Decision Logic in Evidence-Based Management: Can Logical Models From Other Disciplines Improve Evidence-Based Human Resource Decisions?

John Boudreau, University of Southern California

Abstract

The “mental models” used in organizations often reflect disciplines such as Finance, Marketing or Engineering. Such models can overlook or misinterpret evidence related to human capital, producing poor human resource and organizational decisions. Improved evidence-based human resource decisions may result from “retooling” HR issues using logic from mental models in other management disciplines. HR researchers and practitioners can tap the power of these well-accepted logic frameworks to “retool” evidence about human resource management.

Keywords: Mental model
Logic model
Logic framework
Human capital
Evidence-based human resource management
Decisions
In October, 2008, I was a speaker at an event that also included Jack Welch, the former CEO of GE. In the interview, Welch was asked about the growing evidence of an impending downturn, and he acknowledged that he believed the downturn was likely to be more severe than most current leaders had ever encountered. Asked what his most important advice to leaders would be, he chose a human capital issue. Welch observed that companies would have to make hard choices, and that their top performers were not going to meet the performance targets that would normally have triggered rewards such as bonuses, incentives and stock option awards. He admonished leaders to put aside a “bucket of money,” to be ready to show the most vital employees how much they are valued, “because your competitors will be at your doorstep waiting for them to become disillusioned and leave you.” This remarkable quote vividly shows how business leaders place a priority on talent. Later that day, I was working with a group of top HR leaders who had heard Welch’s remarks. I asked, “In your organizations, can your HR and unit leaders reliably and logically decide which of your employees are vital, and how big that bucket of money will need to be, to retain the vital talent you need?” Only a few hands went up.

The HR leaders at the meeting were members of fine organizations with world-class HR systems to retain and reward their vital talent. However, even with those systems, the HR leaders could not be sure that their counterparts -- organization leaders in other functions or business units -- possessed mental
models that would logically and reliably direct the retention resources to where they would be most vital and most effective.

In contrast, these HR leaders were very certain that their counterparts would use logical and similar models to know where to invest (and cut) scarce resources in technology, manufacturing and marketing. They admitted that these well-accepted models were not expected to produce perfect decisions, nor were their disciplines (finance, marketing, operations management, etc.) blessed with perfect measures and evidence. Yet, leaders and managers had a consistent and logical way of thinking through difficult questions about these other resources, using principles such as net present value, production optimization and market segmentation. That kind of consistency and widespread accountability for clear and evidence-based thinking was not as typical when it came to human capital.

These HR leaders were among the best in their field, and had built and led HR functions that were respected, influential and award-winning. Yet, they recognized the striking contrast between how their leaders approached tough decisions regarding people, versus other resources. They and their leaders knew these would be vital decisions, such as where to cut talent and where to grow it, how to optimize investments in a reduced array of incentives, and whether to preserve investments in talent acquisition programs to be prepared for the upturn. Of course, the HR teams and their counterparts would eventually make those decisions, but apparently with frameworks that were far less consistent, logical and effective, compared with decisions about money, customers and technology.
Yet, the questions about how to optimize talent acquisition investments seem remarkably similar to questions about how to optimize acquisition investments for raw materials or assembly components. Questions about where best to apply a limited array of incentives seem similar to questions about where to apply a limited array of financial resources to investment opportunities. Questions about where to grow and where to cut talent seem remarkably similar to questions about where to grow market share and where to allow it to decline.

HR leaders and researchers spend a lot of time trying to learn finance, marketing and other business disciplines, to understand the logical that defines how business leaders think. Yet, HR-related evidence, measurement, information and reporting systems too often reflect an perspective that is quite foreign to non-HR managers and leaders, even when those HR systems are remarkably sophisticated and data-rich. In their zeal to produce ever more sophisticated HR measures, analytics and scorecards, even the most advanced HR leaders often miss a fundamental point: Whatever the outcome of all the number-crunching, it will do little good if it’s not used and understood by the key decision makers, and those decision makers are usually not well-versed in HR models, data or evidence! This chapter proposes that evidence-based HR management will be enhanced by greater focus on the “mental models” that are used to make decisions about human capital. More important, it suggests that there is a largely untapped opportunity to improve those mental models, by “retooling” traditional HR logic and evidence within the frameworks of well-accepted logical models from other management disciplines.
The chapter first defines the term “mental models,” drawing upon a long-standing research stream from organization behavior, marketing and systems dynamics. Then, it defines the concept of “retooling” HR as the process of reframing HR evidence and decisions using the logical frameworks that leaders already trust and accept -- frameworks that are already widely used to make decisions and amass evidence about resources other than human capital. The concept of retooling integrates with vital elements of evidence-based decision frameworks discussed in other chapters in this volume. The chapter describes why mental models matter, describing the evidence that suggests that mental models have significant effects in directing decision makers’ attention, defining what evidence is relevant, and how evidence is amassed, analyzed and interpreted.

Evidence suggests that leaders know that they are not as adept at human capital decisions compared to more traditional or tangible resources, and evidence also suggests that when leaders have a stronger grasp of principles of human behavior, the strategic role of HR is stronger as well. Indeed, even the definition of a decision itself is affected by mental models, which highlights why evidence-based HR decisions may benefit from reframing within more accepted and often more sophisticated management frameworks.

Next, the chapter considers evidence-based HR decisions as a special case of teamwork, with HR leaders and researchers teaming up to work with leaders and researchers in other management disciplines. The research on shared mental models (SMM’s) among team members provides a well-developed base of theory
and measurement methods for mapping the degree to which leaders in different disciplines develop a common perspective on HR-related evidence and decisions.

Because the question of HR measurement figures so prominently in how leaders approach evidence-based HR decisions, the chapter describes how the “retooling” approach suggests a new perspective on HR measures, and the importance of tapping the right mental models and logic frameworks. The chapter also describes how retooling suggests a different approach to educating decision makers outside the profession, and offers ideas for starting the retooling process in actual organizations. It concludes with implications for research, business education and practice.

**Mental Models of Managers**

The “mental model” concept appears in many disciplines, including systems dynamics, education, psychology, etc. A review of the definitions used in the literature in systems dynamics produced this definition: “A mental model of a dynamic system is a relatively enduring and accessible, but limited, internal conceptual representation of an external system (historical, existing or projected) whose structure is analogous to the perceived structure of the system” (Doyle & Ford, 1998; 1999).

A more general definition can be found on the web (Anwers.com, 2011): “A mental model is an explanation of someone's thought process about how something works in the real world. It is a representation of the surrounding world, the relationships between its various parts and a person's intuitive perception about their own acts and their consequences. Our mental models help shape our
behavior and define our approach to solving problems (akin to a personal algorithm) and carrying out tasks.” This definition arises from mental model theory that suggests reasoning depends not on objective or logical forms, but on mental models (Johnson-Laird, 1983).

Mental models clearly include schemas that define the structure of perceptions, as well as relationships including cause and effect, and the ways that evidence and data are incorporated to explain and enhance the schema. The insight that reasoning (and thus decision making) depends ultimately on subjective mental models rather than objective logical forms will be fundamental to the dilemmas posed in the introduction. Although a great deal of attention in evidence-based management is directed toward developing and amassing more valid and logical relationships, a fruitful avenue for advancing the use of evidence may be to better understand the audience’s mental models regarding that evidence. The mental models of HR leaders, researchers and practitioners may be very different from the mental models of their constituents. Non-HR leaders’ experience and training is often grounded in logical frameworks and tools from disciplines outside the domain of human resources, so mental model theory suggests it may be useful to draw upon those other disciplinary frameworks to improve the quality and usefulness of mental models regarding HR decisions.

In the evidence-based management process, mental models can both enhance and hinder the uptake of useful evidence for better decisions. Decision makers certainly have mental models that guide their HR decisions, but they may be less inadequate to the task because they are constructed on a less firm
foundation. The frameworks of research on human resources are less familiar to organization leaders than those for consumer behavior, operations engineering and finance. Those latter models are likely to be richer and more evidence-based if only because leaders use them more, or have been trained more deeply in them. Taking elements (e.g., schemas, relationships, evidence connections) from the richer mental models of other disciplines and retooling them to apply to human resource decisions may enhance human resource mental models and their capacity to make use of evidence.

Evidence-based management is intended to contribute to organizational and management effectiveness. Because mental models influence what evidence receives attention and how it is used, inadequate mental models generally have serious organizational consequences. The unexpected financial market meltdown of 2008 may have been caused in part by organization and regulatory decisions based upon mental models inaccurately assuming that certain extreme situations were impossible (i.e., because they had never been experienced by the key decision makers).

There are similar risks to inadequate mental models in the arena of human capital. For example, mental models that view human resources mostly as costs can lead to squandering less tangible long-term value in an effort to reduce short-term expenses. Or, mental models that presume it is possible to acquire qualified human resources very quickly and at reasonable cost (perhaps because the HR department has always delivered on this promise) can lead to lost opportunities that might come with better long-term planning and action (Boudreau, 2010).
Even when inadequate mental models about human resources are widely-shared (e.g., turnover is bad and should be reduce), their dangers may be avoided by casting them into the light of a superior mental model from another discipline. The evidence of a successful mental model transformation might be measured by observing how leaders’ insights become more sophisticated, such as when “turnover is bad and must be reduced,” is replaced with “Employee turnover has benefits and costs just like inventory turnover,” or as “staffing means filling my requisitions quickly,” becomes “Leaving employee staffing until the last moment is just like leaving decisions about adequate raw materials until the last moment.” Mental models focus organization and leader decisions, so enhancing mental models about human resources has the potential to improve that focus, and thus improve how evidence is gathered, analyzed and used.

Employee turnover is perhaps the most frequently-reported statistic about human capital. Virtually every study shows that turnover rates are calculated and reported by the vast majority of organizations. Yet, the mental models used to understand and interpret turnover rates are often rudimentary at best and misleading at worst. Most leaders, when confronted with a turnover rate, have a mental model that clearly sees the costs of replacing the departing employees, and it is often possible to calculate million-dollar savings if turnover can be reduced even a bit. Indeed, when I have posed this question to many groups of business leaders over the years, they almost always initially respond that turnover is costly, and so it should be reduced. This is logical and correct, but often not a complete analysis.
A more appropriate set of questions would ask how much it costs to reduce the turnover, whether those leaving are less qualified or motivated than those that might replace them, whether the cost of replacing the departing employees is a lot less than the cost of what it would take to keep them, etc. The turnover rate masks many relevant considerations. Decades of research have shown the importance of understanding functional and dysfunctional turnover, and to embed turnover analysis within a more complete model of the full staffing cycle. Why, then, do smart business leaders so readily ignore these questions and assume that turnover should be minimized to cut costs?

Here’s an experiment that I’ve run that seems to suggest an answer. After I establish that business leaders react to the turnover rate by wanting to reduce it, I follow up with the following question: “Suppose you are a grocer, and I told you that you your spoilage rate of carrots in your warehouse and stores is 44 percent, about industry average, but that there are industries that achieve inventory spoilage rates much lower than that. What would you say to do about the spoilage rate for your carrots?”

The answers are remarkably different from the answer regarding employee turnover. As one would expect, business leaders draw on their knowledge of supply chain and inventory management. They articulate a logical framework that recognizes that the key outcome is to find an inventory level that optimizes product quality, availability and cost. So, they ask questions such as, “How much do replacement carrots cost?” “What investment would it take to reduce carrot spoilage?” “How quickly can we replenish the inventory?” “What is the lost
margin if we miss a sale of carrots, or if we ask customers to wait until we have more in stock?” The managers implicitly understand that if customers can wait, or margins are slim, or replacement carrots don’t cost much, carrot spoilage is not a serious problem.

By now, the managers have recognized that employee turnover and inventory spoilage are remarkably similar. A much more logical approach to evidence-based employee turnover analysis would recognize employee turnover is one element of a larger process of acquiring, retaining and developing talent. Employee turnover is just like the depletion of inventories. So, the vital outcomes are not limited to turnover rates or costs. Rather, the best decision will strive for the optimum level of talent quality, inventory and availability, accounting for turnover costs but also other costs, and the value of that talent. If vacant positions can be covered for a while, or the lost work is not time-urgent, or those available to replace the exiting employees are of equal or much better quality, then turnover reduction may not be worth the investment, even if it cuts costs.

According to Business Week, “Companies can now model and optimize operations, and can calculate the return on investment on everything from corporate jets to Super Bowl ads. These successes have led to the next math project: the worker. You have to bring the same rigor you bring to operations and finance to the analysis of people, says Rupert Bader, director of workforce planning at Microsoft” (Baker, 2009). That rigor exists not only in the data of finance and operations, but even more fundamentally in the logical tools that guide the data.
Rousseau (this volume) noted that in a classic study of functional managers attempting to solve the same business case, financial managers keyed on financing issues, sales managers on marketing matters, and personnel managers on staffing problems: “Presented with a complex stimulus, the subject [the manager] perceives in it what he is “ready” to perceive; the more complex or ambiguous the stimulus the more the perception is determined by what is already “in” the subject and less by what is in the stimulus.” (Dearborn & Simon 1958). Firms can be viewed as top management mental models (an interpretist view of business) transformed into real organizations (a functional view of business). (Kuhn & Morecraft, 2009).

Non-HR leaders facing decisions about their talent, organization designs, human resource practices, or day-to-day employment relationships, are certainly confronted with a “complex stimulus.” Should it be any surprise if they approach such decisions with models they already understand? Those models are often based on accounting, and they tend to emphasize efficiency, risk reduction and minimum-cost solutions. Or, they might approach such decisions armed with the latest fad or fashion in “people solutions” such as the HR programs of leading companies (GE was popular to emulate for many years), or the most recent book on leadership.

The fact that managers tend to use their dominant models, even when addressing decisions in other areas, may at first seem daunting. A classic mistake is when managers see only the accounting elements of human capital decisions, and adopt decisions that save money in the short run, but create long-term
problems (such as downsizing based only on how much money is saved or to minimize disruption, while losing vital talent in the long run). The fact that leaders rely on their dominant models is often presented as evidence that leaders must be enticed -- or forced -- to learn new frameworks if we hope to get them to incorporate evidence from behavioral science into their decisions about human capital.

However, another interpretation is more optimistic. If managers are already comfortable with dominant logical models from their own disciplines, then using those logical models to convey evidence about human capital may actually accelerate evidence-based HR decisions. These dominant logical models from other disciplines are powerful and untapped platforms on which to build understanding about human capital issues. Perhaps it is better to avoid trying to teach leaders new logical models about organizations and human behavior, and instead to tap the models they already use.

Yates and Potwoworski (this volume) suggest that better evidence-based decisions will result from considering the characteristics of the decision, the parties affected and the ways that decision quality is measured. They note that “cardinal issue resolution” recognizes how decision processes are embedded within prior factors such as habits and experiences, as well as how beneficiaries and welfare are defined. Retooling HR decisions using well-accepted models from other disciplines can better define and explicate these decision elements. For example, employee sourcing might naively be seen as a simple function of filling a position with the most qualified candidate. When retooled within the
logical framework of a supply chain, however, it is easier to see that the
candidates for any particular position may be a part of a much larger system of
jobs, development opportunities and possible destinations, just as the options for
sourcing any organization component are varied. Now, the affected parties to the
decision can be seen to include those that supply the candidates (including
internal units), and the alternative places the candidate might have been assigned,
and that might have benefited from hiring that candidate. This is just how
decisions about sourcing and distribution are made in a supply chain. The logical
definition of decision quality now takes on a much broader scope, and offers the
chance to apply evidence and insight from a broader group of constituents.

So, how does the idea of mental models play into the idea of retooling HR? The
idea of a “talent decision science” has become more accepted, few leaders know
how to build and use one (Lawler & Boudreau, 2009). Organization leaders
remain stubbornly ignorant of even the basics of human behavior, and they are
generally not held accountable for their decision-making quality with regard to
people. Rather, they are held accountable for their use of HR programs, or
workforce characteristics such as engagement or turnover.

Other disciplines rely more heavily on teaching decision makers their
logical frameworks designed to shape mental models. Finance has net present
value and portfolio theory. Marketing has customer segmentation, and lifetime
customer profitability. Operations has supply-chain optimization. Each of these
logical frameworks illuminate relationships, such as between sourcing,
manufacturing, and transportation, among other factors. These frameworks also
provide evidence-based recommendations about how decisions can optimize the outcomes of those relationships. Manufacturing frameworks integrate throughput, assembly tolerances and total quality, providing a common logic structure to integrate evidence from materials science, queuing theory and other disciplines. These mental models are well-understood, commonly taught in management education, and have become an expected capability of virtually all leaders. Leaders, managers and employees are already “smart” about risk, return, segmentation, bottlenecks and tolerances, when these ideas are applied to money, customers and technology. They don’t tend to use those ideas when it comes to people.

Yet decisions about people are remarkably similar to decisions about inventory, investment risk, materials supply, and customer segments. If key decision makers in organizations already have such well-developed analytical and logical mental models for other resources, why not take advantage of those models to improve decisions about talent and human capital? Exhibit 1 shows the idea graphically.

---------- Insert Exhibit 1 about here ----------

The idea is that all organizations want to achieve greater sustainable strategic success, and they understand that such success is enhanced, or made possible, by optimizing the acquisition, deployment, engagement and application of human capital or talent. Underlying that optimization are thousands of
decisions made by leaders, managers and employees about their personal human capital, and that human capital that is under their stewardship.

The mental models of leaders affect their talent decisions, and more effective mental models likely lead to better decisions. So, a key task for organizations is to enhance their mental models about human resources. Mental models for HR are often informed solely by frameworks unique to the HR profession. These are often foreign to leaders, managers and employees, and these constituents for evidence-based HR will understandably resist requests to learn completely new languages and analytical approaches, in order to manage their people. Thus, traditional HR frameworks, reflected in HR systems, measures, and practices, are often too distant from the how business leaders think, to be effective.

“Retooling HR” is shown at the bottom of the diagram. It means taking proven tools from other disciplines, and translating their principles and logic to apply to decisions and analytics about talent and human capital. Recall the example of turnover analysis at the beginning of this chapter. The “proven decision framework” at the bottom-right of Exhibit 1 was the inventory management framework. The “HR and business data and information systems” on the bottom-left of Exhibit 1 was the data on turnover rates, performance levels, acquisition costs and quality, etc. The middle box reflects reframing the turnover rate as one element of a larger talent inventory concept, and the translation and presentation by HR working with inventory management experts. By reframing,
the organization has a “Retooled” decision framework for turnover, that is likely to lead to a more logical and complete analysis, and thus to better decisions.

**Retooling HR Is More than Business Partnership or Leader Accountability**

Managers within and outside HR can find common ground at the intersection of proven business models and the dilemmas of talent and human resource management. Of course it is important for HR leaders to understand the language of business, and for non-HR leaders to become more facile with the principles of human behavior at work, but retooling HR requires more. Retooling requires that HR leaders not only understand the challenges faced by organizations, and how those challenges are expressed through disciplines like marketing and finance. It also requires that HR leaders and researchers apply the underlying logic of those disciplines to vital human capital decisions.

Of course it is important for leaders outside of HR to see human capital as their job, and to be held accountable for the quality with which they enact HR programs, but retooling requires more. Retooling requires that leaders outside of HR abandon the idea that human capital is totally different from the other resources under their stewardship. It requires that organization leaders apply the logical and analytical mental models they use for traditional resources to their human resources. It requires that they unlearn the mental model of HR as an administrative and cost-reducing endeavor, and embrace the idea that risk and optimization are a fundamental part of human resources, just like all their other resources.
Retooling HR may be one factor in enhancing the support that organizations provide for field research on human capital and organizational issues such as how HR systems function, which interventions work, and the circumstances that affect them. Research on new products, brands, materials and technology is supported in part because decision makers have rich mental models with which to estimate the potential returns. More accessible HR frameworks, based in part on frameworks leaders already use in other areas, may clarify the value of HR research that “fills in the blanks” of their mental models. For example, organizations engaged in mining, extraction and exploration invest heavily in large-scale studies to map potential sources of oil, gas or minerals. They begin the exploration process years or decades before they actually drill or mine. They accept that this is expensive, and that most of the exploration does not turn up viable oil fields or ore beds. Yet, it is well worth the investment for the potential payoff.

In the same way, when organizations are embarking on activities in regions with under-developed human capital infrastructure, early research on issues such as literacy, values and culture may have large payoffs in terms of insuring an available and ready workforce. Yet, the latter research is often overlooked, resulting in systems that staff positions at the last minute, or produce costly vacancies. Retooling the value of research to improve workforce planning within the framework of prospecting or oil exploration can clarify the value of such research, and lead to increased support.
Fitting HR Evidence into Standard Business Logic Models

Exhibit 2 provides some initial ideas about where prominent findings from organizational and behavioral science might fit within standard business logic from other disciplines. There are undoubtedly other examples, so the Table conveys the potential for rethinking how scientific evidence about human capital is conveyed. For each type of human capital evidence on the left, there is a traditional business logic model into which it can be embedded, shown in the middle column. In the right-hand column, the combination of the evidence and the business logic retools the evidence using the traditional logic. If managers see that “employee recruiting and retention is a lot like customer recruiting and retention,” or “building and combining talent assets is a lot like building and combining financial assets,” there will be a greater desire and use of evidence from the HR disciplines.

---------- Insert Exhibit 2 about here ----------

Retooling the “Risk” in HR Using Standard Business Logic

Typical approaches to risk in human resource management are often very different from the comparable concerns in other areas. When it comes to HR, the mental models of leaders too often gravitate toward risk-reduction, rather than risk optimization. This is likely due to the important but traditional emphasis of HR on avoiding legal or employment problems, and the greater tangibility of HR costs versus benefits (Boudreau & Ramstad, 2007; Boudreau,
Generally, HR and business leaders approach talent risk with an eye toward reducing or removing it. Yet, a fundamental premise of virtually all other management disciplines is objective evaluation of risk. Evaluating risk objectively commonly entails accepting a certain degree of it when it makes sense to do so. The table provides an example of how scholars, teachers and practitioners might reframe HR-related evidence, to begin the conversation about how to analyze risk in HR more like it is done in other business disciplines.

Retooling HR is consistent with the decision focus and the four elements of evidence-based management this Handbook specifies. Evidence-based management aims to enhance decisions. Retooling HR issues using well-accepted logic models is designed to help leaders bring the same decision rigor to HR issues that they bring to more traditional resources such as money and inventory. Indeed, the well-accepted business frameworks are generally designed as decision support systems, with the frameworks guiding the structure of planning systems, measurement, data and ultimately the definition of optimization (Boudreau & Ramstad, 2007). By framing HR issues within such frameworks, decision makers
are invited to draw upon familiar routines used for decisions about other resources.

Second, retooling HR encourages the use of validated external evidence. Reframing HR issues as similar to traditional management issues clarifies the value and need for valid external evidence. For example, lacking a retooled model, how might leaders approach the decision regarding whether to customize employment “deals” for different employee groups? Leaders unfamiliar with HR evidence might presume the people are so unpredictable and their behavior patterns so obscure, that it makes little sense to attempt to systematically optimize how deals are customized to different groups. They might simply offer a similar package of rewards to all, assuming that any further attempts to customize are fruitless. Or, they might agree to employee requests for special deals, assuming there is little evidence-based rationale for saying “no” to some and “yes” to others. Yet, there is a great deal of evidence using techniques such as policy capturing to map employee and applicant preferences (e.g., Karren & Barringer, 2002), as well as evidence that matching rewards to employee needs can affect performance, turnover and engagement. Retooling would recognize that optimally customizing the employment deal is similar to optimizing product and service offerings to customers in the marketing discipline. The marketing discipline brings a wealth of tools to gather evidence from customers, as well as evidence-based frameworks of consumer behavior to help predict where customization will create the greatest response. Retooling the decision customizing the employment deal using a consumer marketing framework
clarifies the potential value of evaluated external evidence on the employment
deal question, as well as suggesting new logical frameworks to better use that
information. External evidence about employee preferences, demographic
segments, etc. has greater meaning.

Third, retooling HR can reveal ways to engage stakeholders and consider
their preferences and values. Well-accepted business frameworks are specifically
designed to capture and reflect stakeholder preferences and values. Using
consumer behavior and marketing frameworks to retool employment
customization can reveal methods for tapping and analyzing employee and leader
preferences, often in a more sophisticated way than is typically applied to HR
decisions. Retooling HR through supply-chain tools can enhance an
organization’s ability to transparently communicate with employees about
employment and career options, by creating a common language about work
rewards and requirements, as was the case with IBM’s global workforce “supply
chain” system (Boudreau, 2010). Retooling HR also enhances consideration of
stakeholder values is by specifically engaging experts and leaders from other
disciplines, inviting them to bring their professional models to bear on HR
decisions. Retooling HR decisions within frameworks such as financial portfolio
theory, consumer marketing, engineering, and supply chain creates a natural
bridge for experts in those fields to more fully engage and bring their evidence to
bear on HR decisions. Indeed, when IBM’s HR organization set out to create a
talent supply-chain system, they called upon one of IBM’s highest-ranking
supply-chain experts to design and support it.
Fourth, retooling HR reflects the evidence-based management principle that systems must incorporate the unique experiences of practitioners to inform the most relevant and impactful research questions and designs. Retooling HR increases the relevance and connectivity of HR decisions with stakeholders in non-HR disciplines, so it can increase the amount and diversity of practitioner experience and judgment available to the HR field. For example, a familiar practical issue in optimizing supply chains is that optimizing the whole chain requires sharing decisions across the elements of the chain (e.g., among producers, shippers, retailers, etc.). Yet, each actor in the supply chain may be reluctant to concede decision rights and information to others. If each manufacturer, shipper, warehouse and supplier chooses to operate without such information sharing, such systems can quickly fall victim to massive and unnecessary excess inventory, as each player mitigates their individual risk by holding buffer inventory levels (Reddy, 2001). The solution in operations management, is to develop a common language for the materials and information that flows through the chain, and to allow those with the most current information (usually the retailers at the end of the chain who come into contact with ultimate customers), to drive decisions about how much to produce, store and ship. It turns out that this practitioner wisdom from operations management is applicable as well to HR management. In particular, when organization can develop a common language to describe jobs, competencies and development opportunities, they can use it to construct a “supply chain” of talent that is far more transparent.
and efficient than one based on a multitude of diverse work descriptions and
development paths (Boudreau, 2010).

Finally, retooling HR can address the evidence-based management
principle that research and practice must appreciate context, organizational actors
and circumstances. Particularly with HR decisions, research and practice often
fail to consider the context of the organization and its other systems. Retooling
HR decisions using frameworks from other business disciplines creates a natural
connection between research and practice in HR with organization actors in other
functions. Moreover, as HR researchers and practitioners learn more about
accepted business models in other disciplines, they will better understand the
logical frameworks and empirical realities of systems from finance, marketing,
operations, and others. There is much to be learned by HR researchers and
practitioners about these other systems. Equally, however, there are important
contributions to these other disciplines that can arise from integrating behavioral
considerations into their models and research. Several studies have shown the
value of addressing human behavior consequences of operations management
design decisions (Boudreau, 2004; Schultz, Juran & Boudreau, 1999).

Mental Models Matter
Organizations miss a significant opportunity to make human capital decisions
more evidence-based when they ignore the relevance of business models from
other disciplines. Pfeffer (2005) contrasts the statements of the CEO of
American Airlines in the mid-1990’s who “wants to see the corpse” of whomever
caused a plane to be late, creating a culture of “fear and infighting as people and
units tried to pin the blame for problems on others.” Pfeffer (2007) notes that in research on managerial decisions, “practicing managers’ responses to scenarios involving various decision dilemmas could be predicted by their different assumptions about human nature, which, in turn, shaped their different philosophies of corporate management and governance. Those assumptions were, in large measure consistent with economics -- that is, the managers assumed that people are self-interested, may engage in self-interest seeking with guile, and are effort averse so that they require incentives and monitoring to ensure performance.”

Decades of research suggests such assumptions are likely to lead to poor decisions, increase the risk of losing top talent, reduce the motivation of employees to perform well, and create poorer job attitudes. However, much of that research emanates from psychology and organization behavior, not economics and management. Think how differently leaders might react if their assumptions about people were recast with logic from other business disciplines. For example, “Assuming that your employees require constant monitoring for them to perform is like assuming that the machines in our manufacturing plant need constant monitoring to run well. You waste a lot of time and effort if you try to monitor every aspect of manufacturing, and evidence shows that less monitoring is often not that risky, and much more productive. You can manage manufacturing by exception. Why, then, do you insist on monitoring your employees so closely, when evidence shows that if you give them more discretion, they will perform better and you will spend less on tracking systems?”
Notice how reframing the issue provides a ready metaphor from manufacturing, to capture the value and use of evidence about employee monitoring and discretion.

Decision makers use mental models when they confront issues of human resources and human behavior at work. Those models determine the evidence they consider relevant, and the assumptions they make about evidence that they encounter (Potworowski & Green, this volume). If they approach decisions about human motivation and performance largely through a logic model that assumes economic self-interest as the exclusive driver, then evidence about trust, commitment, intrinsic loyalty and non-monetary needs has little “room” in the model. Reframing within the logic of quality and systems optimization can open the door to evidence about optimum monitoring and risk. Reframing within the logic of consumer behavior opens the door to consider evidence of intrinsic loyalty, non-monetary needs and “trust” in a brand. The catalyst for this might be questions such as, “You know from your background in marketing that our customers are often motivated by product, brand, and social factors that go beyond the simple economic value and price of our offerings. What if that is also true of our employees, and their motivation? What evidence might be useful to understand these ideas about employees?”

Leaders Know They Are Not Good at Talent Principles

Research conducted at the Center for Effective Organizations suggests that both HR and non-HR leaders know that business leaders have room to improve their sophistication when it comes to principles of human behavior. Exhibit 4 shows the results of a survey of HR and non-HR leaders. We asked both groups to
consider whether business leaders use sound principles when they make decisions in several areas of human behavior. We also asked them the same question with regard to several more traditional management disciplines including Strategy, Finance, Marketing and Technology.

The first two columns of the table show the average ratings. On average, the use of sound principles in the human capital areas was at or below the midpoint of a five-point scale. Business leaders rated themselves somewhat higher than HR leaders rated them, but both business leaders and HR leaders rated the human capital disciplines lower than virtually all of the more traditional disciplines in the bottom of the table.

When Leaders Are Good at Talent Principles, HR is A Stronger Strategic Partner

The second two columns show the correlations between a separate question about the strength of HR as a strategic partner, and the ratings of how well business leaders use sound principles. The results show a significant positive association for both samples and for virtually all of the human capital disciplines. The higher the ratings HR or non-HR leaders gave business leaders on using sound human capital principles, the higher they rated HR’s strategic role. Notice in the bottom of the table, that this relationship is less pronounced for the traditional business disciplines, suggesting this relationship reflects something specific about human capital mental models. One might have predicted that weaker business leaders
would require a stronger HR strategic partner to make up for their shortcomings, but the results show just the opposite: The stronger are business leaders in sound human capital principles, the stronger the strategic role of HR.

**Retooling and Team Shared Mental Models (SMM’s)**

The literature on team mental models and performance offers insights and a research model. If we think of a “team” of HR leaders and their non-HR counterparts, research on how teams benefit from shared mental models (SMM’s) is illuminating as a theoretical base for predicting the effects of retooling and reframing HR decisions and evidence using proven business models. An SMM is a team's shared representation, comprising shared knowledge, skill, attitudes, the team's objectives, team processes, teamwork components, communication, coordination, adaptation, roles, behavior patterns, and interactions (Cooke et al., 2003).

Research suggests that SMM’s among team members has a number of positive effects (Johnson & O’Connor, 2008):

- Teammates who have similar beliefs and knowledge structure are better able to anticipate their teammates' actions and information needs and to respond effectively (Cannon-Bowers et al., 1993; Rouse et al., 1992; Smith-Jentsch et al., 2001).
- High levels of shared mental models lead to greater team expectations that influence effective team behaviors (Rouse et al., 1992).
• Teams with SMMs require less overt planning because teammates are able to predict what others will expect, thus reducing the need to explicitly communicate (Rouse et al., 1992).

• Teams with SMMs use their shared knowledge to adapt quickly to changing task demands (Cannon-Bowers et al., 1993).

Thus, if retooling HR can contribute to shared mental models (SMM’s) among academics in different disciplines, and between HR leaders and non-HR leaders, the SMM evidence suggests untapped opportunities to find common ground and improve performance. These SMM’s seem unlikely to arise solely through the mental models that underpin traditional scholarly research. Rather, it seems more likely that SMM’s will be built by first understanding the mental models that ultimate decision makers use, and then tapping those models to reframe human capital decisions and research. The consequences of SMM’s listed above would be worthy goals indeed for evidence-based approaches to human resource, human capital, and organizational issues. Imagine situations where the “team” described above included scholars, HR leaders and non-HR leaders, and their interactions and performance could be described as having “similar beliefs and knowledge structures,” “effective team behaviors,” “implicit communication,” and “rapid adaptation to changing needs.” Many might say that these descriptions seem to be almost the opposite of what is typically observed in “teams” of HR and non-HR leaders, yet such team behaviors describe important underpinnings of a truly effective and evidence-based approach to vital decisions.
How Retooling HR can Enhance the Elements of SMM’s

Research on the composition of SMM’s (e.g., Johnson et al., 2007; Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000) suggests that they are composed of various categories: team dynamics, such as team members' roles and responsibilities; teammates, including team members' knowledge, skills, abilities, beliefs, preferences, and styles; and task, for instance, cue strategy associations, understanding task procedures, and typical task strategies (Cannon-Bowers & Salas, 2001; Cannon-Bowers, Tannenbaum, Salas, & Volpe, 1995). Let’s consider how retooling might affect each of these.

Task Elements of SMM’s

Regarding tasks, team SMM’s enhance the understanding of facts, concepts, and relations and help in the understanding of the foundation of information needed to perform tasks (Langan-Fox, Anglim, & Wilson, 2004). In addition, sharing knowledge enables teammates to interpret cues in a similar manner, make compatible decisions, and take appropriate action (Klimoski & Mohammed, 1994). Thus, if retooling HR produces SMM’s between HR and team members outside of HR, the relevant evidence, performance requirements, effectiveness definition and cues will be interpreted more similarly, leading to more appropriate action.

Consider the decision about whether to customize rewards to individuals or specific groups (such as millenials, developing-market leaders, etc.). When evidence such as differences in needs, total reward elements (such as pay, benefits, development opportunities, flexibility, quality of supervision, etc.), and
relationships between rewards and outcomes is framed only within an HR model of compensation structures, expatriation rules, equity theory, etc., then non-HR leaders who are neither familiar nor experienced with such frameworks may ignore the evidence or misinterpret it. However, we have seen that if leaders already understand and accept a logical framework such as customer or market segmentation, then the decision about where and how to customize the employment “deal” may be approached through a mental model similar to how marketing might examine the decision about where and how to customize the “deal” for consumers. If scholars and leaders within the HR discipline were framed their evidence and arguments within the consumer-customization framework, it might create a stronger SMM with their non-HR counterparts. The task of deciding where and when to customize the employment deal now can draw upon shared task knowledge from marketing and consumer research, and achieve more of the valued team-based outcomes that research suggests is associated with SMM’s.

Teammate Elements of SMM’s

Teammate elements of SMM’s include the shared understanding of team members’ knowledge, skills, beliefs, preferences and styles. Retooling HR seems likely to help clarify the respective relevant expertise of non-HR leaders and HR leaders for human capital decisions. This is a fundamental problem in evidence-based HR decisions. HR and non-HR leaders are often unaware of existing research knowledge, as many chapters in this volume attest. Non-HR leaders often have no framework for understanding the skills that comprise HR expertise,
and the beliefs of HR and non-HR leaders are also often unknown to each other. For example, non-HR leaders often believe that their knowledge of worker motivation and performance is sufficient for decisions about feedback, goal setting and performance-based rewards. It is not unusual for them to believe that they should strive to motivate everyone to be a top performer on all elements of the job, and that they should always try to place the best possible candidate in every role. Yet, decades of evidence suggest that the relationship between the quality of employees or job candidates and their contribution to organizational goals can vary. Differences in job performance have very large effects in some roles and much smaller effects in others (Cascio & Boudreau, 2011; Hunter, et al., 1990). Retooling the job performance question in the framework of engineering performance tolerances reveals that it is a special case of a very typical management question -- “Where will improvements in quality or performance make the biggest difference?” Seen through this lens, it is clear that leaders choose where to push for maximum performance or quality, and where to be satisfied with meeting minimum standards, in disciplines such as engineering, operations and marketing. The same framework applies to employee performance (Boudreau 2010). Thus, the beliefs of HR leaders and their counterparts can be better aligned when the performance management question is retooled. Moreover, seeing the question as similar to the performance-value relationship from other management areas clarifies the potential contribution of HR research on the relationship between performance and value.

*Team Dynamic Elements of SMM’s*
A team’s SMM’s often focuses on its members’ roles and responsibilities. Retooling HR issues within the frameworks that are well-accepted by constituents can shed light and help align team member roles. Recall the example above, retooling performance management as a special case of performance tolerances. Typically, a performance management issue may be seen by line leaders as an opportunity to ask HR to develop a new performance management system, one that reflects the attributes that are most tangible to the line leader. The leader might want a system that is easier to implement, resembles system that are used by well-known companies, or one that reduces the need for them to have difficult discussions with poor performers. Yet seen through the framework of performance-tolerance models, the relationship of the leader to their HR counterpart is different. When it comes to performance tolerances in other disciplines, a line leader would not ask an engineer or a financial advisor to develop a performance evaluation system simply based on the line leader’s specifications or weekend reading. The line leader understands that they certainly must bring their knowledge of their goals and operations, but they also understand that the production engineer will bring many tools for isolating the relative effect of improvements in the quality of different elements of production, and the finance advisor will bring many tools for identifying where investments or better handling of money can make the biggest difference (such as isolating whether improved sales or improved cost control is needed to enhance cash flow). Armed with this retooled framework for performance management, non-HR leaders understand that their HR counterparts should bring tools and frameworks
for understanding where employee performance and quality make the biggest
difference, and how to enhance them where they matter most. The retooled
framework also helps HR leaders understand that their role is not to dictate to
their non-HR counterparts the “correct” approaches to performance appraisal and
rewards, but to work with them to isolate where such tools are likely to have their
greatest effect, and to tailor such systems so that increased detail or complexity is
clearly worthwhile. Thus, both HR and non-HR leaders now can proceed from a
common understanding that the goal is to optimally match the performance
management system to the criticality of the performance issue. HR brings
evidence to bear where it matters most, but is not compelled to create perfectly
“valid” systems everywhere. Non-HR leaders realize that while they may have
intimate knowledge of their workers and their business goals, they should no
more adopt a performance management system without consulting their HR
counterparts than they would adopt a cash-flow or production system without
consulting their financial or operations engineering experts.

Measuring the Mental Models of HR and its Counterparts

Research on team mental models suggests intriguing methods for measuring the
noted that SMM measurement has focused on both the similarity of knowledge
structure and knowledge content. Cannon-Bowers and Salas (2001) identify three
approaches to measuring knowledge structure. The first concentrates on the
“pathfinder” that calculates the psychological distance between constructs. The
second, the “concept map,” depicts the structure of individual beliefs in a
particular domain. The third checks the similarities of cards chosen as the “reflective measure” of psychological similarities or diversity.

These all focus on measuring knowledge structure rather than knowledge content contained within it (Kang, Yang and Rowley, 2006). Is it enough that the mental models be shared, or should the models themselves also be consistent with evidence-based knowledge? HR leaders and their counterparts can probably achieve SMM’s by adopting shared models that may not fully use evidence-based knowledge. A typical model might focus on “efficiency,” or achieving the lowest-cost HR activities. For example, it might dictate that the correct way to implement layoffs would be to cut across the board to meet necessary cost levels. Both HR and their line counterparts might have very aligned mental models regarding their roles, expertise and objectives. Yet, evidence suggests that such approaches may be harmful to long-term organization success and employee well being (Cascio, 2002). Thus, the measure of the quality of SMM’s should not simply be based on alignment and effective team functioning, but also on whether the mental models themselves are evidence-based. Again, retooling HR using logical frameworks from other well-accepted disciplines may address this, as in many other disciplines there is an explicit framework for considering distinctions between short and long-run consequences, and between cost reduction and value creation.

Imperatives for Improving Team Mental Models, and the Role of Retooling

Arthur, Maes and Bratton-Jeffrey (2005) summarized five imperatives for improving team effectiveness through shared mental models. They suggest
several ways that retooling HR with accepted logical frameworks from other disciplines can contribute to each imperative.

Imperative 1: Clarification of team objectives and tasks, environment and variables. Retooling clarifies objectives by suggesting new measures of success, such as the difference between minimizing turnover and optimizing it, the difference between insuring that competencies are useful in all future situations versus optimizing a portfolio of competencies. Retooling redefines how the group considers the relevant variables and environmental factors, such as by redefining the relevant data as comparative turnover rates to instead be the business risk associated with vacancies, and the “ordering” and “holding” costs of staffing.

Imperative 2: Establishing roles and responsibilities. Traditional role assumptions might be talent issues are addressed by HR at the request of line leaders and that the “business” models apply to non-talent issues and “HR” models apply to talent. Retooling suggests that non-HR leaders may bring useful logical models to the talent arena, and that HR leaders are expected to shape solutions by considering options that arise from understanding talent value, cost and risk.

Imperative 3: Information processing, communication, and collaborative modeling rules and procedures. Retooling suggests new frameworks for information processing, communication and collaboration. Reframing talent issues within logic that is accepted by line leaders causes data such as turnover rates, engagement scores, competency levels, etc. to be processed differently. It opens up new ways to communicate about those ideas. It heightens collaboration
because the new model is to examine what we can learn about talent by applying proven logical models wherever they exist, rather than seeing the talent decisions as distinct from the dominant logical models of other disciplines.

Imperative 4: Knowledge of team members' background and style.
Although it is often quite apparent that different decision makers have expertise in their different functions, retooling provides a means for discussion about those boundaries and distinctions. For example, retooling workforce strategy and competency planning within the framework of portfolio theory shows that workforce competencies can be optimized against an uncertain future, using tools similar to those that optimize financial portfolios (Boudreau, 2010). This perspective reveals the value in solving HR planning issues with team members who have backgrounds in portfolio risk.

Imperative 5: Collaborative modeling scheme. Retooling suggests that new collaborative models will arise when HR and non-HR leaders agree in principle to pool their resources, by using proven business logic to reframe and inform talent analytics and decisions. Collaboration is not limited simply to identifying talent needs and then relying on an HR process model to meet them. Instead it begins earlier as talent issues are considered more collaboratively through the lens of proven business logic.

**Mental Models May Be More Vital Than Comprehensive HR Measures**
A common belief is that if HR measured itself in ways more similar to areas such as Finance and Marketing, the improved measures would enhance HR’s strategic role, and the sophistication and quality of the decisions that non-HR leaders and
employees make about the human capital under their stewardship. Typically, such competencies seem to reflect HR’s ability to gather, summarize and analyze data, often using statistical approaches from the disciplines that are already foundations of human resource management, such as industrial psychology. HR analytics and evidence-based HR is often synonymous with statistically proving the causal relationships between HR investments and organizational financial outcomes.

Yet, without clear logical frameworks for using data, even such causal measurements can be dangerously misinterpreted, or ignored. Evidence-based decisions not only require measures, but also sound logic (Boudreau & Ramstad, 2007; Cascio & Boudreau, 2011). More measures don’t necessarily improve the logic. Indeed, trying to foist complex statistical analyses on business leaders is a recipe for frustration and resistance. For example, HR might be able to show the causal relationship between organizational outcomes and such things as employee engagement, turnover, performance or training prowess. Nonetheless, this finding still begs the question of how much should be invested in each of these things, to optimally improve organization performance. Even if HR can use sophisticated data mining techniques to predict which employees are likely to leave or join the organization, that still begs the question of how to use that knowledge to optimally invest in the right levels of employee retention and acquisition. A fundamental pillar of evidence-based management is identifying the relevant scientific evidence on which to base organizational actions. Better mental models
are a precursor for organizational decision makers to know when and how to use HR research.

The paradox is that HR is based upon some of the most rigorous and analytically sophisticated analysis methods in the social sciences, but they are simply not in the lexicon of the leaders that make most of the decisions about people. Decades of research by psychologists, sociologists and others has produced statistical tools that can unearth important insights, and an array of well-documented tools to track things like turnover, engagement, performance, capability, skills and commitment, as several chapters in this volume describe.

Too often, however, these tools and analysis frameworks are the sole purview of HR professionals, or the purview of those Ph.D. analysts in the HR function. Why are such potent tools more widely used by leaders outside of HR? This has been a perennial question at professional meetings of industrial psychologists, researchers in HR, and HR professional societies for decades.

The answer is that we must consider not just the sophistication of the frameworks used within the HR profession, but rather their accessibility to leaders and employees outside of HR. It requires considering how to connect HR analysis frameworks to the logical mental models that leaders already know, use, and trust. This is far different from convincing leaders they should attend to measures, analysis and findings that are couched exclusively in the lexicon of HR. There is a growing emphasis on evidence-based approaches to talent management, inspired in part by the “evidence-based medicine” movement. The idea of evidence-based medicine is that doctors, nurses, and other clinical
decision makers will draw upon the best possible evidence in making their choices. Yet, studies of how doctors really made decisions suggest that much clinical practice is not based on the latest scientific information, but rather on such things as textbooks, obsolete premises, untrustworthy research, unendorsed reviews, and anecdotes or personal experiences. They may rely too heavily on what professors told them, rather than more recent or comprehensive evidence. Even in medicine, clinicians often do not believe that results observed in trials can be directly translated into clinical practice (Rodrigues, 2000).

Create HR Measurement Systems that Make It Easy to Use Evidence

A key element of evidence-based medicine is getting evidence used. That requires changing the way clinicians think about how they approach their work, and the role of evidence within it. Evidence must fit with the way clinicians do their work. It needs to be more naturally embedded in the way they actually encounter patient problems, and appropriate to the particular questions they need to address. Clinicians want fast, up-to-date and concise responses to their queries. They need the body of scientific evidence organized into “systematic reviews” that answer a specific clinical question by using rules that capture, appraise and synthesize the information in the most relevant ways (Briner and Deyner, this volume).

In the same way, an overlooked key to greater analytical and evidence-based sophistication in talent management may be that the information is not organized and presented in ways that managers can use in making their decisions. Far too many HR information systems were designed to be efficient and accurate sources of information to satisfy the compliance or financial reporting needs of the
organization. A compliance-based design seldom makes it easy to discern the most vital trends, relationships and factors affecting key decisions.

The Conference Board research on evidence-based human resources management reported that in 2004, it was still difficult to establish causal relationships between human capital metrics and business outcomes, despite the fact that about half of the respondents reported active collaboration between human resource managers and those in other business disciplines (Gates, 2008). The answer may be to connect the data to different frameworks that are more familiar and more useful to those that make the vital human capital decisions. It seems unlikely that much progress will be made by insisting that leaders become adept at the disciplines that underlie HR, such as psychology, organizational behavior, behavioral decision making. Decades of research in these areas do not seem to have produced deep penetration into leadership mental models or training. Something different is needed to bridge the gap.

Educate Non-HR Leaders

It has often been suggested that improved decisions about human capital, and greater credibility for the HR profession, requires that HR professionals become more familiar with “the business,” meaning the operational, financial and strategic goals and logic of their organizations. Anthony Rucci, EVP at Cardinal Health and a key opinion leader on using HR measurements to connect people and business outcomes, stated “Business acumen is the single biggest factor that human resource professionals in the U.S. lack today” (Gibbons, 2009). This gap is typically addressed by increasing the development and training of HR
professionals in disciplines such as finance, marketing and operations. It is also the reason many organizations place leaders from outside the HR profession in leadership positions within HR.

However, it’s also possible fostering a connection between HR and business expertise misses a crucial point. No matter how well HR understands the business, a key to better decisions is in the mental models of those outside of HR. In particular, a significant limitation may be the sophistication with which non-HR leaders approach decisions about human capital and talent. An HR industry survey found that 39 percent of HR leaders rated “understanding how to align with business leaders” as a most needed competency (Bersin, 2009). Alignment requires more than being right or even “knowing the business.” It is much more about educating non-HR leaders, and a vital element of that education is the mental models that business leaders use.

Yet, non-HR leaders are seldom informed of these principles. The standard curricula for organization and business leaders rarely require as much training in human behavior, as it does in the behavior of money markets, customers or supply chains (Colbert, Rynes and Brown, 2005). While no organization allows anyone to run a significant operating unit without demonstrating a basic understanding of these disciplines, many organizations allow leaders to pursue entire careers without ever assessing whether they are remotely familiar with sound principles in human capital areas. It seems unlikely that managers will become sophisticated in the standard paradigms that define human capital research and evidence. The path toward greater sophistication
regarding talent issues, among non-HR leaders, is not navigated simply by providing analysis and insights that reflect the traditional mental models of the HR profession. The first steps must likely be taken by meeting leaders at least halfway. To advance evidence-based HR management requires translating the valuable insights that reside in HR data, systems, and processes in a way that leaders can comfortably digest.

Avoid Opacity

The frameworks and systems that HR provides are often based on disciplines that non-HR leaders don’t understand, use jargon that is exclusively understood only by those in the HR “club,” and require decision makers outside of HR to be counseled and even overseen by certified HR professionals. It is tempting to see this opacity as giving the HR discipline exclusivity and power. There is certainly a place for controls in certain areas of HR, to maintain legal compliance, for example. However, if carried too far, the use of frameworks, data and principles that are foreign to those outside the profession can shut out managers who would like to better understand HR issues such as attraction, retention and performance, but are discouraged by the tendency for these things to be addressed in very arcane ways. If your club is so exclusive that your key constituent can’t join, you can’t very well influence those who are excluded!

More mature professions like Finance and Marketing have distilled a set of principles that not only invite those outside of their profession to use their frameworks, they actually often require that the basic principles be understood, as a prerequisite to a managerial or leadership role. The analysis systems of finance,
marketing, operations and manufacturing actually teach these fundamental principles as users interact with the system (Boudreau & Ramstad, 2007). For example, in Finance, the formula for Return on Equity is well-known to managers in every discipline. It provides a useful and consistent starting point for understanding where the effects of operating and financial decisions may impact financial returns. There is a deep underlying set of measures, principles and calculations supporting this concept, and the finance profession requires at least a basic understanding of this formula for virtually any competent business leader (Boudreau & Ramstad, 2007). With this consistent and valid framework, finance and accounting professionals can be much more effective at helping all organization members to think clearly about the financial implications of their decisions.

When it comes to talent decisions, such broad principles are often more obscure. For example, it is not unusual for HR to present its measurements in the form of a vast array of indicators, sometimes organized into categories based on a scorecard or portal. Yet, it is often quite difficult for leaders to know where to look to understand the overall pattern. This is often the basis for managers’ requests that HR simply provide three to five measures for leaders to track. The problem is that the three or five most available measures may not be very informative regarding underlying relationships between human capital and organizational outcomes. For example, every set of such measures includes turnover rates, but as we saw, turnover rates have very different implications depending on the situation.
Finance, Marketing and Operations Are More Systematic -- and More Transparent

Improving the quality of HR activities like staffing, training, succession planning, and compensation is valuable and important, but no more sophisticated practices can only go so far, in the hands of employees and leaders who are not equipped to think clearly and logically about the underlying issues. Well-meaning leaders and employees will dutifully implement HR practices or attend to HR measures such as turnover and engagement, but often without a logical framework that helps them understand how these things relate to the organization’s ultimate success.

Managers are also held accountable for outcomes such as cash flow and market share, but here they often have a far better idea about why these things are connected to strategic success. This is because of a subtle difference between the way organizations approach their competition in the market for talent, and the way they approach decisions in the markets for money and customers. Finance frameworks create organizational value by enhancing decisions that depend upon or impact financial resources. Marketing frameworks create organizational value by enhancing decisions that depend on or impact customer or product resources. Finance and marketing provide reliable and deeply logical frameworks that connect financial and customer capital to the organization’s sustainable strategic success. Strategic decisions must go beyond generic “best practices” to create a unique and sustainable competitive position for the organization (Porter, 1996).

In the same way, an important element of the evolution of talent management and human resources will be the development of a decision science that provides
principles to guide decisions in the market for human capital or talent (Boudreau & Ramstad, 2007). The power of more evolved disciplines isn’t merely that Finance, Marketing and Operations are necessarily more logical, analytical or even more precisely measured. There is plenty of available logic, analysis and measurement to help leaders make better decisions about people. However, unlike the other disciplines, HR has not yet developed a decision science that is understood and used by leaders outside the profession.

Decision sciences like Finance and Marketing have developed a body of principles that are commonly understood by those outside the profession. One might think that if everyone understands the body of principles, the profession will be diminished because everyone will think they can do it as well as the experts. However, in the case of finance and marketing, widespread knowledge of the basic principles does not detract from the credibility of the profession -- quite the opposite. By making the profession’s principles more transparent, such basic principles actually foster greater understanding and respect for the more nuanced underlying principles on which they are based. Recall the findings in Exhibit 1. Business leaders savvier about human capital principles were more likely to perceive HR as a strong strategic partner, not less. By connecting the considerations in the world of talent and human capital to these already-trusted frameworks, you can enhance understanding and ultimately respect for the systematic principles that underlie the HR and talent discipline.
Getting Started -- Unlearning, Setting Priorities, and Rapid-Prototyping

How to begin? Three perspectives, themselves long recognized by other disciplines but not as often applied to changes in human resources, may provide some clues about where to begin. They might be called “unlearning,” “80-20 priorities,” and “rapid prototyping.” Let’s examine each of them.

Unlearning to Make Room for Learning

Rousseau (this volume) suggests that evidence-based management may require building “scaffolding” between the dominant mental models of leaders, and the logical models required to make better decisions based on evidence. This requires that managers be induced to think about their thinking, specifically to think about what is their dominant mental framework, and to shore up weak spots or to connect to other disciplines. In order to motivate meta-cognition about human resource decisions, it may be necessary to frame them in terms of more familiar models, precisely to provide a framework for meta-cognition among leaders unaccustomed to human behavior principles.

Rousseau (this volume) also notes the reluctance of leaders to gather and confront organizational facts, citing the leader who asked not to be given evidence because, “if you give me data I have to act on it.” The idea of retooling HR evidence is in many ways a proposal to confront managers with their blind spots, by showing how differently they approach human capital decisions from other decisions, and then to invite them to build scaffolding between their more standard and rigorous decision models, and the human capital decisions they face.
C.K. Prahalad, writing about how leaders must rethink their ideas of “competition,” suggests that organization must unlearn in order to learn (Gibson, 2010, p.1) He says, “Companies are going to have to unlearn a lot of their past -- and also to forget it! The future will not be an extrapolation of the past. Like a space rocket on the way to the moon, a company has to be willing to jettison the parts of its past which no longer contain fuel for the journey and which are becoming, in effect, excess baggage. That is particularly difficult for the senior managers – those who actually built the past, and who still have a lot of emotional equity invested in it. If you want to escape the gravitational pull of the past, you have to be willing to challenge your own orthodoxies, to regenerate your core strategies and rethink your most fundamental assumptions about how you are going to compete.”

A great deal of evidence suggests that everyone from leaders, to military strategists to scientists tend to become attached to the mental frameworks they have used, in particular when they helped to build them. For example, the idea that ancient “land bridges” allowed animals to migrate across the oceans between continents like North America and Africa had to be unlearned in order for the theory of continental drift to offer what turned out to be the more correct explanation for the dispersion of species and geological formations across the continents.

What are the conditions that foster unlearning? Starbuck (1996) suggests the following premises that often drive recognition of the need to unlearn past logical frameworks (Starbuck, 1996).
Welcome the realization that things are not good enough. Dissatisfaction with the outcomes being achieved is an obvious reason to consider unlearning. Unfortunately, because mental models are often very entrenched, it often takes very serious problems or disappointments to support fundamental unlearning. Still, HR leaders can be alert to situations where results have been disappointing for a long time. For example, in the arena of talent development, it is not unusual for leaders to recognize that despite a belief that identifying and listing successors for future positions should be a useful way to guard against top-level vacancies, virtually all leaders recognize that the succession chart is too often not the place from which future leaders emerge. In particular, with the broad recognition of the top-level shortages potentially driven by an aging workforce, it may be possible for HR leaders to use dissatisfaction to suggest that the standard approaches to succession and development might benefit from the perspective of logistics and risk-optimization. Evidence regarding the patterns of career progress, the determinants of career success and satisfaction (Judge, et al., 1995), and factors that accelerate learning and experience (McCall, 2010) may be more useful and compelling when portrayed within such goals.

Frame the unlearning as an experiment. If leaders see themselves as experimenting, and not abandoning long-held approaches, they may be more willing to test and question their assumptions. Experiments provide opportunities to create surprises in controlled situations that may become the evidence leaders need to rethink their existing models, unlearn them, and apply other models instead. For example, it’s not necessary to apply preference mapping to the entire
workforce, to identify the preference patterns and talent segments for total rewards. Many organizations begin such applications by focusing on a particular group of employees, where there is obviously high potential value for innovative reward policies. Such experiments often occur where the organization is having a hard time attracting new people or losing valued players. The idea is to try it out, understanding that it might not work, but focus on the learning, rather than setting up failure by claiming that the new approach will certainly produce a better outcome.

Use surprises as question marks. Surprises are often dismissed as simple anomalies, random effects that don’t signify anything significant. However, surprises can foster unlearning when they are reframed as opportunities to question the existing paradigms. Starbuck (1996) notes an episode in World War I in which the prevailing mind-set was that tanks moved too slowly to support infantry, but when a tank commander surprisingly charged a German enemy line with three tanks and routed the enemy and destroyed their cannon, General Patton used the episode to rethink the value of tanks as advance reconnaissance. For HR leaders, the moral of the story is not to hide or avoid surprises, but use them as valuable tools. For example, leaders are often surprised to find that younger workers and managers simply do not want to pursue career advancement with the same dogged determination and sacrifice of time with family that older leaders did. One can frame this simply as an anomaly of aging, a short-run result of young people who just haven’t matured enough to understand the value of hard work. Or, one can suggest that if this pattern continues, the entire basis on which
many career development and succession programs are built may be threatened. Seen in this way, it is natural to consider how alternative “paths” might be identified using logistics and planning tools, or how to better get ahead of changes in talent segment preferences using conjoint analysis or preference mapping as done with product consumers.

Take dissents and warnings seriously. In an era where innovation has been elevated to a mantra, and some of the seemingly craziest ideas have disrupted long-standing principles about markets, customers and economic progress, it hardly seems necessary to mention the danger of hastily rejecting outwardly weird dissents. Unlearning suggests that such dissents should at first be seen as reminders that existing approaches might be wrong or obsolete. Starbuck (1996) goes as far as to suggest that organizations take all dissents and warnings as at least partially valid, look for evidence about the odds that they might be correct, evaluate the potential consequences if the dissent turns out to be right, and find ways to test those dissents that have the greatest capacity for significant costs or benefits. Organization leaders need look no further than the economic turmoil of 2008 and 2009. There are many examples of individuals calling attention to the dangers of collateralized debt, even referring to such instruments as the “weapons of mass destruction” in the financial system. Yet, many warnings went unheeded because the sort of financial meltdown these ideas predicted had not happened in recent memory. Scenario analysis often requires decision makers to break out of typical decision patterns and consider strange possibilities. Evidence about HR can be connected to such scenario analysis by
retooling the workforce questions as an application of portfolio theory. The question might be framed as, “How prepared would our talent be for all the different future scenarios that might occur, and how can we hedge our bets?”

Portfolio theory is a systematic way to do precisely what Starbuck (1996) recommends, carefully considering the likelihood, costs and benefits of unusual or novel situations. The financial crisis may have provided leaders with an unprecedented opportunity to use disruptive ideas as a way to encourage evidence-based talent planning, even for unlikely scenarios. When seen within the framework of financial portfolio theory, the payoffs to such evidence and research are much clearer.

Seen in this context, evidence regarding traits that affect performance more generally (intelligence, personality, etc.) versus those that are more situation-specific (skills, experience, emotions), can be framed as “assets” that are likely to be useful in any future situation, versus those that are more useful only in specific future scenarios. Such evidence now becomes similar to what an investment analyst would gather to evaluate different asset classes in constructing a portfolio. Reframing talent scenario analysis within portfolio theory logic is also an opportunity to use risk optimization as a framework for meta-cognition, identifying potential biases regarding assumptions about human capital and its adaptability.

Contrary beliefs may not necessarily be contradictions. Sometimes, what appear to be clear contradictions may actually reflect underlying consistencies, if we can unlearn our old way of thinking and make room for a new one. Is it
possible that a work element can be highly important, yet improving performance in that area does not produce significant returns? This seems to be a fundamental disagreement, until we unlearn the tendency to think of things that are important as necessarily pivotal. In fact, this is true about many aspects of work, including performance of commercial pilots. Being at the (very high) standard of acceptable performance is the key, and there is not much difference between the best and the moderate performer, precisely because such positions are too important to allow for performance risk. Understanding the difference between a work element that is important and not pivotal, and other work elements that are pivotal, may help better frame evidence regarding performance management and performance improvement. For example, it makes little sense to encourage strong performance differentiation for work elements that offer little difference between “good enough” and “great.” The literature on utility analysis in selection, training and compensation (Cascio & Boudreau, 2011; Sturman, et al., 2003) would likely make more sense to managers when couched in the more familiar terms of performance tolerances. When beliefs seem contrary, but are held strongly by reliable and credible sources, it’s a clue that perhaps we need to unlearn old models to resolve the controversy.

What a stranger thinks to be strange may be a good question. This means that “strangers” to the established way of thinking will often ask what appear to be naïve questions, or pose perspectives that seem less “expert” than those familiar with the dominant way of thinking. Yet, when the “strange” thoughts of a stranger are given some credence, what was naïve may seem profound.
Starbuck (1996) notes the example of the Sony Walkman, which originated as a failed stereo tape recorder, because the tape recorder division could fit stereo playback components but not stereo recording components into the unit. The received wisdom was that if it could not record, and it required an external speaker, it could not be a successful product. Sony’s founder, Masaru Ibuka, while touring the factories, realized that by attaching headphones to the unit, there would be no need for speakers, and the unit could play back recorded music for one person. The Sony Walkman was born.

The fundamental theme of “Retooling HR” is to create opportunities for “strangers” to share their ideas. Well-understood by management disciplines and functions provide valuable logical models to reframe evidence about work behavior. There are smart, well-meaning, and motivated experts in HR and in functions like operations, supply-chain, finance and marketing. As we’ve seen, some things in HR will seem very strange to an engineer, or to a financial risk expert, or to a supply-chain analyst. They may well wonder why human resources maintains rules such as “minimize talent shortages everywhere,” “top performers in every role” or “four successors for every leadership position,” when such rules so clearly run counter to standard logic models in the other functional areas. Leaders within and outside of HR need to listen more carefully to what appears strange to each of them, and find new insights by reconciling their perspectives.

One specific implication of this idea is that researchers and practitioners in HR seek out their counterparts in other disciplines, in reconciliation conferences,
to share their respective professional logical models and dilemmas. Rather than defending their respective frameworks, the idea would be to invite criticism, and to have each side articulate things that seem “strange” to them. Indeed, drawing upon the discussion of team mental models earlier, the techniques developed to measure, articulate and resolve team mental models may well prove quite valuable as a means to study such reconciliation encounters in the field. The result may be more widely shared logic frameworks that integrate HR with diverse disciplines, and a much deeper understanding of what characteristics of the logic models are easy or difficult to reconcile.

The philosopher, George Hegel, advocated dialectical reasoning, which involves taking one proposition, stating its converse, and then considering whether both might be valid (Miller, 1969). The original proposition is called the thesis, the converse is the antithesis, and the union of the two is called a synthesis. Such reasoning contributes to unlearning, by questioning the theses that we come to accept out of habit, and looking for novel syntheses with their antithesis. For example, the thesis that “better job performance is always valuable” may seem unquestionable, until one considers the antithesis “better job performance can be less valuable, if good enough is as valuable as great performance.” The same thing shows up with the thesis “more valid employee selection is good,” and the antithesis that “more valid employee selection is bad.” The synthesis is that valid selection adds value only under certain conditions in the talent acquisition supply chain, and it is considering the rest of the supply chain that shows us when
it is worth the investment, and when it is better to forego greater validity to maximize other supply-chain elements.

The thesis “employee turnover is bad” and its antithesis “employee turnover is good,” finds synthesis in an approach to turnover more clearly based on optimizing the inventory of employees, the costs of that inventory, and actually planning for strategic employee shortages and surpluses. The thesis that “Developing talent that may not suit future conditions is bad,” matches with the antithesis, “developing talent that may not suit future conditions is good.” The synthesis is that it may be best to develop talent that is both suited and unsuited to different future conditions, because that’s the only way to take advantage of the power of diversification to optimize risk and return.

Focus Where it Matters … the A-B-C’s of Setting Talent Priorities

Organization leaders can be more systematic in setting HR priorities, and those priorities provide clues to using evidence most productively. There is a concept in inventory management called ABC Analysis. Simply put, some types of inventory deserve much greater attention and control than others. For example, “ABC analysis consists of separating the inventory items into three groupings, according to their annual cost volume usage (unit cost X annual usage). These groups are: A, items having a high dollar usage; B, items having an intermediate dollar usage; and C, items having a low dollar usage. While percentages vary from firm to firm, it’s common to find a small percentage of the items accounting for a large percentage of the annual cost volume usage. ABC analysis provides a tool for identifying
those items that will make the largest impact on the firm’s overall inventory cost performance when improved inventory control procedures are implemented. ABC analysis helps focus management attention on what is really important.” (Volimann, Berry, Whybark and Jacobs, 2004).

Leaders must make choices, and evidence should be framed within those choices. Improved performance is not equally vital or valuable everywhere. Attention to employee shortages and surpluses is not equally vital in every position. Certain career and development paths may be much more vital to future workforce preparedness than others. Certain future scenarios hold much greater implications for talent investments than others.

When HR leaders overlook this principle, they find themselves recommending blanket policies such as reduced turnover, increased engagement, or enhanced innovation, across the board, in a kind of “peanut butter” approach to HR, spreading a good thing equally all across the organization. Those outside of HR, who are familiar with even the rudiments of ABC analysis, will rightly see that this is not how other management disciplines work. Their discomfort with a blanket HR policy may be deeply rooted in their experience of ABC analysis applied to inventory or other areas. A first step in retooling may be simply to start engaging the conversation as to which elements of talent strategy and investments are probably “A,” “B,” or “C.”

**Innovation, Serious Play and Rapid Prototyping**

How many individuals would associate the words “innovation,” “play” and “rapid prototyping” with human resource management? Not many. Yet, retooling HR
requires just such perspectives. The frameworks suggested here embody a paradox: The business models have been around for decades, and have a large and well-developed array of specifications and logical rules. Applying them to the arena of HR is largely new, and certainly not widely accepted. These approaches are foreign to most organization leaders, and today’s HR system specifications are seldom compatible with the logical frameworks described here. How will one measure the “holding costs” of an employee “inventory?” How will one map the paths through the career pipeline, and assign values to them that allow optimizing the flow of talent? How can we measure the performance-value curves for different roles, jobs and competencies, when our existing systems rely so heavily on job descriptions?

Of course, these are all legitimate concerns, but in some ways they fail to recognize the innovation path toward the retooled HR of the future. In most disciplines it was the logic that preceded the systems and the measurement. Today’s well-developed supply-chain, market research, finance and operations management systems did not emerge first, and then become infused with logical models like portfolio theory, linear programming and conjoint analysis. Rather, the concepts of risk-return, logistics optimization, and market segmentation came first. Those concepts were tested and applied, usually imperfectly, using existing systems and data, and a good deal of speculation and estimation. However, as the power of the logic became apparent, it also revealed how to advance the systems and measures to support the new tools.
This brings us back to “innovation,” “play” and “rapid prototyping.” Michael Schrage’s book Serious Play (Schrage, 2000), chronicling how companies innovate successfully, makes the point well.

“The essence of serious play is the challenge and thrill of confronting uncertainties. Whether uncertainties are obstacles or allies depends on how you play. The challenge of converting uncertainty into manageable risks or opportunities explains why serious play is often the most rational behavior for innovators. Serious play is about improvising with the unanticipated in ways that create new value. Any tools, technologies, techniques or toys that let people improve how they play seriously with uncertainty is guaranteed to improve the quality of innovation.” (Schrage, 2000).

Traditional HR tends to be “specification-driven” meaning that it operates from a desire to give careful consideration to all the necessary elements, develop a specification that is well-vetted and seems to encompass all the needs of the various clients, and the implement the system based on that specification. As Schrage points out, this is in stark contrast to a “prototype-driven” approach, where the goal is to get as quickly to a working, and imperfect, prototype, that clients can see and use. It means accepting the inevitable result that clients will probably reject and wish to modify the prototype in ways that they themselves did not anticipate when they provided the original specifications. In a specification-driven approach, this is a failure -- the client rejected the carefully-designed system. In a prototype-driven approach, this is a success -- the prototype
facilitated a quicker and much deeper understanding of the clients’ requirements, and can now be modified more accurately to fit them.

Schrage notes how powerful the idea of rapid-prototyping can be for innovation, and how important it is to understand the distinction between pursuing specifications as if they were fixed, to pursuing specifications for the purpose of developing prototypes whose rejection is an expected part of the process. For example, (Schrage, 2000) notes the common problem that “at least one-quarter of internal software-development initiatives are cancelled outright and written off as total losses.” He suggests this is caused by the tendency for software development groups to follow procedures eerily similar to today’s HR organizations: The developers, in a sincere effort to be responsive, perform extensive requirements analysis for weeks, results are circulated for approval, modifications are made, and clients are required to sign off on the requirements analysis before work is started. Then, the development team takes weeks to construct a prototype designed to meet all the specifications and presents it to the client expecting to be praised for the careful design, but the client says “it’s almost right, but now that we see it, we realize we need something different.” The design team is disappointed, the client is surprised that the design team doesn’t welcome the feedback, and far more resources have been spent than needed. Schrage suggests an alternative approach in which the goal is to identify the few most important initial design criteria and create a “quick and dirty” prototype specifically designed to be rejected. Such prototypes are treated as vehicles for further conversation and development (Schrage, 2000). This is the
essence of the contrast between being “specification-driven” and “prototype-driven.”

This goes directly to the evidence-based management pillar of stakeholder concerns, and applies it to evidence-based HR. Too often, HR professionals see their role as delivering programs and services that are fully developed and finished. Evidence is seen as something one gathers prior to design and implementation, in an effort to make sure the final product is satisfactory to as many stakeholders as possible, and as empirically and logically defensible as possible. Yet, when HR “products” are reframed within the accepted logic of software or product development, it is apparent that often the right approach will be actually to strive for fast but imperfect, and use field evidence to modify accordingly. Theresa Welbourne coined the term “Fast HR” to express this idea (Welbourne, 2011). Fast HR reframes HR program development using logical principles from the discipline of “extreme programming” (Lindstrom & Jeffries, 2004), which is an accepted logical framework in the discipline of information systems and software development.

Embedding HR and organizational behavior evidence within trusted and familiar business logic will require recognizing that imperfection is not a reason to wait. Yes, the evolution described here is significant, but it also has the potential to create significantly greater common ground between HR leaders and their clients and counterparts. It has the advantage of starting with logical frameworks that are already familiar to organization leaders, and thus don’t require them to learn an entirely new language. In many cases the new tools can
be built initially on existing measurements and data systems, even if they require some additional speculation or simulation.

Thus, the conditions for rapid-prototyping are abundant, but organizational leaders will need to adopt a very “non-HR” mindset to engage the process. HR has made great progress, and created immense value, by becoming very good at ensuring compliance with vital rules, avoiding risk, and delivering programs and services only after very careful design and analysis. Yet, the rest of the organizational world is shifting toward a fast-changing environment that requires more attention to innovation, and rapid response. By starting with tools that already have proven business value, the necessary rapid-prototyping for the retooled HR is partially underway. It is much easier for leaders outside of HR to envision new HR tools, when they can use as their template the tools they already use quite easily. HR leaders must resist the temptation to impose their own logical frameworks, and embrace the chance to connect to tools that already exist. So, HR leaders should invite an open-minded counterpart to “play” with one of the ideas in this Handbook’s chapters: “What if we thought of turnover as inventory depletion. How would that change the way we look at it?” “What if we mapped the flow of employees through our organization and got those engineers that do pipeline and logistics analysis to help us understand them?” “What if we drew a few performance-value curves for some of the jobs where performance issues seem to be most troublesome?” This is the kind of “serious play” that has revolutionized management disciplines in the past, and has the potential to do so for HR.
Implications for Scholarly Research

This chapter has noted many potential research questions about how evidence is used, the development of shared mental models, and how more traditional business concepts such as risk and performance tolerances apply to HR. Generally, future research might use retooled frameworks to guide how evidence about HR is gathered, and it might study mental models to better understand how evidence is and might better be used.

Regarding how evidence is gathered, the analogies described in chapter may suggest how to extend or deepen research in areas such as performance management, turnover, leadership development and employment arrangements. For example, approaching performance management research within the framework of performance-tolerance analysis and ROIP suggests that techniques from engineering and product design might be used to map performance curves (Pritchard & Roth, 1991), rather than assuming a strictly linear relationship between performance changes and organizational value. Can the tools that engineers use to estimate performance curves for product features be applied to assist leaders in mapping such relationships with work performance?

The metaphor of inventory and supply-chain optimization applied to turnover and employee staffing suggests that future research in these areas might draw upon data about costs and risks more fully. While utility analysis models incorporate these variables (see Cascio & Boudreau, 2011), research on turnover and staffing often focuses on predicting turnover itself or enhancing the validity of staffing systems. When seen through an optimization lens, research could focus on the
possibility that turnover may be higher (lower) in some situations precisely because employees and leaders sense or understand that this is more optimal, based on the costs and benefits they perceive. Similarly, research on staffing systems might incorporate operations concepts such as the return on better quality control, to explain why the optimal validity may be lower or higher in some situations, rather than focusing only on how to enhance validity. Approaching questions about customizing employment arrangements through the lens of consumer behavior opens the research to tools from marketing to study such issues as anticipated emotions (Patrick, MacInnis & Park, 2007).

Regarding the second issue, retooling HR research suggests the possibility of better understanding the mental models that govern how evidence is used. Earlier, this chapter described how theories and techniques from the field of team shared mental models (SMM’s) might be used to better understand the mental models used by HR leaders and their counterparts, as a special case of team effectiveness. In addition, mapping the mental models that HR leaders and others bring to questions of motivation, learning, engagement and others may explain the patterns of how evidence is used or not used.

For example, when studying how leaders use performance management systems, the engineering concept that performance-value functions may non-linear might explain why some managers welcome, and others resist, systems that encourage significant differentiation in performance ratings. Where performance differences have little significance, it is quite logical for a leader to resist investing time and effort in mapping those differences, despite the fact that such
mapping creates a more useful criterion for selection, training, etc. Similarly, using a supply-chain or inventory metaphor to understand employee staffing may help explain why leaders are eager to better understand evidence regarding selection validity or turnover in some situations but not others. Such evidence is less useful where the return or risk-reduction of better selection or reduced turnover is lower, but to study that question requires a framework for measuring how those potential returns are perceived by different constituents.

In essence, it may be quite logical for decision makers to forego the effort to understand and incorporate better evidence in some situations. Assuming that such behavior is always a mistake or limitation may limit our understanding of how evidence is actually used. Finally, bringing accepted management logic models to bear on HR issues may reveal ways to “hook” evidence into frameworks that leaders already understand, and thus better articulate its significance, as the examples in this chapter have shown. Future research might study the difference in evidence use when it is presented in a traditional HR-centric way, versus when it is embedded in mental models that leaders already accept from other disciplines.

**Implications for Business Education and Management Practice**

An overarching theme of retooling HR practice and research is the value of creating cross-discipline connections. The premise is that greater integration between the explicit and implicit logic models of disciplines outside and inside HR and organization behavior will lead to greater insight, easier use of untapped evidence, better decisions about employment and management, and ultimately
more successful and humane organizations. For HR practitioners, the implication is to learn the logic models of the organization and apply them to HR issues, in addition to the more traditional admonishment to learn how human capital might affect outcomes that are measured using those models. It means that HR education might benefit from using logic models from other disciplines to reframe common topics such as total rewards, staffing, turnover, learning and workforce planning. This seems particularly important when HR education is targeted to future leaders who will not be HR professionals, because it may enhance their understanding and motivation to learn these topics. However, it is also important for future HR professionals to understand how to retool these HR topics through better-accepted business lenses, so that they can deepen their understanding about those processes and better engage with their non-HR counterparts as practitioners.

In my own MBA classes on HR, I increasingly introduce topics such as rewards, turnover, staffing and workforce planning by having my MBA’s first recall their logic models from consumer behavior, inventory, supply chain and portfolio risk, and then develop analogies to these HR issues. I find that this engages them to better understand the importance of HR decisions, but also to ask deeper and more sophisticated questions.

Ultimately, one might envision collaborative HR classes that would actually engage instructors or professionals who are experts in business models from other disciplines, work with them to translate those models for application to vital HR issues, and then challenge students to apply the analysis tools and metrics from those well-established disciplines to common HR decisions they
must make as future leaders. The objective is not to create technical HR experts, but to create savvy collaborators with future HR professionals.
References

Answers.com, Mental Model. Retrieved October 25, 2010 from
http://www.answers.com/topic/mental-model#cite_note-0

decision-making performance with collaborative modeling. Team
Performance Management, 11(1/2), 40-50.

Retrieved October 25, 2010, from
http://www.businessweek.com/magazine/content/09_12/b4124046224092.htm?chan= top+news_top+news+index+-+temp_top+story

Bersin, J. (2009). The career factbook for HR and learning professionals. San

design in management science. Management Science, 50(11), 1463–1476.

Society for Human Resource Management

Publishing.


in expert decision making teams. In N. J. Castellan Jr. (Ed.), Current
issues in individual and group decision making (pp. 221-246). Mahwah, NJ: Erlbaum.


working paper version of the article is available at

http://pages.stern.nyu.edu/~wstarbuc/unlearn.html


