

Four-word: Against the Grain

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Mary Huber's provocative monograph, *Balancing Acts*, is a set of case studies of four individual scholars who had to make serious career choices. A humanist, a psychologist, a mechanical engineer, and a chemist, the choice of how they would make a difference in their respective fields was often not easy. They were confronted with the compelling and often competing goals of engaging in mainstream forms of disciplinary inquiry or giving primacy to inquiry responsive to their roles as educators in those disciplines. *Balancing Acts* explores the essence of these dilemmas, the challenge of trading off competing goods in the service of higher ends. Indeed, this book can be read as an account of four academic journeys in which values, choices, actions and their consequences are in continuing interaction and competition. How does one represent this kind of intersection of values, choices and their outcomes? For me, the essential tool is the 2×2 or "four-fold table." If that seems like a puzzling observation, permit me to digress a bit.

Four-fold tables are powerful ways of representing the intersection among alternative actions (often moral or strategic choices) on the one hand, the possible states of nature on the other hand, and the likely consequences of those interactions. Thus, imagine a situation where a driver is approaching a railroad crossing without signal warnings. He can either stop and look in both directions or he can proceed across without stopping. The state of the world also has two possibilities: there is either a train coming or there is not. The cells of the four-fold table now summarize the possibilities. If he stops and there is indeed a train coming, he avoids injury and keeps himself safe. If he stops and there is no train coming, he has experienced a slight delay, and remains safe. If he fails to stop and there is no train nearby, he remains safe. But if he fails to stop and a train

is coming, he is likely to be badly injured or killed. Given the four alternatives, and the very low cost of stopping briefly to check for trains, the best decision is clear.

DECISION: Stopping at Railroad Crossing

		DRIVER ACTION	
		Stop	Proceed
TRAIN CONDITION	Not Coming	safe	safe
	Coming	safe	death or injury

Now, however, imagine that the driver is trying to escape from an assassin who is intent on murdering him. Suddenly, the contingencies change rather dramatically. Now stopping has a serious cost associated with it as well. The decisions are much less clear.

DECISION: Stopping at Railroad Crossing While Escaping from Assassin

		DRIVER ACTION	
		Stop	Proceed
TRAIN CONDITION	Not Coming	death or injury	safe
	Coming	death or injury	death or injury

There are many famous examples of the uses of four-fold tables as ways of representing human choices in the world. Three of my favorites are Pascal’s Gamble, Bacon’s Skeptic, and Pasteur’s Quadrant.

Pascal was encountered by a friend coming out of church. Knowing that Pascal was a nonbeliever, the friend chided Pascal for his hypocrisy. Pascal replied that the decision was quite straightforward. There were two possibilities: God exists, or God does not exist. And he had two actions he could take: Go to church or stay away from church. The intersection yields a four-fold set of possibilities. If there is a God, and he goes to church, all is well. If there is no God, and he stays away, the consequences are benign. Similarly, if there is no God and he attends church, he has wasted a few hours each Sunday and holy day, but is merely inconvenienced. But if there is a God and he fails to act with reverence, the consequences could be unfortunate for him for all eternity. Hence, “Pascal’s Gamble” is to attend church.

Bacon’s Skepticism is also related to religion, but leads to doubt rather than acts of faith. In his discourse on “the idols of the mind,” Bacon describes a visitor to a church who is shown a fresco depicting those fortunate souls who were shipwrecked, and when drowning prayed to be

saved, and indeed were rescued. Bacon’s question was, Where are the frescoes showing those who prayed under the same conditions and were not saved? Once again, we have a four-fold table, in which the cells represent those who pray and are saved, those who do not pray and drown, those who do not pray and are saved, and those who pray but nevertheless drown. The skeptic suspects that most shipwrecked souls drown whether or not they pray, and that the painter of the fresco selects only from the “off-diagonal” cell a set of cases that are distinctly nonrepresentative. Bacon’s table is a cautionary tale for us. Are the four scholars who are the subjects of Mary Huber’s careful analysis all residents of the same cell as those who prayed and were rescued from drowning? Are they, thus, potentially misleading examples, representing a small but unlikely set of exceptions to a quite different general rule?

Pasteur’s quadrant was Donald Stokes’ (1997) representation of the choices of conducting basic or applied research and the consequences of outcomes that had some practical value. He argued that Pasteur’s cell was the one in which basic questions were asked in the context of pursuing applied ends. In that situation, the scholar simultaneously pursues the ends of both knowledge and application, and when things go well she attains a modicum of each.

PASTEUR’S QUADRANT: Research is inspired by:

		CONSIDERATIONS OF USE?	
		No	Yes
QUEST FOR FUNDAMENTAL UNDERSTANDING?	Yes	Pure basic research (Bohr)	Use-inspired basic research (Pasteur)
	No		Pure applied research (Edison)

So, rather than serving as potentially misleading and nonrepresentative members of an odd cell, are the four cases harbingers of “Carnegie’s Quadrant,” of scholarship that achieves both disciplinary and pedagogical virtue?

By this time in the essay, my readers will be quite legitimately asking themselves how all this is relevant to the foreword to this book on the work of university scholars who opted to make questions of teaching and learning occupy the heart of their scholarly agendas. Good question. I believe that Mary Huber’s case studies can be illuminated by means of a four-fold table. The underlying logic of this book is that there are two kinds of scholars in the world of higher education, those who behave as most of their disciplinary colleagues expect them to, and those who elect to go against the grain.

Thus, one might say that there are four kinds of scholars. There are those who do what is expected of them and succeed thereby. There are also those who do the expected, but nevertheless are not deemed successful. Then there are those who do not do what is expected and, not surprisingly, fail. Finally, and most interesting, I believe, are those who do not behave as their disciplinary community expects them to behave, yet succeed nevertheless—as illustrated in the next four-fold table, for which I adapt the terms “pathfinders,” and “pathfollowers” from Patricia Gumpert’s path-breaking work (2002).

CARNEGIE QUADRANT: Scholarship

		CONFORMS TO DISCIPLINARY CONVENTION?	
		Yes	No
LEADS TO ACADEMIC ADVANCEMENT?	Yes	Successful Pathfollowers	Successful Pathfinders (Carnegie)
	No	Unsuccessful Pathfollowers	Unsuccessful Pathfinders

This book is about the fourth category or cell in the four-fold table. Dan Bernstein, Brian Coppola, Sheri Sheppard, and Randy Bass each elected to violate the extant norms of their academic disciplines and devote themselves to the scholarship of teaching and learning within psychology, chemistry, mechanical engineering, and English, respectively. Nevertheless, they succeeded in the academic world at public and private institutions of higher education of the highest level—Nebraska (and later, Kansas), Michigan, Stanford, and Georgetown.

What can be learned from studying Pascal’s Gamble, Bacon’s Skepticism, Pasteur’s Quadrant, or the Carnegie Quadrant? What is the value of carefully investigating the “off-diagonal” cell? Shall we approach the work of our four case-study scholars as equivalents of Pasteur’s Quadrant, as evidence that one can (and should) strive to make contributions to both a discipline and its teaching? Is the lesson of this book that we need to create a vision of the possible, an academic world in which the Carnegie Quadrant is not so underpopulated? Or shall we view the account through the lenses of Bacon’s skeptic, asking for another, much longer book, about those who opt for the scholarship of teaching and learning and are rewarded with the academic equivalent of drowning? And is there an equivalent of Pascal’s Gamble (shall we call it Andrew’s Bet?) wherein, like most of Huber’s cases, it remains most prudent to conduct just enough traditional research in one’s discipline to retain a modicum of conven-

tional legitimacy, and then strive for distinctive excellence in the scholarship of teaching?

We learn from Huber's studies that we can nurture a vision of the possible in which serious scholars in their disciplines make fundamental contributions to the health and development of those fields by taking the path not normally taken, the off-diagonal cell of the scholarship of teaching and learning in their disciplines. But we should not kid ourselves. In order to succeed with this strategy in our era, it is probably necessary to be not just very good but distinctively excellent in one's unconventional (in this case, scholarship of teaching) inquiries and career. While being "good enough" may be sufficient for many engaged in traditional research in their discipline, it is probably not going to be sufficient for work in education.

In our family delicatessen while growing up, I learned a lesson from my immigrant mother that is almost as valuable as the four-fold table. "When slicing a brisket" she explained, "always cut against the grain." The advice generalizes admirably for the slicing of all meats, I later learned. And as Mary Huber demonstrates in this provocative monograph, it's not bad advice for scholars of courage and talent. Cut against the grain. You take a serious risk, but your impact may be profound.

Bobby Kennedy once observed, "There are those who look at things the way they are and ask, Why? . . . I dream of things that never were and ask, Why not?" Indeed, the world need not remain as it presents itself to us. There may in fact be limits to the uses of four-fold tables with their either-or logic and clearly bounded cells. The decision need not remain forever between the options of engaging exclusively in traditional forms of inquiry and in the scholarship of teaching and learning in one's discipline. It is within our power as an academic community to choose a new route, a route in which the two roads no longer diverge, but converge into a powerful new conception of the scholarly career, in which the scholarships of the discipline, of teaching and learning, and of service to humanity achieve parity and mutual enhancement.

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