Re-embedding lean

The Japanese Cultural and Religious Context of a World Changing Management Concept

Abstract: *James Womack, Daniel Jones and Daniel Roos rhetorically positioned the management concept "lean" for the business world in the early 1990s, claiming that lean would change the world for the better. In this paper, I consider the management concept lean, its relation to Japanese history, culture, and religious ideas that were salient in Japanese reasoning about management at the time lean was developed. I discuss the embeddedness of lean, and relate my findings to the problem of transfer of managerial practices using transfer models, developed in a neo-institutional framework. Contrary to claims by Womack, Jones and Ross that lean can be studied and implemented without regard for the context, I show how practices and attitudes considered central to lean has a long-standing history in Japan. They can be traced back to the Tokugawa period (1600-1868), and were salient in the trading houses of the early modern Japan, in turn heavily inspired by Japanese religious thinking. Research in management fashion suggests that early success case discourse leads to disappointment and abandonment of management concepts later in their life course. Hence, I suggest that the claims of context independence ultimately has led to a declining interest in lean in the business world.*

Organizations all over the world have worked to implement the management concept

called lean. It has been applied to the production of cars and spread to other industries:

hospitals, public administration, insurance companies, airline maintenance, wastewater

cleaning, oil facilities, product development, IT operations and development, product

innovation, process development, accounting, banking, administrative processes in

general, retail buying groups, and service organizations in general (Arlbjørn and Freytag

2013; Arlbjørn, Freytag and de Haas 2011; Corbett 2007; Hansen and Stoner 2009;

Schuh, Lenders and Hieber 2008). Encompassing and reliable surveys on the diffusion

of managerial concepts worldwide are generally scarce (Kipping and Armbrüster 2000),

but available evidence indicates that lean has been widely used. In 2008, a network of

management consultancies conducted a Europe-wide Lean survey (ACE 2008). Among

the respondents, 57 percent used lean, and 20 percent considered using lean. In 2006 and

2007 lean made the headlines of *Industry Week,* and the journal reported increases in the

use of lean, from 36 percent in 2005 to 70 percent in 2007 (Blanchard 2006; Blanchard

2007). One of the major works on lean 'Lean Thinking' had sold 300.000 copies in

English and had been translated into nine languages by 2003 (Womack and Jones 2003).

Labor process theory scholars have long taken an interest in the consequences of

lean production for the employees, whereas neo-institutionalists have tended to focus on

the quality movement. In neo-institutionalism, two approaches intersect: Those concerned with 'global rationalization' and isomorphism, and those concerned with contextualization and local cultural models. In this paper, I combine the latter with neo-institutional fashion theory and discuss implications for adoptions of lean that may inform future research on the implications for employees in a lean production system.

The lifecycle of management concepts

Research in the diffusion of managerial ideas has noted the coming and going of a multitude of management concepts over time (Abrahamson 1996; Barley and Kunda 1992). Surveyed concepts usually gain a sudden rise of attention in the field of management, but after a period with intense interest and debate, they exit the field and disappear from public debate. This boom and bust feature is reflected not only in the services offered by management consultants (David and Strang 2006), but also in the bell-shaped publication curves that characterize these management concepts (see Abrahamson 1996; Abrahamson and Fairchild 1999; Carson et al. 2000). Although some concepts endure for longer periods of time (Abrahamson et al. 2015) and 'tried on,' but abandoned concepts, leave traces in organizations (Heusinkveld and Benders 2012), it is commonly assumed that the early discourse, promoting a particular new management concept, has import on its later

diffusion patterns. The notion of a 'success case' (model) has evolved as a description of the overly enthusiastic discourse that is found in the works, and early advocacy, of many such concepts (Lillrank 1995; Røvik 2002; Strang, David and Akhlaghpour 2014; Zbaracki 1998). Furthermore, the lack of contextual framing in the presentation of concepts is argued to create implementation problems (Lillrank 1995; Røvik 2007; Strang and Kim 2005). After a while on the market for management concepts, adopters gain firsthand experience with the concept, and their experience usually does not match the rosy descriptions found in the management journals and the popular press. Hence, critique enters the discussion (Abrahamson and Fairchild 1999), and researchers, attempting to determine whether the claims set forth are warranted, often accompany the critique. In journals addressing the business segment, critique may also be amplified by editorial choices promoting new information or points of view on a concept (Nijholt, Heusinkveld and Benders 2014).

In the case of lean, Bennett Harrison (1994) was quick to voice critique. Even among researchers, participating in the project leading to the coinage of lean, there was an early dispute on the merits of lean vs. other models of team based production methods (cf Adler and Cole 1993; Berggren 1992; Berggren 1994). More recently, a literature review study on the effect of lean found only 8 studies out of 123 internationally, where evidence of positive outcomes were regarded satisfactory to scientific measures (Arlbjørn and

Freytag 2013). Looking at the *Bains Management Tools & Trends* directory, covering the 25 most used concepts globally in the Bain & Company database, 'Lean Operations' appeared for the first time in 2006 (Rigby and Bilodeau 2007), and was merged with the 'Six Sigma' category in 2009 (Rigby and Bilodeau 2009), only to disappear in subsequent years. This pattern suggest a faddish-like trajectory for the use of lean, as 54 pct. of the surveyed managers answered that they employed Lean Operations in the year 2006, but only 31 pct. said they used Lean Six Sigma in January 2009. Furthermore, Natcha Thawesaengskulthai and James Tannock (2008) suggested that lean was ready to be replaced by a new quality and process optimization concept. Hence, it seems highly relevant to survey how lean was promoted in the seminal texts, and to uncover the context, in which lean was developed.

In this paper, I show that the advocacy accompanying the launch of lean indeed makes very elaborate claims that are not supported by empirical data. I then proceed with a close reading of the early influential texts that brought lean to the business audience to clarify what defines lean. After having considered parts of Japanese history that is important to understand the background for the managerial thinking found in lean, I go on to show that lean appears a highly embedded concept. I do so by juxtaposing excerpts from a classic in Japanese business thinking: *The Path* (Matsushita 2010) published in 1968,

(written by the founder of the large business group *Matsushita,*) with findings from historiographical inquiry into the sociology of religion and society. I finish by discussing the findings in relation to transfer models for management concepts, developed by Paul Lillrank (1995) and Kjell Arne Røvik (2007).

Advocating lean with Universalistic claims without regard for context

The idea of a 'lean production' was based on comparative studies in the automobile industry, primarily in Japan and the western world within the International Motor Vehicle Program (IMVP) at the Massachusetts Institute of Technology, USA (MIT) (Holweg 2006). Lean first described the specific Japanese way of organizing the production and people management, with Toyota as the prime example. James P. Womack, Daniel T. Jones, and Daniel Roos (2007) spread the concept of 'lean' in the book: *The Machine that changed the World – How Lean Production Revolutionized the Global Car Wars*, published in 1990 (Arlbjørn, Freytag and de Haas 2011). In the book, Womack, Jones and Roos (2007) state that:

> "… we've become convinced that the principles of lean production can be applied
> equally in every industry across the globe and that the conversion to lean production
> will have a profound effect on human society – it will truly change the world."

Womack et al. considered the Japanese culture, mentality, and structural aspects of the Japanese society irrelevant to the observed performance in the car industry. They ascribe the 'world changing' characteristics of lean purely to the concept. Later they continue:

> "We believe that the fundamental ideas of lean production are universal – applicable anywhere by anyone – and that many non-Japanese companies have already learned this. …We pay little attention to the special features of Japanese society …, the often alleged inclination to subordinate personal desires to group needs, and the willingness, even desire, to work long hours, … the tight relation between government and industry …, and the pervasive distinction between foreign and Japanese." (2007: 7).

About significant Japanese cultural and structural contexts on a societal level the authors note that: "… other countries adopting lean production would neither want nor need to copy [these]" (2007: 7). The first edition concludes with a hopeful vision for how lean-production will replace mass-production with the words: "That world will be a very different, and much better, place" (2007: 285).

The initial vision by Womack et al. (2007) was societal engineering through a change in the way people in western societies work and collaborate in any sector and industry where work is carried out: The positive outcome is considered independent of the

context. A central tenet of the original argument was that lean production - as pioneered by Toyota - is the explanation for the late 20th century economic success of Japan. Womack et al. (2007) claim that the adoption of lean will change the fate of nations: they claim that the same economic up-turn will happen in other nations that use lean. The revolution of lean equals that of the movement from craft production to massive industry production as during the industrial revolution. Throughout their works, however, it is unclear whether the data supporting these claims comes from Toyota, the Japanese car industry, or disparate case studies in production companies.

In 1994, Womack and Jones clarified the vision of the diffusion of lean. In the article, they now clearly contrast lean, as a business system, with the business systems of the American, German and Japanese traditions (Womack and Jones 1994). This article therefore is the point where the empirical grounding of the concept of lean becomes detached from any specific larger empirical context.

Central ideas in lean management

Below, I present some of the central ideas that Womack et al. (2007) and (Womack and Jones 1994; Womack and Jones 2003) described as central to lean. Scholars of lean management might find my choice of aspects selective, as my goal is to show how central

aspects of lean are highly culturally embedded, rather than giving a full account of how Womack and Jones understand lean. I focus on: (1) long-term thinking and collaboration; (2) banish waste and serve the customer; (3) continuous improvement through practical knowledge; (4) perfection through standardization; and (5) create flow and harmony in your production.

First, Womack and Jones place great emphasis on the long-term thinking in a lean enterprise, and they clearly distance their concept from the one of virtual co-operations where business partners come and go on an ad hoc basis (Womack and Jones, 1994: 94). The lean enterprise with its collaboration strategy across companies is a stable entity with a long-term perspective and a continuous commitment to improvement. Womack and Jones claim it takes 5-10 years to implement lean and build the right spirit. In the case of Toyota, Womack and Jones (2003: 239) relate that it took 35 years to build a lean enterprise type of collaboration around the company, although even Toyota is not yet a full-blown lean enterprise, as Womack and Jones envision it.

Womack et al. (2007: 100) repeatedly stress that a key element in management practice is respect for the workers, trust and delegation. In their understanding, these keywords are tied to a mutual commitment between employer and employees, meaning that

a company does not lay off employees even in downturn periods as part of the long-term thinking, discussed above.

Second, a key aspect of lean thinking is to eliminate waste – called *muda* - in the entire production process. Examples are rework; production of items or service with no demand; inventories; unnecessary process production steps, movements by employees, transportation; and any downstream idle (Womack and Jones 2003). Womack and Jones (2003: 37) place great emphasis on creating data for application in improvement activities to create the order and clarity needed for a lean system with as little inventories as possible, and to eventually make perfect the system.

Cutting out inventories in the production process creates a permanent state of scarcity in every part of the production process; hence, it is vitally important that everything is in a constant flow. The experience of scarcity in every linkage of the production is also the prerequisite for enabling customer demand to 'pull' goods through the system, but it equally makes the system fragile, as there are no buffers: lean is a frugal and delicate production system. And lean is a system, where the entire value chain should be strictly focused on the needs of the end user (Womack and Jones 2003).

Third, continuous improvement should be made by using practical knowledge. There is a 'go see for yourself' approach in lean, especially when a problem occurs. The

principle pertains to the way the whole production is laid out and organized: People

working together on projects are usually situated physically near to each other to facilitate

knowledge sharing. Face to face contact is valued, including in factory layouts, so that each

member in a team can see the other team members at all times, and see the other teams as

well, as far as practicalities permit (Womack and Jones, 2003: 205).

A feature of lean management is the effort *not to separate* thinking and doing

(Womack and Jones, 1994: 101) as opposed to Taylorism. Therefore, lean emphasizes

having the employees conducting a certain task also do the thinking on this task: the

knowledge is in the doing, the relevant thinking about improvement is reflection in action.

The knowledge of the employees on the shop floor transfer into suggestions for improving

the production system via a 'suggestion system,' the idea being that every employee

relentless seek to apply her or his knowledge to improve the work.

Continuous improvement – termed *kaizen* – applies in principle to everything the

organization does, and is carried out in principle by every employee, assisted by kaizen

teams. According to Womack and Jones, kaizen should be understood as a *continuous*

effort to make small incremental improvements towards an ideal state of perfection, and a

commitment to testing the improvement in practice before moving on to the next

suggestion. Hence, the heart of lean is the commitment to small incremental improvements.

However, in what is called *kaizen events* everything in the production process is 'turned upside down' to achieve *radical changes*, and these events are considered a crucial part of implementing lean, as well as a returning endeavor, outside the continuous kaizen process.

The fourth crucial point is obtaining perfection through the standardization of tasks (Womack and Jones, 2003: 60), the logic being that if processes are not standardized, it is not possible to obtain flow through utilization of consistent production data. Therefore, every part of the work routine is precisely described, and measured in great detail. The work routine is done in the same way every time, by every worker. The attention to detail enable continuous perfection and improvement through modifications of the work routine, designed by the team of workers responsible for the work, in collaboration with the team manager. Striving for perfection, with zero deficits and inventories, is portrayed as springing from the two kaizen activities discussed above (Womack and Jones 2003).

And fifth, one must create flow and harmony. Of central importance in reducing *muda* is that the production process is organized so that every stage of production follows the next stage in the actual physical layout in the factory. This means eliminating any large groupings of work types (e.g. painting shops for multiple types of car models in car production), and instead organizing the production of specific product families (e.g. a type

of car) along a string (e.g. with several small paint shops dedicated to each car model). In this way, the entire production can be organized to 'takt time.'

Data collection and effective feedback systems are crucial for obtaining 'takt time,' as 'takt time' needs always to be synchronized with demand through every link in the value chain. 'Takt time' equals the cycle time to complete work on each station in the production process. It is calculated as the available time at the workstation divided by the demand by the customer. The whole production process needs to run precisely to 'takt time' *at any time*, so 'takt time' needs to be defined and redefine continuously. (Womack and Jones, 2003: 56). In short, if everything is organized in an orderly way, enabling precise feedback and data sampling, the system runs smoothly, if not, it crashes.

The institutional and cultural Japanese context in historical perspective

In the introduction, I pointed out how it is difficult to discern the empirical grounding of the lean concept. The authors avoid the link between data and conceptualization. However, the authors frequently contrast 'Western ways' with Japanese ones to make their point, yet the opening and closing argument emphasizes lean's detachment from Japanese ways. In this section, I show how central features of lean seems deeply embedded in Japanese customs

and ways of reasoning about society, business, and production that have a long history and were still salient at the time, when lean was developed.

The historical span of interest is the timeline by which modern Japan was crafted. Therefore, I commence with the Tokugawa or Edo period (1600-1868), a time of relative peace where Japan united in one 'kingdom' under the rule of the 'shogunate,' a feudal system not dissimilar to European ones (Gordon 2003). The Tokugawa regime enforced a caste system, inspired by Confucian thinking with four basic categories: Samurais, Peasants, Artisans and Merchants ordered after their contribution to society and considered a hierarchy of moral virtue. In accordance with Confucianism, merchants' profit making was seen as greed, not contributing to the production of the society (Sheldon 1984). Two strands of development facilitated the growth of cities to a larger extent than it was known in 17th century Europe (Gordon, 2003; Jansen, 2000). First, the shogunate established a system of (alternate) attendance, which meant that the Daimyõ's – the vassal lords – had to live in the capital at regular intervals, forcing them to keep a household there and to make long travels through the country. Second, the Daimyõ was allowed only one castle town each in their domain, and pulled their samurai (the warrior caste) into semi-permanent garrisons there. The development created city life with administration, service personnel, artisans, crafters and traders gathering around the fortresses. A small domain castle town

would have about 5.000 samurai residents who spent their salaries in the city, leading to a commercial economy, including the establishment of trading houses (Gordon, 2003: 13-26; Jansen, 2000: 117, 143-146; Tipton, 2008: 12). The leaders of the public administration were recruited among the higher samurais; one reason why the samurai code has influenced Japanese society, administration and leadership thinking. In 1639 the shogunate forbade foreigners' visits and travels abroad.[1] Consequently, Japan was a country closed off to foreign ideas and influences for more than 200 years (Gordon, 2003: 17).

Riots led to the Meiji-Restoration - and the Meiji period (1868-1912). In the Meiji period, the country opened up to foreigners, and the government and local administration sent Japanese abroad to learn from Europe and the US. New vassal lords led the rebuilding and industrializing efforts of the country.[2] At the same time, the emperor was reinstalled as the head of a political system, partly inspired by western models. However, in searching for a new model of polity, the *Kojiki*[3] was institutionalized as the myth of the founding of Japan (Antoni 2012). Shintoism and Confucianism were given more attention and nationalism was promoted.

Japan did go through immense changes that would qualify for the label *revolution*. However, these changes were staged as a *Restoration* i.e. reinstalling old values and beliefs, claiming that the emperor should be reinstalled and building on the principle that all

Japanese ultimately are heirs of the emperor being in direct linage with the sun god; one big family (Kracht 1984). Even though social changes were immense, and the working class unruly, there was no revolution as in France or the USA, stressing the freedom and rights of the individual (Gordon, 2003: 61-76). There was no Enlightenment instilling new ideas on individualism, no economic theory preaching the common good arising from individual pursuit of happiness and wealth; a way of reasoning deeply ingrained in European and North American thinking. Instead, the new government advocated a 'community model' and nationalism in pursuit of a rebuild of the country.

The watchwords of the Meiji-Restoration reflects that the idea was to protect the country through a thorough development, rather than changing central values. The first watchword from the Tokugawa period "revere the Emperor – expel the barbarians" was replaced by "rich economy – strong army." Finally the saying became "Asian Spirit – Western techniques" (Picken 2009). Ozaki (1978) mention the watchwords "Westerns Knowledge, Japanese Wisdom" and "Western Mind, Japanese Soul," and finds that the 'sponsored capitalism' that was a feature of the Meiji state meant "… that while Western science and technology were devoured as a means of building a strong nation, Japan's cultural hegemony was preserved." The industrial revolution in Japan was politically orchestrated to employ the means of Western technology to preserve and make strong the

Japanese way of thinking. In this effort, Antoni (2012) points directly to a stronger influence by religion, as the watchwords show a combination of technological modernisation, and a reverting to ecclesiastical-religious traditionalism.

After the surrender to the US in 1945, the American administration sought to make significant changes to the Japanese society, with a view to turning Japan into a Western style democracy (Tipton 2008). These efforts were often driven by the conviction that what had enabled the Japanese partaking in the war was an advanced form of feudalism still found in the modern Japanese state. Therefore, the American occupational forces (SCAP) took measures to severely alter the way the Japanese society and the businesses were organized, not least the ownership structure (Bernstein 1995). These efforts lead to changes, but in many respects the Japanese model prevailed (Jansen, 2000: 687-690; Tipton, 2008: 160). When the Korea war broke out, the power distribution altered significantly in the region, as the US needed both local production as well as an economically strong partner. The Korean war also lead to a significant upswing in the Japanese economy (Jansen, 2000: 696; Tipton, 2008: 161).

Understanding Japan as a late industrialiser is a recurrent theme in business systems research (Whitley 1992), and is also called upon in historiography seeking to describe modern Japan (e.g. Gordon, 2003: 98). The enigma of Japan is often discussed, as the quick

rise to first military, and since economic, power puzzled the western world (Bernstein 1995; Sugimoto 2014). Japan's first serious encounter with Western technology is only 160 years ago, and was preceded by 300 years of stable government and relative peace in the Tokugawa period. For 200 of those years the country was more or less isolated from foreigners. The history of early modern Japan meant that 'old traditional ways' and religious beliefs from the three major religions of Japan where salient by the time Japan commenced industrialization.

Religious influences on early trade and public administration

Three religions merge in Japan: Shintoism, Buddhism and Confucianism, the latter two coming to Japan from China via Korea. The thinking of Japanese leaders and the practices described as lean are influenced by these religious ideas. Berengueres (2007) point to the Toyota Production System as being a Confucian influenced system, and the Toyota founder was influenced by religion (Pye, 1989: 293).

A common Japanese phenomenon is the so-called 'house codes' of companies that in some ways resemble the Western idea of specifying company values. In Japan, these are often highly religious in their content, and the practice come from the old

merchant house codes, which in turn were derived from the codes of the samurai households (Bellah 1985; Kitchell 1995; Pye 1989; Ramseyer 1979). Ideally, the employee should internalize these codes as a way to enlightenment, an idea that goes back to the Tokugawa merchant houses (Jansen, 2000: 120). These codes call for discipline, rituals to insure quality, and tidying up (Kitchell 1995; Ramseyer 1979; Sheldon 1983). Below, I show the close resemblance between religious ideas, found in early modern Japanese reasoning about what would be called management today; the thinking of the celebrated Japanese business icon Kōnosuke Matsushita, published in 1968; and the central traits of lean thinking, described above: (1) long-term orientation; (2) banish waste and serve the society, (3) continuous improvement through practical knowledge, (4) perfection through standardization, and (5) create flow and harmony in your efforts. Matsushita is founder of one of the biggest business groups in Japan (including Panasonic).

First, the long-term orientation is linked to many Asian religions. It is salient in the Buddhist rebirth to earthly matters and in Confucian preservation of order and respect for ancestors and elderly. In Shinto religion worship of ancestors as *kami* is salient and rituals celebrating the founders of companies where all employees participate are common (Gaens 2000; Pye 1989).

The Shinto worship of the family naturally extends to the hope for its long-term survival in Shinto and resonates well with the Confucian ideas of preservation of order (Gaens 2000; Kitchell 1995). The family house itself was regarded sacred, and symbolizes the ancestors, including the use of the house name. Robert Bellah (1985: 124) cites a house code: *"We ought to think of ourselves as the clerks of our ancestors"* and another "It is scarcely thirty years until I transfer the house to my child; the time is short and I must think of myself [entirely] as a servant." Mark Ramseyer (1979) has similar examples, and shows that the long term perspective and concern for the family house is linked to caution and the preservation of the capital of the house. He cites a house code: "a man's most important duty is to keep intact the fortune he inherits from his ancestors" (Ramseyer 1979). The long-term perspective that is part of the official Toyota values and commonly attributed to Japanese businesses is supported by religious values. The lean long-term perspective advocated by Womack and Jones in the face of short-term interest in economic gains, known as a prevalent practice in Anglo-Saxon economic thinking, resonates well with these religious roots in Japan.

Second, frugality and avoidance of waste are trademarks of a Zen community, and the same is true of Confucianism. In his review of house codes of Tokugawa merchant families, Ramseyer (1979) points to frugality as a salient feature and gives this example:

"pick up bits of trash and to use the pieces to make rope, plaster, or paper." The actual

clause in the house code ends with the sentence: "Do as I have done, and waste absolutely

nothing" (Ramseyer 1979). Bellah (1985) gives the following example: *"He [a merchant]*

always told his family members and followers not to waste anything necessary for everyday

life, because by doing so one would commit a sacrilege to creation." In discussing a

Daimyõ taking advice from a Confucian scholar in Tokugawa times Bellah says: "He [the

Daimyõ] adopted his fundamental maxims "To have no waste places in his domains." and

"To have no idlers among his people." Hence, frugal living and the effort to avoid any

waste is central to both samurai and merchant ethics. As the samurai became business

leaders (Crawcour 1963; Jansen 2000) it is not surprising that a concept seeking to reduce

waste was developed in Japan *and* that the concept used modest machinery in contrast to

the machinery used in mass production, as portrayed by Womack and Jones.

    The samurai ethic demands service for the Daimyõ and for society. Under the title

"The meaning of Your Work" the Panasonic founder Matsushita (2010: 98) says:

> "Any kind of work is valuable if it is needed by society. If an activity is not sought
>
> after by people in society, it does not stand as "work".… We cannot indulge
>
> ourselves with the notion that we do our work for ourselves. Rather, we do it
>
> because we are asked to do so by society. Therein lies the meaning of work."

This quote echoes Confucian thinking (cf Bellah, 1985: 112). It also shows something important for the reasoning in lean. First, work is not done only for the company, it is to benefit society, and if it doesn't, it is not work, hence it is waste. Second, the emphasis on serving the customers' needs in lean is a way of serving society; the customer in that sense *is* society. And hence, the meaning of work is to make sure that everything one does in the work ultimately serves society. This becomes even clearer when we consider another quote (Matsushita 2010): "If we are serious about our manufacturing, conscientious about sales, and truly passionate about our work, we want to know what happens to our products …." He continues to relate how we would want to follow our products into the houses of people, to know if the products work well, need service, and so on. Further along in Matsushita's *The Path*, the link to religion becomes obvious:

> "Business can be seen as having some of the qualities of religion. The true purpose of business is like-wise to provide that which society desires through the best service that can be offered, thereby elevating the standard of living and enhancing the convenience and richness of daily life." (Matsushita, 2010: 116).

The frugal disposition, discussed above, is directly linked to the service of the customer as a representative for society. In the traditional understanding of Japanese religions, you work for the society, and this is reflected in the fact that the Tokugawa merchant class *did*

not attempt to legitimate that egoism, or individual drive to make a profit, contributed to

society. Rather, being the lowest class, considered idlers or free riders in a Confucian

understanding of society, they claimed that their activities *had a role in society by*

supplying goods and thereby profiting others, making it *acceptable* that they too profited

from the service to society (Bellah 1985; Honjo 1965; Ramseyer 1979). Hence, profit is

justified by the direct service of society. In the modern lean production, the same type of

reasoning conveniently carries over to the expectation towards the assembly line workers.

When the daily quota is not reached, due to problems on the production line, the workers

are required to do overtime work (Besser 1996; Ikuko 1999), since the idle time stemming

from upsets in a 'no slack' system does not add any value. The job only finishes, once the

'daily value' has been delivered, namely the quota the customers, pulling from the system,

require.

  Third, continuous improvement through practical knowledge is similarly connected

to religious values. Confucian learning stresses the practical value of knowledge (Gordon,

2003: 36). This resonates well with on the job training by more experienced colleagues in

the specific circumstances where the learning should be applied. The 'go see for yourself

approach' found in lean, can even be traced in the house codes discussed earlier (see

Ramseyer 1979). As we have seen above, making problems surface in a fragile production

system and learning from solving problems is a centerpiece in lean thinking. About the Tokugawa time attitude to the apprenticeship Bellah (1985: 50) writes: "It was felt that only through error could one learn and that too severe scolding would make the clerk overly dependent on others and destroy his business spontaneity". Accordingly, when discussing the public administration carried out by early samurai leaders, Steenstrup (1973) stresses the importance of allowing initiative coming from subordinates, due to the collective management features built into the system. Even the practice of a suggestions system among workers, is found in the old merchant house codes (cf Ramseyer 1979). When discussing the Buddhist influence in Tokugawa reasoning Bellah (1985) says: *"Something unexpected, some seemingly disharmony, is more apt to reveal the Truth than any formal orderly teaching."* Hence, learning is connected to religious enlightenment.

Learning is generally considered a strong cultural value in Japanese society, but learning should be fulfilled in practice (Bellah 1985; Steenstrup 1973). Therefore, skill is high in esteem. According to Bellah, skill was seen as having an almost religious significance in Tokugawa times, because skill involves mastery over oneself, which is a trademark of enlightenment (Bellah, 1985: 36). Under the title 'Better Ways of Working' Matsushita (2010: 98-100) says:

> "The worker who puts in an hour longer than anyone else is praiseworthy….
> However, a person who puts in an hour less that he or she previously did but whose
> output has increased – that person too is praiseworthy…. Innovation generates
> prosperity for society."

Innovation comes from continuous reflection on practice, creating mastery, as it is preached in lean: "Thus it is all the more important for businesses … to value the practice of taking stock and reflecting on their practices each day" (Matsushita, 2010: 121).

Continuous improvement – each day – is about teaching and learning, as it is advocated in Confucian thinking: "So naturally people who produce good ideas and good wisdom are those who are at the same time good at learning" (Matsushita, 2010: 148). The cultivation of the self through continuous learning serves a purpose that goes well beyond the self in many Asian religions. According to Bellah (1985: 75) the Confucian practice of moral self-cultivation is an attempt to attain unity with the universe through moral action. The advocacy of continuous improvement – each day – is also found in Shinto tracts (Bellah, 1985: 118). The stressing of continuous improvement – *kaizen* – in lean and the focus on close attention to practice and sharing knowledge of that practice resonates well with the religions practices in Japan through centuries. These practices aim at personal mastery and skill.

Fourth, standardization was promoted early by the Japanese state, by giving guidance on standardization and quality as early as between the wars. Due to horizontal groups – e.g. village cooperatives – these efforts to innovate could spread quickly (Jansen, 2000: 530). Furthermore, standardization in production was early cultivated in Japan. In the Tokugawa era, items like floor mats, other housing materials, and clothing had standard measures (Bellah, 1985: 29).

The standardization - crucial to lean - is highly concordant with, religious rituals for personal development and perfection; a perfection leading to the empty mind of the enlightened Buddhist, to a worldly, but awaken, detachment. Ritualized customs for proper social conduct are a salient feature of Japanese society; e.g., the bowing in the department stores for customers leaving. These common day customs goes back to the highly ritualized Samurai codex with religious roots (Steenstrup 1973), as employed in the trading houses and later in companies in general.

Calls to make very precise measurements of work routines, in order to allocate only the exact scarce resources, are also in the merchant house codes discussed:

"Calculate as well how much firewood the house uses in a month.... Make sake, boil soup, and cook one koku of rice yourself, to find out just how much firewood a person needs for those tasks, and find out, as well, the amount of cinders one bundle

of firewood produces. From then on, hand out the exact amount of firewood to be

used for each task, and make certain you collect the proper amount of cinders

afterward." (Ramseyer 1979)

While this quote does not prove that lean thinking (or Taylorism) was already practiced in

the Tokugawa period merchant houses, it shows that the frugality, found in the ideologies

of the culture, can lead to the recommendation of elaborate measures to map and measure

work processes, as well as to a standardization of work that requires great discipline. The

management philosophy of Matsushita (2010) reflects the discipline needed to accomplish

this standardized conduct:

"Discipline is only difficult when you think of it as harsh. When, however, the

codes become part of your daily life, then you find that they are no longer

confining. It is when a person ceases to feel that these codes are confining that he or

she begins to exude the beauty of a polished human being."

The Western idea of expressing oneself freely in order to show one's real *inner*

personality, the drive for authenticity that was put on the agenda by Jean-Jacques Rousseau

in 1762,[4] does not conform well to this type of discipline. Womack and Jones relate how a

highly skilled worker dislikes lean, because everything is ordered; everything is running in

harmony, so there is no constant firefighting needed; the firefighting where he used to

excel, showing his talents (Womack and Jones, 2003: 116). Buddhist Zen-training, as the samurais performed it as part of their daily conduct, is in contrast highly ritualized and therefore standardized. The road to enlightenment is through perfection of the ritual. In addition, adhering to the customs is closely monitored by peers, who would not expect or welcome a personality revealing deviation from the etiquette (Steenstrup 1973). Sugimoto (2010) describes how contemporary corporate life in large Japanese firms is still permeated by rituals, and how employees are monitored by superiors.

Fifth and finally, I see the efforts to create flow and aligning processes through takt time in lean as a token for creating harmony; each thing at the right place to the right time. This is a very salient Confucian value, and as we have seen above it pertains to the orderly way societies should be organized in four castes. Smoothening and avoiding friction is typically a major concern in Japanese thinking. This way of thinking goes back at least to Tokugawa times, where a great deal of everyday life was formalized through detailed prescriptions for behavior (Bellah 1985).

Conveniently, the combination of discipline, harmony, co-prosperity, and reverence for ancestors could also be called upon by the Japanese business' to resists labor laws that would protect workers, and in the formulation of the roles of the company workers associations in the early 1900 business groups (zaibatsus) (cf Crawcour 1978). The idea of

'Japan as a family in harmony' is a powerful ideology, and the ideology has consequences for the individual too. Creating harmony is a goal in Confucian thinking, connected to a strong personal discipline that merges well with the Buddhist interpretations in samurai ethos. In the words of Matsushita (2010):

> "… by observing a set of order of events each morning and evening, you establish a rhythm and rigor in your life. A certain degree of regularity is important in whatever we do.... By establishing some rules in small aspects of life, we can cultivate the resilience and strength to succeed in big tasks. Discipline is important in cultivating rigor and regularity."

Further, in discussing Confucianism and society Bellah (1985) puts it this way: "If each part fulfills its function all will go well. If any part gets out of kilter the whole system is apt to be upset."

The relation to the delicate lean system described by Womack and Jones is striking. The vision of a production were everything progresses in perfect harmony through 'takt time,' and standardized measures, all the way through the value chain in the company – or in their elaborate vision – all the way from the supplier of raw materials, through the production to arrive at the customer just in time, when needed, seems closely to resemble Confucian ideas. In Christianity harmony tends to be associated with the next world,

whereas earthly matters are inherently messy, and not expected to be anything else. The Christian (mystic) traditions that have preached striving for personal perfection and harmony with the universe have traditionally not been part of the mainstream churches. The house codes discussed above may not always have been followed (Jansen 2000; Sheldon 1983), but they form a powerful ideology that enables us to understand the lean concept in the context of the early Japanese trading houses that served as the model of the later business groups (zaibatsus and keiretsus).

Discussion

The claim set forth in this paper is twofold: A) The early organization of the Tokugawa state, including its large cities, and the ambitions of the Meiji-Restoration, have had decisive influence on the way larger corporations got structured and operated in the postwar period, when lean was developed. It further influenced the mindset of managers that the Meiji-Restoration emphasized a rebuild and quick industrialization of the country in combination with a return to old religious ideas and nationalism. B) The administration and the trading houses in early modern Japan were influenced by samurai ethos, which meant that this particular mindset had a decisive import on the mindset of Japanese business life,

at the time lean was developed. The samurai ethos is in turn highly influenced by religious ideas.

Taken together these circumstances influenced the 'taken for granted' assumptions' in the organizations where lean was developed, including at Toyota, Japan. Hence, these factors influenced the institutional logics that played an important role in the evolvement of the practices that Womack and Jones conceptualize as 'lean' culture or as "lean thinking." In short, I claim that national culture influences organizational culture, and dominant ways of reasoning within organizations.

These factors are crucial for understanding lean, and shows that lean is highly embedded in particular assumptions about work, workers attitudes etc.. Below, I discuss the implications of the embedded character of lean in the light of neo-institutional theory, and the transfer models, developed by Lillrank (1995) and Røvik (2007).

Thomas Janoski and Darina Lepadatu (2014) have recently suggested that lean is becoming a dominant division of labor, replacing e.g. Taylorism. The transfer models, developed in a neo-institutional framework, can add to our understanding of what type of practices might diffuse from lean, as a management concept, and may explain some of the variations in the labor process Janoski and Lapadatu identify in their work.

Both Lillrank (1995) and Røvik (2007) assume that management ideas are discovered in a particular locus. That locus may be an industry (e.g. the automobile industry), an organization (e.g. Toyota) or a country (e.g. Japan). The locus may be an abstraction, but the point is that a certain homogeneity can be assumed, or just imagined, within that locus. The locus also serves to give the idea authority (Røvik 2002). To travel in time and space, however, these ideas need conceptualization[5] – i.e. they need to be packaged (Røvik 2002; Røvik 2007) or theorized (Strang and Meyer 1993). In the case of lean, Womack and Jones deduced five principles, and claimed that a selection of companies was hugely successful, allegedly by virtue of rigorously following these five principles. The abstraction – or theorization – address certain audiences, who can liken themselves to the original locus in some way (Strang and Meyer 1993). In the case of lean, Womack and Jones point to every organization that has a work process in order to function (Womack and Jones 1994). The abstraction also provide "interpretative viability" (Benders and Van Veen 2001) or "pragmatic ambiguity" (Giroux 2006), allowing adopters some slack in their application of the particular concept.

Once the concept travels, and is selected for adoption in a different locus than the one where it originated, it needs unpacking –i.e. interpretation or translation (Røvik 2007), or (re-)theorizing (Strang and Meyer 1993). The codified abstraction of a practice

elsewhere, found in management concepts, should be meaningful to local managers, to the extent that it 'speaks' their language, and the same is true for the employees. However, the interpretation will be made according to the culturally shaped "taken for granted" assumptions in the particular locus – i.e. the institutional logics (Strang and Sine 2002). For instance Cole (1989) showed that managers in Japan and the USA had very different perceptions of what they were doing, when they implemented quality circles.

Janoski and Lepadatu's (2014) discussion on the inappropriateness of the phrase lean is similarly illuminating here. They relate that the term 'lean' is largely not used in Japan, and should rightly be called 'lean, long-term and loyal.' However, lean has often been understood in the western world as 'cost-cutting,' which is confirmed by Womack and Jones (2003) own statement that the sales of their book took a marked up-swing by the time of the previous financial crisis. Accordingly, Benders and Van Bijsterveld (2000) have detailed how lean was predominantly understood as 'downsizing' in a German context. Similarly, Appelbaum and Batt (2014) have recently shown that the discussion on the restructuring American workplaces in the wake of problems experienced after the oil crisis' (eg Appelbaum and Batt 1994), was in effect constrained by the idea of shareholder value and short term profit maximization. The concept of lean was advocated as a solution in this discussion, and the phrase connotes the opposite of (undesirable) fat. In contrast, Japanese

leaders are often quoted for the belief that market share and turnover is driven by quality, and that they therefore focus predominantly on quality and has a long-term orientation in decision-making (Janoski and Lepadatu 2014; Picken 1987).

Such observations raise the question of the 'distance' the concepts travels. According to Lillrank (1995), "The 'distance' is not only geographical, but mental, due to differences in culture, society and history, as well as strategic paradigms." Given the embedded character of lean shown above, it is therefore likely that the diffusion of lean as a management concept leads to locally diverging models of lean management that uses the same umbrella term (lean) for practices that may not resemble the 'original' in any precise way (cf Benders and Van Bijsterveld 2000). The study by George Easton and Sherry Jarrell (1998) on the application of Total Quality Management, and the methodological difficulties discussed by Jan Arlbjørn, Per Freytag and Henning de Haas (2011), in determining the use of lean, showcase how organizations might have very different understandings of what it means to 'do lean.' Illustrative for the point about 'travel distance' is the work of Besser (1996), showing how Toyota, when setting up the Camry plant in Kentucky, made the American shop floor managers witness and participate in the workings of the Toyota Production System on site in Japan. Toyota also took great care not to hire any workers, who were already socialized in other American production companies.[6]

Other scholars before me have suggested that the Japanese customs in quality improvement seem to have a connection to the three dominant religions in Japan (Berengueres 2007; Dahlgaard 2000; Dore 1973). None, however, have linked this thesis directly to the claims set forth in the early influential writings on lean, and showed how these writings rely on 'worship' of Japan, without recognizing the role of the Japanese background.

It is possible that the lack of cultural fit, suggested by the analysis above, will contribute to a faddish lifecycle for lean as a management concept. In a study of hospital adoptions of Total Quality Management, it was found that early adopters tended to modify the concept to local circumstances, whereas later adopters tended to conform to the normative patterns of the concept (Cole and Scott 2000). This finding is widely theorized in the diffusion literature (Ansari, Fiss and Zajac 2010). As late adopters look to highly profiled first adopters featured as 'success cases' in their search for new concepts (Strang, David and Akhlaghpour 2014), they may encounter unintended consequences during implementation, because unfitting concepts are implemented without regard for the influence of their original contexts.

Notes

1) Dutch traders had restricted access through the port of Nagasaki (Jansen 2000).

2) It is beyond the scope of this paper to detail the events leading to the Meiji Restoration and the opening of the country, including the impact of foreign military power from the arrival of commodore Perry's 'Black Ships.' See Gordon (2003); Jansen (2000); Tipton (2008).

3) The Kojiki is a collection of myths on the origin of Japan. It is the oldest chronicle in Japan, dating from around 711–712.

4) In (Rousseau 2008): Rousseau, Jean-Jacques. 2008. Emile. Champaign, Il.: Book Jungle.

5) Lillrank uses the metaphor of low and high electrical current for the process.

6) This policy was employed at the time of startup, during the formation of the company culture. It no longer applies as a general principle (Lepadatu and Janoski 2011).

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