

## Book Review

A review of *Chaos Theory and Higher Education: Leadership, Planning and Policy*, edited by Marc Cutright, 2001. New York, Peter Lang, 264pp. ISBN 082045110X. \$29.95 USD.

Reviewed by:

TARA J. FENWICK  
*University of Alberta*

Planning is a central issue in higher education administration in this age of performance-based accountability, severe funding cuts, vicious knowledge politics, technology-induced transformations of libraries and instruction, to say nothing of conflicting theories of planning. This collection of essays focuses chiefly on planning dilemmas in universities and colleges in Canada and the US. Written by faculty members, many of whom are practicing administrators, the collection evokes what it calls “chaos theory” in a few general terms that the authors link to issues and approaches of strategic planning. The editor Marc Cutright apparently has developed ten “propositions for a chaos theory metaphor for planning” in his doctoral thesis which, judging from the reference to these in other chapters, were likely circulated to the other authors. Cutright’s opening chapter purports to set forth the foundational concepts of chaos theory: within seeming randomness of chaotic systems, where continuous feedback and extreme sensitivity to influx can cause small factors to multiply over time (“the butterfly effect”), patterns occur due to the drawing power of attractors. These give chaotic systems the quality of self-organization, and self-similar structures called “fractals” are a characteristic of chaotic systems. That’s about the extent of the theoretical contribution. Perhaps the linguistic sleight-of-hand in calling this a chaos theory *metaphor* is intended to step aside from fine-combed analysis of these concepts in considering academic bureaucracies. Cutright avoids the hard questions we might expect in a book calling itself “chaos theory

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and higher education”: how notions of self-organization and co-emergence can ever be coherently reconciled with notions of strategic planning; how to theorize power relations within chaos/complexity, particularly on campuses where race and gender politics are rife and where economic considerations have reconfigured discourses of learning and success; and how to understand the multiple contesting ‘chaotic’ systems burbling within any higher education institution without reducing them to caricatures.

The chapter authors address various topics within the general linkage of a ‘chaos theory metaphor’ to planning in higher education: strategy, leadership, governance, and a rather baffling inclusion discussing R.G. Collingwood, a 1930’s historian. Chapters vary in quality. With some exceptions (Barnetson’s chapter on performance indicators, Kershaw and Safford on technology, and a case study by Perkins et al.), there is little here to advance understandings of either chaos theory or strategic planning theory, a body of sophisticated literature in its own right. References to chaos theory tend to evoke general ideas about nonlinearity, interdependence, diversity and feedback, often relying on secondary sources such as other social scientists or educationists applying generic ‘chaos’ ideas to human behavior. No recognition of different families of chaos theory is apparent. Little analysis is offered of nuanced patterns and relations that emerge in different aspects and contexts of planning. Overall the light treading of theory might indicate an intended audience of practicing administrators in universities and colleges. If so, one would have expected more rigorous treatment of the gritty and often violent complexities of higher education administration, with or without solid practical recommendations. Prescription is prevalent here, but rarely rises above currently popular leadership ideals of flexibility, communication, vision, reflection and the like. Some chapters remain at broad levels of description and advice relayed in wordy explanations that would likely frustrate busy administrators.

Following Cutright’s introductory chapter describing chaos theory, Barnett provides a context-setting chapter, containing lists of the different ways a university is not only “complex” (which he defines as “an overload of entities, forces or items of data such that they cannot be assimilated” p. 22) but also “supercomplex” (which “refers to conceptual and framework relationships” p. 23). The discussion does not venture much beyond recognizing the fact of multiplicity (in knowledges, values, interests, goals, stakeholders, etc.) before jumping to a list of principles for management. In these Barnett’s main concern appears to be avoiding a relativist view of a university striving to be things to all people, so he advocates a sort of balance between tolerance of diversity and “enlightenment” through “critical encounters.” All of this boils down to advising continuous reflective review and lots of communication.

Swenk’s chapter follows, presenting a conventional planning model “informed” by chaos theory. Using an awkward third-person presentation pro-

ducing constructions like “the author recalls...” and “this researcher defined...”, Swenk repeats a description of four ‘chaos principles’ presented in Cutright’s introduction, then applies these to each step of her model (e.g., develop a planning culture, develop a strategic database, determine goals, etc.). The result is a strangely incoherent meld from which Swenk extracts planning recommendations for managers: stay flexible, encourage diversity, tolerate unpredictability, and have a contingency plan. While sound, if simple, one wonders why the long route through so-called chaos theory was necessary to arrive at such commonplaces.

Next, Cutright presents his ten propositions “derived from a coincident consideration of both chaos theory and best practices in strategic planning” in his doctoral research. While well-written – direct, clear and personable, in contrast to the preceding chapter – Cutright is never self-reflexive about the position of the planner(s) and plans vis a vis the organization. He avoids interrupting a fundamental view of an institutional system whose culture and dynamics are managed by an elite group, and his only real concession to notions of fluidity and co-emergence is to involve many voices and prepare for uncertainty. The ‘chaos’ view is portrayed as a superior planning practice rather than a lens to analyse any practice within an organization. As such, the propositions are prescriptive, yielding what in the end are well-trod notions (e.g. “The ideal outcome of planning is planning, not a plan” p. 61, and “Planning begins with a distillation of the institution’s key values and purposes” p. 62).

Perkins and others follow with an engaging case study of a community college in the southern US. While organized according to Cutright’s 10 propositions, using terms like ‘chaotic systems’ and ‘leaders in chaos’ liberally, the connection to chaos theory is more gestural than substantive. Nonetheless this is a good story with concrete examples that begin to illustrate the gritty contradictions involved in planning processes ‘on the ground’ that are missing from other chapters. Aper’s next chapter describing higher education planning at a state level also shows the conflicts of chaos-inspired ideas with traditional frames of academic accountability, managerial emphasis and explicit linking of performance indicators to budget processes. The chapter’s point becomes somewhat lost in excessive historic detail of policy reports, but presents a sobering challenge to the romantic prescriptions of other authors: flexibility, participation, and other ‘chaos’-inspired practices are shut down by budget cuts. He ends with the ambivalent recommendation of allotting greater power to central agencies while developing decentralized networks.

One of the best chapters is Barnetson’s critical discussion of performance indicators as conceptual technologies, “explicitly political tools designed to shape perception (and ultimately behavior)” p. 150. His analysis of the difference between how rules and attractors affect a system yields useful insights about the effects of performance indicators as well as system behav-

iors in institutions, even if his practical implications for planners are not terribly clear. Kershaw and Safford's chapter on the impacts of technology, while borrowing 'chaos' concepts only lightly, also contains a helpful analysis of differential change effects on higher education systems using punctuated equilibrium theory. They extend this to suggest, using examples, how planners should focus on identifying strange attractors and their different effects, then develop curriculum and student service models responsively. Mossberg's lengthy final chapter addresses leadership. While somewhat over the top (with subtitles like "Chaos, a beautiful global vision for leaders of transition" p. 210) and reminiscent of inspirational leadership books in tone, her personal reflections on what it means to recognize diversity and see hope in conflict lend a depth to the theoretical lightness of former chapters discussing these concepts.

The problem here is bigger than this book, which falls into a certain genre of management/leadership literature that appropriates and renders in simplistic romantic terms notions of self-similarity, co-emergence, self-organization and nonlinearity. These are posed as the positive alternative to 'traditional' notions of linearity, hierarchy, rigidity, regulation and detail. More detailed analysis is bracketed out, along with the writers' positionality, with a leap to prescription. Superior (managerial) practices supposedly aligned with 'chaos' thinking echo the soft regulation of new management theory: be flexible, values-based, person-centered, participatory, open, permeable and inclusive – without interrupting fundamental social structures and economic discourses. Issues of power, inequities, politics, subjectivities, language, and the micro-complexities of everyday relations are thus neutralized, or conveniently stripped from the representation of organizations and practice. And increasingly, as in this book, such sources are quoting each other to construct an entire literature that has not critically engaged with its own foundations or methods of application, let alone with primary sources debating complexity or chaos theories.

We should expect more in education resources applying complexity theory. We should expect such books to conduct substantive and self-reflexive discussion of the theoretical constructs they choose to take up, positioned clearly within the larger family of complexity/chaos theories. Related theoretical debates should be engaged (self-organization, for example, is a highly contested concept!), and critical questions addressed about presence and representation, positionality, relations, change, temporality – and the limits of complexity models derived from physical, biological and computer sciences in educational application. Pronouncements and prescriptions need to be grounded in more detailed study of microdynamics, in both empirical and theoretical domains. In other words we need more rigorous analysis and less generic advice.