

## Conclusion

The evolution of complex societies [is among]...the deepest puzzles of the social sciences.  
Richerson and Boyd (1999, p. 253)

It would seem that the elaborate organization of a honeybee colony is an *incidental* consequence of each individual's efforts to maximize its own genetic success.  
Williams (1996, p. 50; emphasis added)

Human resource interventions are designed by humans, implemented by humans, and exist in human systems. As such, they reflect human propensities and human beliefs about human nature and social systems; they are also subject to the uncertainties, self-interests, and conflicts endemic to complex social systems. Unfortunately, many human resource interventions developed throughout the twentieth century reflect an unrealistic view of human nature and social systems. They reflect the erroneous view that humans are passive receptacles of culture and that, therefore, changing cultural inputs can readily change human behavior. They reflect the erroneous view that humans come prepackaged with levels of master traits and that, therefore, matching people with jobs can readily enhance organizational efficiency. They reflect the erroneous view that organizations operate like machines and that, therefore, deliberate social engineering will lead to intended outcomes. And they reflect the erroneous view that human resource interventions operate independently of context and of the personal interests of people using them and that, therefore, they can be surgically installed in any organization. These erroneous beliefs that have in large measure been responsible for the unimpressive record of applied social science in general and of human resource interventions in particular.

I have argued that an evolutionary perspective offers a more realistic set of assumptions about human nature and about social systems. The evolutionary perspective provides a realistic basis for designing interventions, and it provides a powerful

theoretical framework understanding people's preferences for particular human resource interventions. People come into the world endowed with psychological mechanisms that are the products of thousands of years of evolution. These mechanisms predispose humans to behave adaptively for the most part in dealing with features of their environment. Simply changing cultural inputs will not inevitably change the responses activated by psychological mechanisms. People are predisposed to respond to other people and to information about other people in ways that enhance their self-interest. Thus, people will continue to use human resource interventions that seem useful to their interests and they will be reluctant to use interventions that do not. Hence, the widespread use in most businesses of the interview, letters of recommendation, and work sample tests and the relatively low use of paper-and-pencil tests. Similarly, interventions that are compatible with psychological mechanisms are more likely to work than those that are not. Hence, the success of phonics for teaching reading, drill-and-practice for teaching math skills, and apprenticeships for training skilled craftsmen and professionals; hence, the failure of whole language as a method of teaching reading, the failure of calculators to improve children's math skills, and the failure of the web to educate students and professionals.

An evolutionary perspective also provides a powerful heuristic for understanding how human resource interventions become incorporated into organizational routines, how they operate within organizations, and why they are rejected. Socio-cultural evolution offers an eminently more sensible way of thinking about the adoption and use of interventions than is mechanical design. As Donald Campbell cogently argued over a

quarter of a century ago, the logic of natural selection – variation, selection, and retention – is as applicable to social as biological phenomena.

Many of the ideas fundamental to the evolutionary perspective – self-interest, status, dominance hierarchies, social exchange, interdependence, conflict, adaptations, environmental demands, functions, and unanticipated consequences – exist in other theories that populate the landscape of social and behavioral sciences. Yet these ideas are scattered among disparate theories and mini-theories, with little sense of coherence (Buss, 1995; Scott, 1998). The evolutionary perspective provides a unifying logic that incorporates many disparate ideas within the social and organizational sciences. It provides a parsimonious approach – natural selection – for understanding diverse and complex phenomena. Moreover, its underpinnings are rooted in evolutionary biology, which, over the past 150 years, has been a principal scientific springboard for fundamental discoveries about the nature of life and behavior. On the other hand, much of the social science theory and research over the past 150 years has no unifying theoretical anchor, except perhaps the blank slate.

The evolutionary perspective on human resource management uses general principles from evolutionary psychology and socio-cultural evolution as frameworks for thinking about human nature and organizations and for guidance in the development and use of interventions. Yet because of its sensitivity to variation, context, and complexity, it does not propose universal applications, and it emphasizes the importance of local knowledge. At the level of the individual, research in evolutionary psychology can provide guidance on learning, decision processes, and preferences for particular categories of stimuli and situations, as well as an understanding of *why* these processes

and preferences exist. This is helpful for understanding people's reactions to extant interventions and for anticipating general responses to new ones. Psychological mechanisms limit the range of appeal of interventions. People will prefer interventions that produce immediate, obvious, and concrete results. They will prefer interventions that use face-to-face or narrative methods to communicate information about people over methods that use statistical information to communicate information about people. People will consciously or unconsciously prefer interventions that, first and foremost, appear to advance their self-interest.

Psychological mechanisms constrain possibilities. The closer that the features of interventions are linked with human adaptations, the more likely that interventions will produce reasonably adaptive results. People will learn skills based on primary abilities more quickly than skills based on secondary abilities. On the other hand, humans have many other characteristics beyond basic adaptations, and many of them are assembled within individuals randomly—through sexual reproduction's shuffling of genes, through exposure to different environments, and through the unique experiences that people encounter while growing up. Human variability expands possibilities.

So too does the fact that interventions operate in complex social systems, with their attendant conflicts, disparate interests, loose connections, and long and multifaceted causal chains. It also reduces our capacity to predict and control behavior. This is bad news for managers who are looking for interventions that will produce specific, intended effects. It is also bad news for social scientists who believe that they can develop such interventions and for those who are laboring under the delusion that the interventions they already developed work like that. And it is bad news for consultants who want to

sell neat solutions and quick fixes. The evolutionary perspective's implications at the organizational level are more general and require a greater sense of humility than the implications of the mechanical designers. I have stressed three themes at the organizational level: variability, functional wisdom, and distributed intelligence.

Adequate variation in interventions, practices, ideas, and people are an organization's best insurance against the vagaries of the future. A functional wisdom is often embedded in traditional practices that have stood the test of time. Traditional recipes for living have something to tell us. Distributed intelligence widely guided only by a general framework is a considerably better arrangement for social systems than those based on grand designs. We know that free markets work better than planned economies, yet we cannot know what specific goods and services will emerge. Similarly, organizations that distribute intelligence widely and give people the freedom to use their ingenuity will be more adaptive than those that orchestrate every detail from a master plan, yet we cannot know precisely what adaptive routines will emerge.

One difficult conceptual issue that requires considerably more work is the duet of evolutionary psychology and socio-cultural evolution. Organizations tend to incorporate practices that are functional. These practices exist independently of the particular people carry them out. On the other hand, people usually behave in their self-interest, and choices based on self-interest derive from psychological mechanisms. How are choices that are functional for individuals connected to practices that are functional for organizations? Are organizational practices the incidental results of people pursuing their self-interest or do they have an organizational reality of their own? My hunch is that the former is the case. Precisely how much of a role self-interest plays remains debatable,

but that it plays a role is not debatable. It is unfortunate that self-interest has not been given its due in the human resource literature.

People respond to interventions based on conscious and unconscious self-interest, and they use interventions based on self-interest. We can no longer afford to maintain the fiction that human resource interventions operate independently of self-interest, operating only for the good of “the organization.” How to deal with the role of self-interest in human resource interventions is another question. Some answers are more satisfactory than others. One approach, common among many mechanical designers, is to ignore self-interest; this, of course, is absurd. Another approach is to assume that the anointed know what everyone’s best interest is and to allow the anointed to devise structures that severely curtail other people’s choices (inevitably, the options available to the anointed are the least constrained). This approach is authoritarian.

An evolutionary perspective on human resource interventions acknowledges that self-interest operates in human resource interventions, just as it does in other areas of human affairs. Human resource interventions are more likely to be effective (1) when they leverage the power of self-interest, (2) when the role of self-interest is transparent, and (3) when they contain systems of checks and balances to curtail self-interest’s excesses. It is particularly important to acknowledge the role of self-interest when advising or otherwise dealing with leaders of organizations. Leaders, like everyone else, are motivated by self-interest. When leaders push a program that they claim will “benefit the organization,” one must always ask *how the program benefits the leader*. It is often more certain that self-interest is lurking just beneath the surface of a leader’s pet program than it is that the program will produce its intended effect or that its goals are

widely shared or understood. I am not saying that managers and leaders do not necessarily have insights that will help an organization adapt, survive, and even prosper. Sometimes they do. However, failing to acknowledge the role of self-interest, particularly on the part of leaders and others who wield considerable power, increases the chances that unbridled self-interest will be destructive. Too often leaders attract coterie of sycophants who are unwilling or unable to point out that the primary beneficiaries of a leader's pet programs are the leader and the leader's allies. Interventions that build in transparency and checks and balances are an antidote. Interventions with these characteristics also help to demystify "organizational" interests and goals. They help to show that what passes for organizational goals are in fact the goals of a person or a group of people. I cringe every time I read a passage referring to an *organization's* interests or virtues or pathologies. Sociologists and legal scholars can make a case that organizations have interests. That may be. However, I cringe because so many scholars and lay persons can glibly refer to an organization's interests (or pathologies or virtues) without acknowledging that they stem from decisions and actions of *individuals* and that they are entwined with individual interests. A common thread running through much of the work in industrial/organizational psychology and political science is the attempt to align interests. An evolutionary perspective suggests that you can temporarily align some interests some of the time, but you can never align all interests all of the time. Conflicting interests are the order of the day. Interventions that explicitly acknowledge conflicts of interest have the best chance – however haltingly – of alleviating sufferings, making incremental improvements in human well-being, and of improving organizational effectiveness.

Conflicting interests, variation, and change are inevitable in social systems. Thus, it is more appropriate to conceptualize human resource interventions as activities that are part of a process of *continual maintenance* rather than as solutions or best ways to perform a human resource function. As anyone who has ever owned a house knows, if it's not one thing it's another. Routine maintenance is the key to keeping the house functioning. Storms, small animals, wear and tear, and changes in fashion keep homeowners continually tinkering and repairing. A house is never repaired once and for all. Natural selection, too, is a process of continuous maintenance. Environmental change causes continual adaptive pressures; variations continually arise which provide the raw material for adaptations; and selective retention continually culls unhelpful variations and retains helpful ones. In the same vein, organizations never arrive at an ideal stasis; there is only the process of maintenance throughout the ups and downs of the inexorable life cycle. As any student of history knows, change is constant and all things eventually pass on. Vigilant maintenance and luck can improve the odds, providing a fighting chance to slow down the inevitable.

Because human biology evolves considerably more slowly than culture, some have argued that evolutionary mismatch theory (Crawford, 1992), the inquiry into the correspondence between present conditions and those in which humans evolved, can provide guidance for improving organizations and human well-being. The basic implication of mismatch theory are to align modern social structures more closely with structures common during the EEA and to develop structures that are compatible with evolved psychological mechanisms. Nicholson (1997) argues that organizations will operate more effectively and people will be happier in organizations if managers create

structures that resemble the social conditions under which humans evolved. He recommends smaller work groups and more informal interaction. In a similar vein, Buss (2000) argues that mismatches are a cause of human unhappiness in the modern world—mismatches between modern and ancestral environments. He recommends efforts to make the modern environment more compatible with psychological mechanisms that produce happiness—efforts such as strengthening the family, marriage, and deep friendships. He also recommends efforts to keep in check the psychological mechanisms that escalate competition and conflict. Mismatch theory offers a promising framework for interventions, but its promise will always be limited because the genie of culture is out of the bottle. Culture provides a huge array of evolutionarily novel symbols, materials, and structures that stimulate psychological mechanisms. The interaction of culture with ancient psychological mechanisms produces an escalation of novel symbols and materials (Colarelli, 2000). The appeal of cultural symbols and artifacts to ancient mechanisms can be so powerful that they override efforts to counteract their deleterious effects. Witness the appeal of pornography, psychoactive drugs, celebrities, and junk food—cultural creations that derive their appeal from ancient mechanisms (Barkow, 1992; Nesse & Berridge, 1997). Certainly increased knowledge of psychological mechanisms and the consequences of novel variations can ameliorate deleterious effects. Yet, variation and change are inevitable and we cannot turn back the clock. Just as some new variations cause problems, others variations provide opportunities and new methods to address problems. We cannot stop the inexorable meandering of evolution. We can, however, tinker and decrease suffering here and there. Increased knowledge is helpful, but it cannot stop change and life cycles.

An evolutionary perspective does not provide human resource practitioners with the comfort of a best way or with the illusion of certainty. This is not its failing. It is its primary strength. Human resource management has for too long been in under the spell of the mechanical design perspective, but it has been unable to meet expectations. By working with a more realistic set of assumptions, the evolutionary perspective is more likely to meet expectations, but it requires more modest expectations. I have suggested some evolutionary-based interventions that will help organizations deal more effectively with selection and training. However, more than arguing for specific techniques, I have argued for a way of thinking, a way of looking at organizations and human resource interventions. By shunning best ways and intended effects, it avoids the hubris of the mechanical design perspective. The evolutionary perspective settles, instead, for improving adaptive processes, maintenance, and limited improvement, ever mindful of context and conflict.

### References, Conclusion

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