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Revisiting the Past and Selecting for the Future: An Introduction to Handbook of Organizational Performance: Foundations and Advances

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ABSTRACT

Both business and behavior can be understood through the lens of variation and selection, with adaptive approaches prospering and other approaches perishing. The *Handbook of Organizational Performance: Foundations and Advances* series seeks to lay out the groundwork and direction for our field to prosper, as understood by many expert contributors in the field of organizational behavior management. Other worthwhile directions beyond the series are also noted, all guided by the notion that a science of behavior is not only possible, but also a critical missing component from the typical understanding of how to best operate a business so that it survives.

Behavior analysis, and by extension organizational behavior management (OBM), has been guided by a selectionist paradigm since the conceptual basis for B. F. Skinner's science of behavior was first developed (Palmer & Donahoe, 1992; Skinner, 1945). Behavior is a product of selection contingencies operating at three levels (Skinner, 1981, 1987, 1990): biological (natural selection of species), psychological (contingencies of reinforcement responsible for behavior of individuals), and anthropological (evolution of contingencies that maintain social environments). C. M. Johnson et al. (2001) proposed an analogous paradigm for organizational performance, suggesting three levels of variation and selection: economics (natural selection of organizations that survive competition in the marketplace), behavior analysis (contingencies of reinforcement for individual and group behavior within and between organizational settings), and social environments (organizational culture, verbal behavior, laws, workplace rules, policies and organizational practices). Two decades later there appears little reason to dismiss this evolutionary model of organizational performance. Organizations, behaviors, and social practices change over time. The adaptive ones flourish or at least maintain; those that do not evolve in changing environments undergo

extinction. Although the scale of behavior is clearly vast and the units of analysis change across disciplines, variation and selection remains a constant shaping process across the levels. OBM often has needed to straddle the fence between multiple levels, looking at both individual/performer and collective/organizational levels (or contingencies and metacontingencies if one prefers).

This current series is an evolution of the *Handbook of Organizational Performance: Behavior Analysis and Management* (C. M. Johnson et al., 2001), which itself was a descendant of the two original OBM handbooks published in 1982 (Frederiksen, 1982; O'Brien et al., 1982). After 40 years of progress, OBM has grown large enough to permit tremendous variability. In fact, this was one of the greatest challenges as the editors sought to apply their own selection pressures to the contributions and topics (i.e., deciding what to include from the many possibilities, constrained by practical limitations). Despite the extensive contributions of many authors, many topics will regrettably have to be left untouched. Such a range that is incorporated in the handbook would likely be pleasing to Skinner and other pioneers in behavior analysis, who always saw our science as broad and far-reaching; not a science to be applied to just a handful of demographics or concerns (Skinner, 1953). We are honored by the contributors willing to share their hard-earned expertise and the input of the editors, associate editors, editorial review board members, and guest reviewers of the *Journal of Organizational Behavior Management* (JOBM).

To capture the aims of our many contributors and to ensure a continuity across series, we settled on the title of *Handbook of Organizational Performance: Foundations and Advances*. The subtitle is intended to emphasize the need to look both forward and backward. Foundations tell us where we originated and provide direction as we continue forward. In fact, it is traditional for OBM handbook introductions to summarize how the field came to be (Houmanfar et al., 2021; C. M. Johnson et al., 2001; Wine & Pritchard, 2018). Such an approach orients readers and honors the architects. We will not dwell on such points here for fear of stealing the thunder from contributions to the series, except to note that several will lay the groundwork with their coverage of the history of OBM pioneers, our methodology, our terminology (and thus our concepts and principles), and various motivational and diagnostic tools. Of course, our foundations include the wealth of literature built up over 40+ years, informing topics such as training, goal setting, feedback, safety, health, etc.

Advances tell us about the new territory we have recently entered and territory into which we should be venturing. Looking forward is always fraught with difficulties, as legions of past amateur futurists can surely attest. Beyond the many suggestions mentioned by our contributors, there remain a few threads that have stuck out to us as worth pulling.

One area of tremendous growth potential is providing support for other behavior analysts as they forge new organizational ventures. The most obvious candidate is behavior analysts providing professional services related to Autism Spectrum Disorder. As these services have expanded, organizations have emerged with all the employee-related needs of any other organization. Most of the behavior analysts managing such organizations lack formal training in OBM (or perhaps have attended only a workshop or two). As such, collaborations with the human service industry would be wise, or else they will surely reinvent the OBM wheel without us and our base of empirical findings.

It would help broaden the scope and mission of our field if we could find ways to contribute to the broader culture besides traditional management initiatives. How might OBM support union concerns? How can we contribute to diversity of the workforce or the development of professional skills of employees? How can we prevent layoffs or support former employees transitioning between jobs?

While on the topic of unemployment, the nature of work demands will undoubtedly change and therefore we may not be able to rely on the dependent measures of years gone by. For example, increasing automation will eliminate many jobs and types of work, but can rise to new jobs and emphases (Asimov, 1991; D. A. Johnson & Akpapuna, 2018). There will likely be a greater need for behavior analysts to understand creativity and innovation (Bradley & Johnson, in press). Quoting Jack Welch, former chief executive officer of General Electric, in his annual report, Andersen (2020) described how organizations change or die and new forms of work develop.

> "When the rate of change inside an institution becomes slower than the rate of change outside, the end is in sight. The only question is when. Learning to love change is an unnatural act in any century-old institution" (Andersen, 2020, pp. 342-343).

OBM professionals will need to continually refine their verbal skills to become more proficient in marketing and outreach. No doubt this will require us to better understand our audiences, not just our products and services, no matter how proud we may be of the processes we have developed. We need to understand and exhibit persuasive behaviors at the performer level, organizational level, and the broad cultural level.

When mapping out our plans for moving forward, it is probably wise to mark our progress by three questions: Where are we going? How shall we get there? How will we know we have arrived? (Brethower & Smalley, 1998; Mager, 1997). This introduction and the collection of articles point out several possible directions. The foundations of our field will undoubtedly provide the means for how we will get there. But how will we know we have arrived? As Dale Brethower mentioned in his contribution (who unfortunately passed away several months after the completion of the manuscript), we can "let the data be the guide!" (Brethower et al., in press). However, not just data alone,

but a thoughtful and critical appraisal of the data. To illustrate how data may impact decision making differentially, let us consider the landmark study by Tversky and Kahneman (Kahneman won the Nobel Prize in 2002 for his work in economics. Tversky passed away; the Nobel Committee does not present awards posthumously).

Tversky and Kahneman (1974) were teaching flight instructors in Israel to minimize criticisms in favor of rewards supported by empirical evidence. The flight instructors disagreed and noted that when they praised trainees for good landings, trainees typically performed worse the next time. When the instructors harshly criticized poor landings, their trainees usually performed better the next opportunity. Thus, the flight instructors concluded that praise was detrimental to learning and verbal punishment was beneficial. Tversky and Kahneman suddenly realized that the statistical principle of regression to the mean was responsible for the flight instructors' erroneous conclusion. That is, events that are outliers from typical performance are more likely to return to average performance the next time (see, Figure 1). For example, poor or exceptionally great athletic performances are likely to return to a typical performance for that individual or team the next game. Similarly, exceptionally hot or cold days are likely to return to average highs or lows for that season the next day. Thus, climate change is gradual, many people fail to detect it (Easterling et al., 2000). When learning and behavior change are incremental and relatively slow, extreme outcomes are likely to return to near average performance for that individual. Regardless of whether the flight instructor yelled at the trainee or put a poor landing on extinction, the next time the
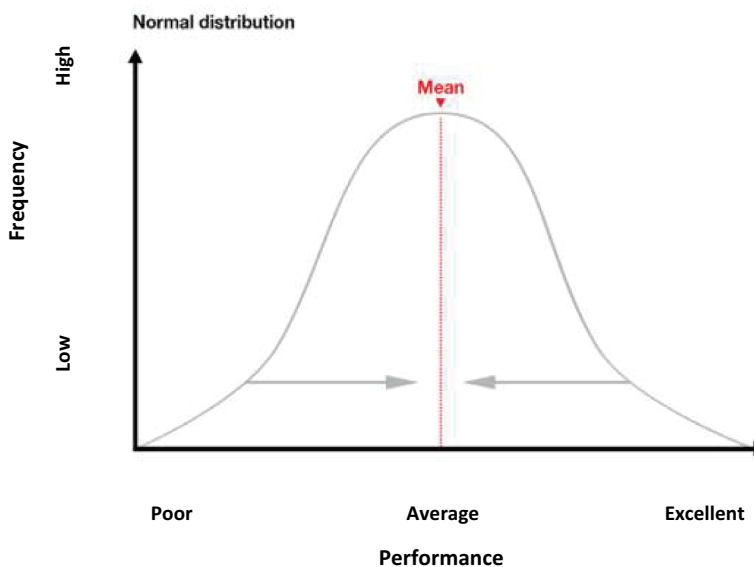

Figure 1. Regression to the mean for performance.

trainee was likely to improve. Conversely, if flight instructors praised great landings, trainees were likely to execute worse in comparison the next time and return to just above or near their average performance. Hence, criticizing flight instructors was being reinforced and the delivery of praise for outstanding performance by trainees was not reinforced by the statistical principle of regression to the mean due to the slow improvements on this complex task. Couple this regression to the mean with the immediate, yet short-term, change in employee behavior and it becomes obvious why aversive control is prevalent. Even though experts have long since warned about the perils of excessive aversive techniques (Azrin & Holz, 1966; Sidman, 1989) and the trends of data overall supported the use of praise, the data based upon the immediate and direct experiences of the instructors supported the use of criticism.

Variation and selection strike again – we are swimming upstream when we advocate the use of reinforcement over punishment to those who are not well-versed in behavior analysis research unless shaping new behavior is rapid and average performance is improving dramatically. Extinction, correcting, and differential reinforcement for alternative behaviors are more humane and effective for long-term behavior change when motivating employees to work in organizational settings (Daniels & Bailey, 2014). Reinforcement contingencies improve and sustain performance over time, but most managers and supervisors do not systematically collect data on the behavior of their subordinates. There might be well-developed outcome measures or results of staff performance, but these are frequently tied to the bottom line in a loose manner at best. We need to understand these various streams of data and plan accordingly. To advance the field, we need to push beyond the normal range of variability into new territory. The world of business is a world flooded with numerical measures. Net cash from operations, optimal size for inventory, present value of a growing perpetuity, internal rate of return, acceptable tolerance levels for machinery, and other precisely calculated quantifications are routinely developed. However, traditional business metrics are largely restricted to processes and products. Metrics involving people are rarely used outside the confines of paychecks, attendance, delivery dates, and infrequent subjective performance appraisals. When it comes to actual day-to-day workplace behavior, the level of precision approaches zero. Instead, vague theories of behavior lurk, outflowing with constructs such as emotional intelligence, drive, vision, motivation 3.0, personality, self-knowledge, level 5 leadership, and many, many more (the list is exhausting and ever-growing).

As such, products and processes are planned, with the hope that annoying human variation does not get in the way and that our exhortations and threats may somehow push the right secret internal button within our employees. As one of the first author's business professors once put, when responding to a question of how we might prevent injuries and deaths when employees hide

unsafe performance, "Well, that's human behavior and there's nothing you can do about that. People will just do things wrong sometimes and you can't stop them." We respectfully disagree with such a fatalistic assumption. The science of behavior shows us how to understand human behavior with the same degree of precision as the other facets of business. This series is a solid start detailing how to achieve this objective. Of course, there remains much to do in the world of work. Join us as we traverse this expedition, varying directions and selecting many prosperous paths.

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