‘Fake Lean’; On Deviating from an Ambiguous Essence

Jos Benders[1,2(✉)], Marte Daae-Qvale Holmemo[1], and Jonas A. Ingvaldsen[1]

[1] Department of Industrial Economics and Technology Management NTNU, Alfred Getz vei 3, 7491 Trondheim, Norway
jos.benders@ntnu.no
[2] CESO, KU Leuven, Leuven, Belgium

Abstract. The term ‘fake lean’ is useful as it points to the various ways in which lean is put into praxis. At the same time, ‘fake’ in this expression condemns particular uses. Against the background of literature on organization concepts, we discuss the notion of ‘fake lean’. This essay centers around the tenability of the essentialist norm inherent in ‘fake lean’. We encourage users of ‘lean’ to reflect on how they put it into practice, and whether or not they decide to ‘fake’ this organization concept.

Keywords: Fake lean · Lean principles · Organization concepts · Continuous improvement

1 An Appealing Term; or is it?

The term ‘fake lean’ works as a powerful formulation to warn against improper uses of ‘lean’. It was coined by Emiliani [1], who targets in particular the use of continuous improvement without involving shopfloor employees. More generally, ‘fake lean’ seems an appropriate label for what are seen as incomplete or erroneous lean applications [f.i. 2–4]. The term is intuitively appealing for drawing attention to different uses of ‘lean’. In addition, Emiliani’s critical stance reminds us that employee input in operational affairs is quintessential for organizations to survive or even flourish. This seems ignored when lean is used to legitimize dismissals [5], or strengthen managerial or expert authority [6]. Thus, at face value ‘fake lean’ appears to be a useful notion. Nevertheless, or perhaps therefore, with this paper we aim to problematize the notion of ‘fake lean’. The term does two things:

1. point to the variety of uses to which ‘lean’ can be put; and
2. qualify some of these uses as improper.

We discuss both aspects against the more general background of ‘organization concepts’, as we prefer to call prescriptive ideas on organizing. The purpose of our exercise is to make users of ‘lean’, such as consultants, industrial engineers and managers, reflect on the design potential of lean, how they use this potential, and normative implications of their uses.

Published by Springer Nature Switzerland AG 2021
D. J. Powell et al. (Eds.): ELEC 2021, IFIP AICT 610, pp. 227–234, 2021.
https://doi.org/10.1007/978-3-030-92934-3_23

2 Organization Concepts

An organization concept (OC) consists of 'prescriptive notions on how to manage or organize, promising performance improvement, meant for consumption by managers, and known by a particular label' [7]. They are characterized by what we prefer to call 'interpretative viability' [8]. In other words, for ideas to be disseminated at a large scale, they must appeal to different parties, each of which can interpret the ideas in their own way(s). The interpretive space presents a design potential: users can tailor OCs to their own preferences and situation. At the same time, this interpretative space means that concepts can be criticized as being ambiguous.

There is a substantial market for organization concepts. At any moment in time, managers tend to be faced with numerous issues to improve. Its vendors present OCs as solutions to such issues, and promise performance improvement. Books and other publications promoting OCs are not balanced academic accounts of the pros and cons of a concepts; instead, they emphasize the need, the feasibility and advantages of implementing an OC. Management consultants are the main providers of OCs. They have a vested interest in selling these ideas, earning money by assisting their customers in tailoring OCs to those customers' situation. Within organizations, the use of an OC means selecting and adapting (parts of) its content. Often staff at all hierarchical levels is involved, which may all give their own twists to how, and if, an OC is actually put into practice. The ultimate changes from such transformation processes may vary from full-fledged realization of the original content to dilution of that content and purely ceremonial adoption. Yet in all cases, tailoring the OC to a user's situation necessarily involves interpreting how the OC may be put into practice in that particular situation. Analytically, we distinguish between three different modes of interpretation:

1. Make abstract ideas concrete;
2. Use ideas selectively;
3. Ceremonial use (variants (1) impression management and (2) legitimating actions).

3 Lean-Inspired Changes in Practice

In an illustrative fashion, we now show how lean has been interpreted in the three modes distinguished above.

Make Abstract Ideas Concrete. According to Womack and Jones [9], the first lean principle is to specify customer value. The principle explicitly calls for making the abstract concrete, i.e. specifying what value is for the customers to be served. This may be quite clear if customers can specify their wishes, as may be the case when ordering a car or truck. Yet even when producing trucks, Johansson and Osterman [10] show that experienced industrial engineers found it hard to agree on specifying 'waste' and 'value' in production processes. Such interpretive difficulties abound when 'lean thinking' is applied in service industries and especially in healthcare. Whilst achieving a high 'quality of care' is of paramount importance to medical disciplines, it is nearly impossible to come up with uncontested specifications of that quality of care, let alone

operationalize those. This is for instance evident in discussions on how euthanasia relates to quality of care/value for the patient. Such difficulties were the reason why within a Dutch network to promote lean healthcare this issue was skipped at the favour of a focus on continuous improvement [7].

Another issue may arise when different principles are applied simultaneously. Picture 1 shows the re-organized storage racks for incontinence diapers in a Flemish nursing home. The previously existing storage was reorganized by the nursing home staff so that they could now easily pick the right diapers and replenish timely. The picture was taken during a tour in the presence of the home's director and the director of another nursing home. The latter remarked that this was not lean in his view because of the substantial variation in different types of diapers. In his home, the choice was confined to a much smaller number of types from which the residents could choose, so that logistics handling was easier. As response, the organizing home's director pointed out that, following the first lean principle, residents were given the choice of their preference. This indeed lead to considerable variation, yet in this case it was seen as wanted variation. This example illustrates how both directors prioritized different principles, with different results (Fig. 1).

Fig. 1. Re-organized storage of incontinence diapers in Flemish nursing home (2017)

Selective Use. The use of 'lean' tends to be selective. One example was already discussed above in the deliberate choice to prioritize CI in 'lean health care' and

leaving implicit what 'quality of care' is. More generally, only some lean elements rather than the entire package tend to be part of implementation efforts. The fourth principle, 'let the customer pull value', even appears hardly ever included in service industries, as it seems self-evident and therefor superfluous in services based on interacting directly with customers. The second and third principles focus on creating flows, and seem often applied in isolation. Furthermore, this 'value stream mapping' (VSM) tends to focus on single flows and generally does not take account of situations where several flows interact. In that case, compromises must be made whereby creating a perfect flow for one particular process tends to hamper the flow of other processes. Thus, even within one organization applying VSM entails selecting processes to be optimized at the expense of other processes. Perhaps the most prevailing mode of selective use concerns equating lean with CI. Below the level of principles, attempts to implement lean are often classified as 'tool based', i.e. particular tools and/or practices are used without the 'lean philosophy' or principles.

Ceremonial Use. Implementing concepts can be a long lasting process, certainly if behavioral changes are intended. It is not uncommon that high failure rates are reported in organizational change efforts, and thus also for attempts to implement a concept. In such case, the original intention easily dilutes in the process of being implemented [11]. The outcomes of such change programs tend to drift from the original intention, and as such these outcomes can be perceived as ceremonial. Another cause for ceremonial use is when a concept is fashionable, and managers feel pressured to keep up the appearance that their organizations are in tune with current developments. A strong version of such 'going with the flow' is when a concept is purely used to legitimate organizational changes, irrespective of whether or not these changes are related to the concept's content. In that respect, 'lean' is particularly powerful as it denotes both a particular way of conducting performance improvements as well as its result. The term 'lean' is also used as adjective, whereby lean stands for slim and fit and as antonym to 'fat'. Indeed, instruments have been developed to measure 'leanness' focusing on how well organizations perform rather than how they achieved these results. Such use became particularly apparent in the first half of the 1990s. *The Machine the Changed the World* happened to appear at the brink of an economic crisis, which created fertile ground for the message that organizations needed to become 'lean'. This was at a large scale interpreted as motivation for a large array of cost-cutting measures with an emphasis on downsizing and delayering [5], and gave rise to the statement 'lean is mean'. The Dutch truck manufacturer DAF is a case in point: many employees were fired in an (ultimately unsuccessful) attempt to avoid bankruptcy [12].

4 Lean Back and Beyond Toyota

At least some of the changes described above may be considered examples of 'fake lean'. Detailing which ones, however, requires specifying the content of its opposite, 'real lean'. As we argue below, that is easier said than done as over the course of time there has been considerable debate over lean's essence.

'Lean' and Toyota are closely connected, yet not identical. As of the mid-1930s, the engineer Taiichi Ohno [13] started developing what was to become the 'Toyota Production System' (TPS). Already at the start of his career, Ohno developed three insights which he found essential [14]:

1. organize along product flows rather than by functions;
2. make small rather than large batches;
3. prevent rather than repair.

He incorporated these ideas, and many others, throughout the 1940s and 1950s into a coherent whole. This lengthy trial-and-error development process amounted into the TPS. His ideas drew considerable attention from Toyota's competitors, but remained largely unknown beyond Japan until in 1977 Sugimori and three other Toyota officials published a first paper in English which sketched the main TPS outlines [15]. In the 1970s Japanese mass producers started outcompeting American and European competitors, leading to many searches into the source(s) of their success.

In retrospect, a landmark event was the reception of the book *The Machine that Changed the World* in 1990 [16]. Based on extensive quantitative research its messages were that (1) 'lean production' of passenger cars lead to far superior performance than the ways 'Western' producers worked, (2) the latter had to take over this way of producing or face bankruptcy, and (3) taking this over was feasible. The book's launch was shortly before a severe economic crisis set in, creating an ideal setting for this message. In 1996, 'The Machine..' was followed up by another book entitled Lean Thinking. Its authors Womack and Jones presented the following motivation to write this: 'many readers (authors: of 'The Machine..') […] told us that they were anxious to give lean production a try. Their question was a seemingly simple one: How do we do it? […] The fact was, we didn't know the answers. We had been busy benchmarking industrial performance […] but The Machine focused on aggregated processes […] rather than broad principles' [9, pp. 9–10]. Thus, the authors presented the following five principles of 'Lean Thinking':

1. specify customer value by specific product;
2. identify the value stream for every product;
3. create an uninterrupted value stream per product;
4. let the customer pull value;
5. pursue perfection (by improving constantly).

The high level of abstraction made it possible to apply lean principles beyond the repetitive manufacturing industries which so far had been the focus of lean-inspired changes. In the final chapter, Womack and Jones 'dreamed' about how several sectors may in the future be transformed by lean principles: long distance travel, food production and distribution, construction, and medical care. Actually, lean-inspired changes were to be initiated, and still are, far beyond the sectors about which the authors had dreamed, including service industries and the public sector. Whereas manufacturing industries were the main focus in the first 'lean production' wave, lean's scope was now broadened to, in principle, all other sectors. The abstract principles opened up many new areas of application, and the 'prehistory' meant that a large

variety of different methods, tools and practices was available and could be drawn upon to make concrete changes.

In the meantime, Toyota developed further. In 2001 and after almost ten years of writing, it published the 'Toyota Way 2001' to make its corporate philosophy and corresponding underlying values and guiding principles explicit. These include continuous improvement and respect for people [17].

The relationship between Toyota and lean can be typified as 'back and beyond'. By calling the production system of Japanese car manufacturers 'lean production', Womack c.s. extended the scope of the Toyota Production System to other Japanese car manufacturers and potentially non-Japanese. A further and more important step beyond Toyota was 'Lean Thinking' with its five principles intended for application in any economic sector. At the same time, in trying to apply 'lean' Toyota is constantly taken as source of inspiration. Yet the company formulated its own principles five years after the 'Lean Principles'. Thus, for some three decades now Toyota and lean are both seen as closely related and distinct which leaves considerable interpretive space as to lean's core.

Continuous Improvement. Some special attention is needed for the principle of continuous improvement (CI), both because it appears to be the core of many lean implementations, and because employee involvement in CI is used as a key criterion to distinguish between 'real' and 'fake' implementations [1]. Toyota officials Sugimori et al. initially called the 'respect-for-human system' one of the two key pillars of the Toyota Production System. This Respect for human system contains: (1) elimination of waste movements, (2) attention for worker safety, and (3) self-display of workers' capabilities by entrusting them with greater responsibility and authority. The latter includes the authority to stop the production line if a worker feels the need, being informed about production progress and 'a system whereby workers can take part in making improvements. Any employee at Toyota has a right to make an improvement on the waste he has found' [15, p. 559]. This initial formulation is very concise, continuity is only implied, and the target of improvements is constrained to reducing waste. Later publications make clear that CI is a well-developed, systematic and disciplined approach within Toyota. The starting point for improvements are standard operating procedures (SOPs). Workers are to follow the SOPs closely. In doing so, they are best placed to observe and experience whether particular SOPs work well. If not, they can signal the issue [18]. Depending on the complexity of this issue, alternatives to the current SOP are investigated, by or in close cooperation with shopfloor employees. Such improvement work requires in-depth understanding of production operations as well as improvement practices, which may take several years to learn [19]. Furthermore, employment security is an important building block: reducing waste such as superfluous activities means eliminating work and thus jobs. Obviously, employees likely refrain suggesting improvements if they threaten to 'engineer themselves out of their jobs'. Equally important, yet hardly addressed in the prescriptive literature, is the importance of creating the right mindset. Besser [20] described the efforts to which Toyota went to create a 'Team Toyota' at its greenfield Kentucky (US) plant.

As Sugimori et al. stated it, involving staff in improvement activities is but one manifestation of 'respect for human'. Again, this principle lends itself to many

interpretations and indeed, translations from Japanese into English. The principle is generally called 'respect for people'. Recently, Ljungblom & Tennerfors [17] proposed to understand and translate it as 'respect for craftmanship' (RFC) in order to capture the essence of what Toyota means.

5 Faking Forward?

As argued in the introduction, the term 'fake lean' does two things:

1. point to the variety of uses to which 'lean' can be put; and
2. qualify some of these uses as improper.

Qualifying particular uses requires specifying lean's essence in the first place. The next step is to compare a particular use to that norm. When the use in question deviates from the norm, that use may be classified as 'fake'.

Our excursion into literature about organization concepts shows that:

1. concepts, such as 'lean', are characterized by a certain interpretive space;
2. using this space tends to result in a variety of applications;
3. there are various modes through which these come about;

It also became clear that lean's interpretive space is considerable, arguably even larger than that of any other organization concept. This makes it hard to pin down its essence. Whilst 'fake lean' assumes the existence of its opposite 'real lean', 'real lean' cannot be demarcated uncontestedly. This holds at the overall level: lean production does not equal lean thinking does not equal the Toyota Production System does not equal the Toyota Way. If we use lean selectively and constrain the term to continuous improvement, a similar issue arises: in the course of time, 'respect for human/people/craftsmanship' has been the focus of interpretive struggles. Pinning down the essence of 'lean' is thus not straightforward, and unavoidably leads to contestable choices.

One choice can be to take CI within Toyota as the norm. Toyota operates a specific and highly disciplined way of involving employees in CI, of which socialization into the 'Team Toyota', extensive training and coaching, and employment security are key building elements. It remains to be seen, however, to what extent this Toyota way of involving employees is (1) desirable and (2) feasible in other organizations and sectors. Taiichi Ohno found inspiration when developing the Toyota Production System in many other organizations and sectors. In doing so, he was not concerned about staying in line with their original intention, but rather how they might fit his own vision. In that sense, he might be seen as a productive faker. In exactly the same fashion, designers who look to lean or Toyota for inspiration should be concerned how its ideas or tools may suit their own context and vision. Formulated differently, using a concept's innovative potential should prevail over a conservative concern for sticking to the original. Educators of 'lean' should pay attention to the design potential as well as the implicit normative stances to increase their audiences' reflectivity, and therewith capabilities to handle the rhetoric and contents of 'lean'.

References

1. Emiliani, B.: Real Lean: Understanding the Lean Management System. The Center for Lean Business Management LLC. Wethersfield (2007)
2. Liker, J.: Toyota Way: 14 Management Principles from the World's greatest Manufacturer. McGraw-Hill Education, New York (2004)
3. Nicholas, J.: Hoshin Kanri and critical success factors in quality management and lean production. Total Qual. Manag. Bus. Excell. **27**(3–4), 250–264 (2016)
4. Thirkell, E., Ashman, I.: Lean towards learning: connecting Lean Thinking and human resource management in UK higher education. Int. J. Hum. Resour. Manag. **25**(21), 2957–2977 (2014)
5. Benders, J., van Bijsterveld, M.: Leaning on lean; the reception of a management fashion in Germany. N. Technol. Work. Employ. **15**(1), 50–64 (2000)
6. Alcadipani, R., Hassard, J., Islam, G.: "I Shot the Sheriff": irony, sarcasm and the changing nature of workplace resistance. J. Manag. Stud. **55**(8), 1452–1487 (2018)
7. Benders, J., van Grinsven, M., Ingvaldsen, J.A.: The persistence of management ideas: how framing keeps 'Lean' moving. In: Sturdy, A., Heusinkveld, S., Reay, T., Strang, D. (eds.) The Oxford Handbook of Management Ideas, pp. 271–285. Oxford University Press, Oxford (2019)
8. Ortmann, G.: Formen der Produktion: Organisation und Rekursivität. Westdeutscher Verlag, Opladen (1995)
9. Womack, J.P., Jones, D.T.: Lean Thinking: Banish Waste and Create Wealth in Your Corporation. Simon & Schuster, New York (1996)
10. Johansson, P.E., Osterman, C.: Conceptions and operational use of value and waste in lean manufacturing–an interpretivist approach. Int. J. Prod. Res. **55**(23), 6903–6915 (2017)
11. van Loenen, V.G.M.W.: Lean in (inter) actie: twee perspectieven op een ontwikkeling van Lean. Doctoral thesis. Radboud University Nijmegen (2021)
12. Benders, J., Slomp, J.: Struggling with solutions; a case study of organisation concepts at work. Int. J. Prod. Res. **47**(18), 5237–5243 (2009)
13. Ohno, T.: Toyota Production System: Beyond Large-scale Production. CRC Press, Boca Raton/London/New York (1988)
14. Fujimoto, T.: The Evolution of a Manufacturing System at Toyota. Oxford University Press, New York (1999)
15. Sugimori, Y., Kusunoki, K., Cho, F., Uchikawa, S.: Toyota production system and Kanban system materialization of just-in-time and respect-for-human system. Int. J. Prod. Res. **15**(6), 553–564 (1977)
16. Womack, J.P., Jones, D.T., Roos, D.: The Machine that Changed the World: The Story of Lean Production. Rawson Associates, New York (1990)
17. Ljungblom, M., Lennerfors, T.: The Lean principle respect for people as respect for craftsmanship. Int. J. Lean Six Sigma **12**(6), 1209–1230 (2021)
18. Adler, P.S., Cole, R.E.: Designed for learning: a tale of two auto plants. Sloan Manag. Rev. **34**(3), 85–94 (1993)
19. Spear, S.J.: Learning to lead at Toyota. Harv. Bus. Rev. **82**(5), 78–91 (2004)
20. Besser, T.L.: Team Toyota: Transplanting the Toyota Culture to the Camry Plant in Kentucky. SUNY Press, Albany (1996)