

Lean Extremes
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With a focus on *lean extremes*, my mind races to the extremes of zero and infinity, which bear strong resemblance to the goals for the *elimination* of variation and waste and a focus on *continuous* improvement. Such thinking in extremes reminds me of the following advice, given by my doctoral advisor when I was a graduate student in the mechanical engineering specialty field of heat transfer;

“If your boss gives you a question and only 5 minutes to answer, there are only 3 possible answers; 0, 1, and infinity. Use the 5 minutes to gather the context to choose the right answer.”

The logic behind his simple, yet invaluable, advice is more obvious to those who are quick to distinguish the differences between convection, conduction, and radiation, and have appreciation of how often 0, 1, and infinity appear as answers to heat transfer questions when looking for simplifying solutions to flow past a cylinder or over a flat plate, two of the standard categories for students of heat transfer. Upon transitioning careers from heat transfer analysis to the world of “Total Quality,” I encountered the “methods” of Genichi Taguchi, wherein the three possible answers from the “5-minute heat transfer question” appeared again, but in the form of “3 types of product or process outputs,” each focused on its own goal: zero, anything finite (such as a quarter-inch hole size), and infinity. In the specialty field of Taguchi Methods, performance goals for the output responses of products and processes must be mindfully categorized, well before the methods are applied, as “smaller-is-best,” “nominal-is-best,” or “larger-is-best,” which aligns well with the goals of 0, 1, and infinity.”

Consider a few examples of how extremism is often anti-systemic; that is, the ambition to achieve either zero or an infinite amount of something has consequences that can easily be more expensive to the system than the local savings achieved by the well-intended ambition to reduce cost, eliminate variation, or eliminate waste. If one moves from the elimination of waste to eradicating fat (a common synonym for waste), for example, what would happen to the world’s population of whales? Or, do whales need fat for a reason, which moves the focus for a heat transfer student to a need for insulation; therefore the need for some fat. Likewise, a focus on reducing the expense of a surgeon or an operation might have a devastating effect on post-surgical life. In this regard, the focus would move from “zero” to how much fat is needed, or how much should one spend for an operation, in appreciation of a system that includes the future of both whales and the patient. Much the same could be said for home improvement, wherein prudent homeowners do not attempt to improve their home forever; to infinity. Rather, they invest with the prediction of a greater return and surely know to stop when the home reaches a peak market value.

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The extremism of zero and infinity as goals for the performance of products and processes extends from the focus of the elimination of waste and variation and continuous improvement to include a desire for zero inventory, zero cycle time, zero cost, and zero delivery time. I refer to this well intentioned, bravado-like focus on “faster-better-cheaper” as “Management by Extremes.” What’s missing from this “big-hairy-audacious” goal setting, known by many as BHAGs, is what the articles in this issue of LMJ reveal; context does matter, and it takes far more than 5 minutes to begin to reveal the context in the context of many of the challenges we face on a daily basis. This issue of the LMJ provides invaluable reminders of the ever present need for contextual awareness, be it the context of a focus on the future and not only the present, as in Mical De Boer’s article on the services of De Boer Structures, the need to balance resources, as in Chris Duffy’s article on “killing service excellence,” or the need to consider union workers in Gregor Gall’s article on mismanaged lean programmes. The time to move one’s thinking beyond “Management by Extremes” is now.