My Day with Stanley Reiter at Fairfield Manufacturing

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Feb 18, 2015

I spent the 1982-83 academic year in the MEDS department, on leave from Stanford. Sometime during the fall quarter, my wife and I attended a dinner party at the home of a MEDS colleague (I cannot remember which one), where I met Stan Reiter for the first time; I knew of his role in the founding of MEDS from conversations with John Roberts, who had moved from Northwestern to Stanford a year or two earlier.

During the dinner party I told Stan about my then-recent entry into the teaching of Operations Management, and my intention to focus on that area in the future. That prompted him to tell me about his experience developing and implementing a job shop management system at Fairfield Manufacturing, working in collaboration with William Holstein, who I believe was a Purdue grad student at the time of the project. Within a day or two, a plan was hatched for the two of us to visit the company, and one phone call from Stan was sufficient to fix a date.

From my perspective, the day had three distinct parts: (1) a 2-3 hour conversation as we drove from Evanston to Lafayette, during which Stan focused mainly on the circumstances that led to his project at Fairfield; (2) a factory tour and lunch meeting at the company, during which the president made a presentation with charts that showed long-lived productivity gains from implementation of the Reiter-Holstein system; and (3) another 2-3 hour conversation on the way back, during which Stan talked about the aftermath of the implementation, including an unsuccessful attempt to repeat the experience at another company.

Fairfield Manufacturing had been called Fairfield Gear when Stan began his project there, and indeed, all it made were gear wheels – in a staggering array of styles and sizes, ranging from delicate parts going into fist-sized mechanical assemblies, to gears four feet in diameter used in construction cranes. We were visiting 20 years after system development had begun, and our lunch meeting included three Fairfield employees who had worked closely with Stan on the project, including the president, who had been one of its chief programmers in his mid-twenties.

Both the president's charts and the conversation made it clear that implementation of "the system" (that's what everyone called it) was a watershed event in the history of Fairfield Gear: revenue per machine hour had risen by something like 10% within a few months of implementation, with other performance measures similarly improved, and those productivity gains were sustained over the 4-5 subsequent years shown on the charts. Stan was treated like a representative of a vanished race that had left behind marvelous works that could be used but not really understood by those who followed. To overstate things only slightly, the atmosphere in our conference room was one of awed reverence, and Stan was perfectly comfortable in that atmosphere.

On the way home he related, without any obvious sadness or disappointment, that after a few years there had been changes in the company's management, and various incremental changes were made to the system, each seemingly small. Those alterations each made performance a little bit worse, at least according to Stan, which he ascribed to a lack of coordination – successive changes were not coordinated with one another, or with other aspects of the system that had *not* been altered. His observation of that slow degradation from afar, combined with his inability to repeat the Fairfield experience elsewhere, led Stan to conclude that a crucial ingredient in the Fairfield success had been his client, the company president who had commissioned his work in the first place.

While the press clippings emphasized the magic of “modern computers,” and a lot of company employees spoke in the same terms, the thing that stood out in retrospect was that the man running the show at Fairfield actually *wanted* a system of due dates, release dates, machine schedules, etc., that was logical and dispassionate, insulated from manipulation by customers, sales reps, or company executives. In contrast, when Stan sought to reproduce the experience later, he had a client (a high ranking executive who did not own the company) who was all for “efficiency” in principle, but insisted that he still have the ability to exercise personal discretion at any level of the system management hierarchy, from what orders were accepted at what prices to how jobs were prioritized at individual machine groups.

At least in my recollection, Stan attributed that posture mostly to the pleasure that his client derived from exercising personal political power, rather than to belief that he was reducing cost or increasing revenue through his interventions. That analysis has come back into my mind dozens of times over the intervening years as I’ve listened to seminars and lunchroom conversations about management incentives.