

Learning the lessons of systems thinking: Exploring the gap between Thinking and Leadership.

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Note: This is an earlier, unedited version of a piece composed for a blog article, before its acceptance to the Integral Leadership Review. The first two paragraphs are significantly modified for the publication, but are left intact for this personal version of the article.

Weatherhead School of Management professor Fred Collopy penned a provocative piece in June 2009's Fast Company blog, an article that deserves a wider hearing and response. The fragmentation of venues for committed discourse has a fascinating paradox of too many places (blogs) chasing too few great ideas (original thinking, not copied and pasted into blogs). Ideas as hot as Fred's may not be ready for prime time scholarly journals, yet somehow the blog venue seems a little less than perfect for the impact of the piece. (Located at: <http://www.fastcompany.com/blog/fred-collopy/manage-designing/lessons-learned-why-failure-systems-thinking-should-inform-future>)

It is worth describing the postmodern chain of discourse that followed the blog's publication. Consider that this piece started as my informal response on the Transforming Transformation email discussion list, in response to a blog post that was circulated as a link on that list. Several of the regulars on the list responded to Fred's piece at the Fast Company blog. I was invited to formalize the post as a kind of scholarly letter. Twitter was involved at several points as well (and Twitter posts have led to other articles.) While we may be creating multiple channels of fragmented, emergent discourse, informed people are engaging in lively and timely communications. It may seem a bit like a *Daily Show* of scholarship, slightly off-handed, with serious ideas often unseriously presented, almost improvised. But we are finding each other and sharing ideas and learning in ways unavailable or inconsiderable even two years ago.

Dr. Collopy's article claims systems theory failed in its promise to enlarge the scope and practice of management, since it was not seriously taken up into management practice or what we might call the leadership imagination. He suggests this history poses learnable lessons for Design Thinking, a significant current trend in management theory and method, which appears to be taking up the coattails of systems thinking. A fundamental lesson from Collopy's article might be to adopt methodological toolkits into practice and leave much of the theory for scholars. I agree that this might have a chance of success, but I suggest this for different reasons than does Fred.

I don't believe systems thinking was a failure because it was not wholly adopted. The history of what we call "management fads" is constructed of half-baked practices that often butchered the original "theoretical" intent of the fad. Consider for example Hammer and Champy's original intent for business process reengineering, for enterprise transformation, was both more rigorous and humane than the consulting implementations that followed and destroyed its value as a management tool. I believe systems theory also set inappropriate and overly high expectations for itself and its adopters. It would have been an honest failure had it been authentically used in action and found useless. But systems

thinking was rarely used in “lived leadership experience,” certainly less so than BPR, so I would not make this claim in earnest. I would even ask, what theoretically-based systems of thought are really ever used in leadership?

What models do we purport or promote that an executive will be able to learn in one day and then retain in memory and experience for useful application? Few indeed; and we might count business reengineering as one of those few, accounting for its initial widespread adoption. Systems theory, and even the spectra of published academic theories on strategy, organizational behavior, marketing, product innovation, and communications are largely ignored in practice. Leaders may work with the salient principles of such systems theories, such as Ross Ashby’s principle of requisite variety as embodied in “understand the perspectives of all stakeholders.” When these principles are necessary in the course of decisionmaking, they will not only be adopted but continually reinvented and optimized.

As a design research consultant with years of experience in organizational integration, I’ve seen gradual adoption of core design concepts such as total customer experience, user-centricity, collaborative team design, and ethnographic field research to inform early innovation. I do not count on leadership to advocate design approaches independently, if for no other reason than it would violate the core principle of collaboration. But I would expect them instead to recognize their applicability when presented with options.

Like many scholars, I am an unrepentant theory builder that likes to think my ideas and practices make a difference. But in practice, the more theoretically specified, the less difference or impact I can make. As a working theoretician (someone who constructs working theories from an informed stance), this is disappointing but very real. I have noticed that Professor Ackoff or I can make our own theories work in practice, at least well enough to demonstrate their application. But can we expect management practitioners to follow our guidance, just from our writing management books and giving workshops?

A Belief System without the Beliefs

Dr. Collopy suggests we learn from history to prevent our current embrace of Design Thinking from suffering the same fate as systems thinking. He makes a case that classical systems thinking, as a management framework, failed in part due to problems with its significant cognitive overhead. As systems thinking has developed over the decades, it has accrued more concepts and enveloped more territory. It is not enough for any systems method to just present one good practice anymore.

This tendency to burden a good thing leads to problems with what I call belief system adoption. Systems theorists were formidable authors, and the “thinking” frameworks they engendered were meant to be taken wholly, not in a la carte bites. Methods were not to be separated from integrated principles, or results could not be guaranteed. Consider this from the leaders perspective. Thinking frameworks, ranging from Beer’s Viable Systems Model, to Checkland’s Soft Systems Methodology, to Senge’s Fifth Discipline, failed to be taken up in management practice because *discipleship*, not just discipline, was asked of leaders. And leaders, not being good disciples, failed to take even the good ideas into practice

because the frameworks required people to accept an integrated whole system, a set of tenets, that were untenable *as frameworks* back in the arenas of practice.

Why then were some practices much more successfully adopted than others? Russ Ackoff shares many stories of successful applications, but then his approaches (for example, Idealized Design) reformulate deep theory into simple working language and structures for action. He has participated in the front lines of organizational decision making, unlike other systems theorists who step in and out of the arena of committed action. And Ackoff's approach is identified as design for a reason. His school of systems thinking is explicitly framed as *designing*, and I consider it the progenitor of today's design thinking. Finally, Professor Ackoff also demonstrates the capability to think independently —to not be attached to the belief systems he himself may have constructed. I will add that systems or design 'thinking' must be dynamic processes, not just frameworks of ideas, to be considered thinking. We must free it up from the belief systems accrued from its theoretical development and (often limited) validation.

Many systems thinkers explicitly oriented their theories to designing, at least starting with Newell, Simon and Shaw's (1958) *The processes of creative thinking*. Ackoff's basic principles - such as starting from an ideal envisioned outcome and generate scenarios for reaching that vision - fit many of the practices espoused by firms such as IDEO, Jump, and Redesign Research. We may have dressed up the methodologies and supported them with design research, but design thinking is indebted more to systems thinkers than to traditional (industrial) designers. (Which may explain why design thinking is, unfortunately, rarely presented with the "designerly" richness it deserves).

I would push the argument one step further. It appears Dr. Collopy advocates that we avoid the *belief systems* associated with systems thinking and adopt the toolkits of design that emerged from its sister meta-theory, design thinking. These methods include problem framing, divergent idea generation, visual thinking and expression, human-centered scenario creation, and so on. The argument follows that, if we forego attachment to the theoretical frameworks and build a rich arsenal of methods and tools, we might then test their applicability in practice to the many different problem areas we face. We can crowd-source their R&D, and inductively develop a more resilient working framework based on empirical observation of application.

Why, When, and How?

Simply put, very few theoretical systems have ever been usefully adopted by business leaders. The best 'business' theories sit on the shelf, as do systems theory or other theoretical constructions based on abstract reasoning. I believe the root cause of management fads is the propensity of working managers to convert a thoughtfully developed process to an instrumental method, in search of its most rapid (if not effective) deployment as a competitive weapon. Business process reengineering, knowledge management, systems thinking ... should we continue with design thinking? All of these systems have a strong theoretical basis and associated analytical processes. All of them were converted to tools, for effective and rapid adoption and deployment. The tools themselves led to fads. The hard work of systemic and analytical thinking was stripped away from the business-friendly toolkit, leaving behind a

beguiling and even actionable simplification. No wonder the tools themselves failed to deliver on the original promise of the system of thinking.

What leaders will (really) attend a 5-day workshop in the first place? And then work from that knowledge? The kind of tacit knowledge that leads to innovation has to be earned in practice and decision-making, not from theoretical models, regardless of elegance. The models that are used must be simple and retainable.

According to naturalistic cognitive research (for example, Gary Klein's research on decision making and Karl Weick's work on sensemaking) leaders engage problems in real time, not with the pace of reflective thought that enables theoretical understanding, relying on personal mix of sensemaking, acting on personal knowledge, and drawing upon repertoires successful in similar situations. For new sensemaking skills to adhere within the dynamic lived leadership experience, they must satisfy the conditions of behavioral and real-world decision practices of everyday leaders. Some design thinking practices may fulfill those conditions of satisfaction.

Can Design Thinking Make a Difference?

Design thinking is different, even if only because the *actions* of designing that we draw from are tangible ways of knowing and working. Designing is an action-first methodology (dialogue, prototyping) that people in business professions can witness and experience. Systems thinking is more abstract in action and representations. This is a bigger difference than we might believe. But it is akin to the difference between (abstract) belief and (embodied) knowing.

Executives project their working mental models quickly into a simulated future, based on successful repertoires of experience. To many, this feels like "gut" or intuition, but it has a cognitive bias and its basis is heavily dependent on experience. Systems thinking may not map to an executive's personal experience, even if it does map to an intellectual's experience. So I don't not see the systems thinking schools as having failed at all. They are schools of 'thought,' and are not ready-to-hand tools of leadership. They require a personal effort of leaders to understand, transform (to use the electrical metaphor of stepping-down voltage), and to re-create the system as one's own. This condition of use creates a formidable barrier to adoption, even if the promise of systems thinking is transformative and very attractive.

By evolving our own tools for design thinking we can customize toolkits to fit uses. We can start by constructing collaborative processes that bake theory into tangible practices of making and reflection that allow people to make sense of their options and possible futures.