PERFORMANCE MOTIVATION AS THE BEHAVIORIST VIEWS IT

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This article addresses ways in which behavioral science contributes to an understanding of workplace performance and motivation. The authors provide a brief history of Organizational Behavior Management, which is behaviorism applied to the workplace, and its relationship to human performance technology, followed with examples of Organizational Behavior Management concepts and technology related to workplace motivation. Various factors that influence motivation at any given moment are explored, including individual learning histories, motivating operations, and delivery considerations. The use of reinforcement systems and their impact on current and future performance are described. Finally, practical tips for improving motivation in the workplace are provided.

ORGANIZATIONAL BEHAVIOR MANAGEMENT (OBM) is the application of the science of behavior or behavior analysis to the performance of people at work. Hall (1980) defined the field of OBM as consisting of "the development and evaluation of performance improvement procedures which are based on the principles of behavior discovered through the science of behavior analysis" with the goal being to "establish a technology of broad-scale performance improvement and organizational change so that employees will be more productive and happy, and so that our organizations and institutions will be more effective and efficient in achieving their goals" (p. 145). Though this definition and goal statement are 35 years old, they still represent the field of OBM.

Human performance technology (HPT) is defined by the International Society for Performance Improvement (ISPI) as follows:

> A systematic approach to improving productivity and competence, [HPT] uses a set of methods and procedures—and a strategy for solving problems—for realizing opportunities related to the performance of people. More specific, it is a process of selection, analysis, design, development, implementation, and evaluation of programs to most cost-effectively influence human behavior and accomplishment. It is a systematic combination of three fundamental processes: performance analysis, cause analysis, and intervention selection, and can be applied to individuals, small groups, and large organizations. (ISPI, 2014)

These definitions of OBM and HPT are remarkably similar. Both identify (a) utilizing a technology of performance improvement to (b) influence behavior and accomplishments in the workplace. The similarities between the definitions is not all that surprising when one considers the fact that OBM and HPT share a common history and network of founders. Dickinson's 2001 paper, *The Historical Roots of Organizational Behavior Management in the Private Sector*, and Rummler's 2007 paper, *The Past is Prologue: An Eyewitness Account of HPT*, both identify the influence of B. F. Skinner's work in the 1950s on the early applications of OBM/HPT in the 1960s.

As similar as the two fields are, there are also differences, most notably in the theoretical underpinnings. HPT tends to be broad in its theoretical perspective, drawing from behavioral psychology, cognitive psychology, and other sources for explanatory models. HPT has much in common with traditional industrial and organizational

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psychology, which also draws upon an eclectic mix of orientations. This is contrasted with organizational behavior management, in which the driving theoretical model is exclusively behavior analytic. Although behavior analysis does not shun cognitive phenomena, it does reject inferred, hypothetical constructs and processes as explanations for cognitive events (Skinner, 1950).

Unfortunately, most traditional industrial and organizational textbooks do not portray behaviorism comprehensively or accurately, especially in regards to topics such as motivation. Many textbooks refer to behavior analysis simply as *reinforcement theory*, which is misleading since reinforcers are not the only consequences of interest. Additionally, events other than consequences also play an important role in a behavioral approach to motivation. Other examples of misrepresentations include statements such as "Nevertheless, as a complete theory of work motivation, behaviorism falls short, as do other person-as-machine approaches that fail to acknowledge higher mental activities such as reasoning and judgment" (Landy & Conte, 2013, p. 329). This misrepresents behaviorism, since Skinner's acceptance of private events such as thinking and reasoning into his science of behavior is what distinguished modern behaviorism from the behaviorism of the early 1900s (Skinner, 1945). Another misrepresentation can be found in Jex and Britt (2008), who state, "One limitation of OBM, and thus of the behavioral approach, is that it appears to work best when applied to relatively simple forms of behavior." (p. 254). Although simple behaviors are indeed easier to understand and design interventions for than complex behaviors, the current authors are aware of no influential OBM professionals who advocate a restriction to simple phenomena. Finally, Spector (2012) states that "Reinforcement theory says nothing about whether or not a person will want a reward." (p. 199). Once again, this is an inaccurate summarization, as operations that influence the desirability of rewards are a major area of behavior analytic theory, to be elaborated on shortly. As these examples illustrate, misunderstandings about the behavioral approach to motivation are common. We hope that this article can better represent a modern behavioral approach to motivation and correct any misunderstandings that members of the HPT community may have taken from common misrepresentations seen in popular textbooks.

BEHAVIORAL APPROACH TO MOTIVATION

Modern behaviorism offers a comprehensive approach to motivation, beginning with employee selection and placement. The behavioral approach to selection and placement begins with conducting job analyses to identify the mission and critical accomplishments, then identifying the behaviors required to successfully achieve those accomplishments, and finally identifying the knowledge, skills, and abilities required for producing the appropriate behaviors. OBM professionals see prior learning histories as important for getting the right people in the right positions in order to select for repertoires that require the least shaping. In other words, a goal of selection is to bring on individuals with the knowledge, skills, and abilities that most closely approximate the knowledge, skills, and abilities identified by a job analysis. This approach differs from a more trait-based approach to selection that relies on assessing certain personality and work traits believed to be related to success. The key difference is the emphasis on knowledge, skills, and abilities and prior behaviors—the behaviorist view—versus the emphasis on traits believed to be associated with behavior.

After hiring, the emphasis shifts to job-specific training to close any gaps between the employee's current knowledge, skills, and abilities and the knowledge, skills, and abilities demanded by the job. OBM professionals follow a performance-based instruction approach, emphasizing guided observation that includes *show me*, guided practice that includes *help me while I do it*, and demonstration of mastery that includes *let me do it independently* (Brethower & Smalley, 1998; Mager, 1997). Matching training performance with job performance and engineering the workplace to support training outcomes are two critical features of a behavioral approach to employee training. Recent research comparing a behavioral approach (which included pre- and post-training performance support involving the manipulation of antecedents and consequences in the environment to support transfer) to the same training without the additional antecedent and consequence manipulations showed that the behavioral approach resulted in better transfer of training to the workplace (Kazbour, McGee, Mooney, Masica, & Brinkerhoff, 2013).

Perhaps the biggest difference between a behavioral approach to workplace motivation and a nonbehavioral approach is how ongoing performance support is arranged in the work environment. It is not enough to hire individuals with the appropriate knowledge, skills, and abilities. Even when a good selection system is combined with a well-designed training system, motivational problems can still occur. From a behavioral perspective, the solution involves antecedent and consequence manipulations.

Antecedent Manipulations

Antecedent manipulations can be as straightforward as providing job aids, clarifying expectations, or redesigning

processes. However, to fully appreciate a behavior analytic approach to motivation, it is important to understand more complex behavioral concepts. In particular, motivating operations, including various forms of conditioned motivating operations, are a critical component for an operant account of why rewards may vary in value. A motivating operation is a change or event that (a) alters the effectiveness of a reinforcing stimulus and (b) changes the likelihood of all behaviors that have produced that stimulus in the past (Michael, 2004). In everyday terms, it is a factor that will suddenly make an outcome valuable and get people to work for that outcome. Although unlearned motivating operations tend to be more obvious—for example, starvation will make food more valuable—it is the learned and conditioned types of motivating operations, especially those involved in social interactions, that are likely to be more relevant in workplace settings. Two types of conditioned motivating operations will be illustrated below to highlight the potential relevance of this antecedent manipulation; note that additional types do exist.

A reflexive conditioned motivating operation is antecedent stimulus that is correlated with some form of worsening and whose removal functions as reinforcement. In many ways, the reflexive conditioned motivating operation could be considered a warning that the person wishes to eliminate. For example, a manager may approach an employee to state, "Your performance has been sub-standard lately and we may need to rethink your future here." In this scenario, the managerial threat would function as a reflexive conditioned motivating operation and the employee may try to remove the threat, perhaps by engaging in a higher quantity or quality of work.

A transitive conditioned motivating operation is a stimulus that alters the value of some other stimulus and produces behaviors that will result in that other stimulus. Or put differently, the second stimulus has value in the presence of the first stimulus and has no value in the absence of the first stimulus. For example, an employee may have access to data sheets on her daily performance that are both positive and negative, but she may rarely look at these reports despite their continual availability. Let us suppose that one day her manager tells her, "I saw your recent performance sheets and you did terrific last Tuesday." This notification from the manager (first stimulus) may alter the value of data sheets indicating high performance (second stimulous). The transitive conditioned motivating operation of managerial monitoring may produce behaviors that result in the positive daily performance data sheets, such as working harder and checking one's own feedback. Although it was unvalued previously, seeing improvements in one's own performance has now been established as rewarding.

Most leaders in organizations would prefer to see discretionary effort, that is, going beyond minimal requirements, and often lament that employees produce only the minimal effort to avoid being fired (Daniels & Bailey, 2014). A behavioral approach would suggest that different kinds of conditioned motivating operations may motivate different patterns of performance. Note that reflexive conditioned motivating operations *self-terminate* in that the individual is motivated to eliminate the reflexive conditioned motivating operation, after which point further motivation completely disappears. Organizations that rely on reflexive conditioned motivating operations, such as those depending exclusively on managerial threats for motivation, may find themselves staffed with many employees who work just hard enough to remove the current threat and no more, given that increased threats may carry the risk of unacceptable turnover. However, other conditioned motivating operations, such as the transitive conditioned motivating operations, have no such self-terminating feature and, therefore, may produce discretionary effort, such as employees who work hard to see their own performance, because their managers have expressed appreciation for improvements.

Consequence Manipulations

The use of reinforcement and reward systems may be viewed as the hallmark of OBM. When properly used, these systems increase targeted behaviors and results. Unfortunately, these systems can also be poorly designed, relying on punishment, avoidance, and counterproductive competition rather than reinforcement and cooperation. In addition to the performance problems created by poorly designed reinforcement and reward systems, their misuse also lends to misconceptions about behavioral science and its value in the workplace.

The use of consequences to support performance can be as simple as providing specific praise and feedback about performance and as sophisticated as comprehensive monetary and nonmonetary incentive systems. Proper use of incentive systems relies on certain requirements. First, the critical results and behaviors must be pinpointed including being explicitly defined, objective, and measurable. Additionally, preference assessments should be administered to determine valued reinforcers and rewards. Preference assessments can take many forms, including interviews which are useful for small groups, surveys which are useful for large groups, and experimentation with various items to determine whether they, in fact, increase performance. What is important is that the chosen consequences are valuable enough to get

employees to work for them. No manipulation or delivery system will make a difference if the consequence is never reinforcing due to the person's learning history. Finally these reinforcers must be delivered contingently, meaning that the specified behaviors and results must occur under predefined circumstances and to predefined criteria (Daniels & Bailey, 2014).

Critics of reinforcement or incentive systems, especially monetary systems, have argued that extrinsic reinforcers decrease intrinsic motivation (Kohn, 1993; Pink, 2009), and this has sometimes been termed the *overjustification effect.* What may be arguably the most frequently cited article documenting the overjustification effect was a study conducted by Lepper, Greene, and Nisbett (1973). In this classic study, it was argued that rewards decreased children's natural play with color markers. This study, and subsequent similar literature, was often used by incentive critics to warn that external rewards need to be avoided or minimized. However, there are several flaws with this interpretation, including the fact that the rewards were never tested for reinforcing properties and that the long-term detrimental effects were not documented (Cameron & Pierce, 2002). Lepper et al. (1973) used a reward which they described as "colored 3×5 inch cards with the words 'Good Player Award' and spaces engraved on the front next to a large gold star and a red ribbon" (p. 133). At no point did the researchers deliver the extrinsic reward contingently upon any of the children's behaviors to see if the reward had the potential to increase the frequency of behavior. The authors did not even complete the minimal step of at least surveying the children to see if they would consider a "Good Player Award" valuable. Without proper assessment, the authors could not have known if the intended reward would have a reinforcing, punishing, or neutral effect upon the behavior of the children involved in their study. In fact, the only stated basis for selecting this reward was the fact that Good Player Awards had supposedly "proved effective rewards in previous studies (e.g., Harter & Zigler, 1972)" (p. 133). However, the researchers whom they cited also failed to test whether the "Good Player Award" would reinforce behavior in their own studies (Harter, 1967; Harter & Zigler, 1974). It should be noted that they worked with a very different set of individuals, and what is reinforcing for the behavior of one group of individuals may not be reinforcing for the behavior of another group of individuals—see the previous point about preference assessments—and note that they were not behavioral researchers themselves. This is an important observation indicating that Lepper et al., and subsequent writers, took rewards and reward delivery procedures developed by nonbehavioral researchers as a basis for criticizing behavioral techniques. The reinforcer assessment and reinforcer delivery procedures recommended by behaviorists do not necessarily match the presumptions employed by nonbehavioral researchers.

In regards to the potential detrimental effects, it is important to assess whether (a) these effects are long lasting or temporary; and (b) if losses in intrinsic motivation are offset by the gains in overall motivation. Such considerations are often omitted in the analyses and writings of many proponents of the overjustification effect. The importance of considering these issues may be illustrated with some hypothetical data. Suppose that two groups of employees are monitored over an 18-day period, with no interventions being implemented during the first 6 days; that is, behavior is motivated by intrinsic conditions. Then for days 7–12, the first group of employees is given an extrinsic reward, such as individual monetary incentives, while the second group continues under normal working conditions. Finally, the first group is returned to normal working conditions for days 13–18, and the second group remains in the same normal working conditions. During this time period the production of some arbitrary work unit is measured. As a result, we may discover raw data as seen in Table 1.

Note that in Table 1, the performance of Group 1 during the first phase, that is days 1–6 that serve as the preintervention "intrinsic" performance, averaged 1673 units produced. If an actual reinforcer was used, as opposed to a reward presumed to be reinforcing, one would expect performance to increase during days 7–12 for the second phase. This is seen in the data and is represented graphically with Figure 1. Proponents of overjustification theory often imply, if not directly state, that extrinsic

TABLE 1 HYPOTHETICAL DATA ON GROUP PRODUCTION UNDER EXTRINSIC AND INTRINSIC CONDITIONS

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Group 1	1587	1836	1696	1689	1733	1497	1918	2789	3178	3705	3828	4658	9	28	98	1437	1894	1688
Group 2	1699	1549	1629	1554	1748	1976	1478	1784	1633	1687	1773	1566	1908	1693	1707	1495	1646	1589

rewards will produce a permanent loss of intrinsic motivation. Although the average performance during the third phases—return to intrinsic conditions for days 13 through 18—is 859 units, it would be misleading to state that this is a permanent loss in performance.

Figure 1 demonstrates a temporary reduction in performance that quickly recovers and has returned to normal levels by the final three days. Unfortunately, many studies simply report only the immediate declines or averaged performance. For example, Lepper et al. (1973) only reported average performance following the removal of the "Good Player Award." Specifically, the rewarded children spent only 8.59% of their time playing with markers after the reward was removed. This is analogous to our hypothetical 859 units produced by Group 1 for days 13–18. The unrewarded children spent only 16.73% of their time playing with markers during the same time period. This is analogous to our hypothetical 1,673 units produced by Group 2 for days 13–18. However, their aggregated data make it impossible to determine if the behavior was permanently reduced or if it was in the process of recovering to normal levels. Also neglected are the potential improvements from extrinsic rewards. Note that in our hypothetical data, the gains during the second phase far exceed any losses during the third phase and that the overall performance of Group 1 is superior to Group 2, despite any losses to intrinsic motivation. The current authors would suggest that ignoring the potential improvements seen in phase 2 out of fear due to the possible temporary reductions seen in phase 3 would be a poor business decision, especially if there is no reason to eliminate a successful extrinsic reward system. Furthermore, what if intrinsic motivation is not enough to meet the minimum demands of the business; for example, what if producing only 1,673 units will result in bankruptcy? This possibility is rarely addressed in the nonbehavioral literature on intrinsic versus extrinsic motivation, and this concern extends well beyond just the study by Lepper et al.

Much of the popular literature (Kohn, 1993; Pink, 2009) has essentially recommended throwing out potentially successful extrinsic rewards in favor of intrinsic motivation that often lies outside a supervisor's influence. As such, managers are denied the opportunity of designing more motivating work environments and are instead left at the mercy of elusive intrinsic motivations that are hopefully sufficient to meet the needs of the company.

An even more important point can be seen directly with the data from the original study by Lepper et al. (1973). Again, the *expected award* condition did produce lower percentages of the targeted behavior as compared with the more natural *no award* condition: 8.59% versus 16.73%, respectively. A neglected piece of data comes from the *unexpected award* condition, which did not lower the targeted behavior (18.09%). Since the *no award* and *unexpected award* conditions showed no statistically significant differences, this means that awards were not the problem, despite the fact that such rewards, and by extension reinforcers, are frequently scapegoated in the literature. Put differently, *the problem was not with the rewards, but with how the rewards were delivered.* Behavior analysts would suggest that rewards could have either beneficial or harmful effects, depending on how they are delivered.

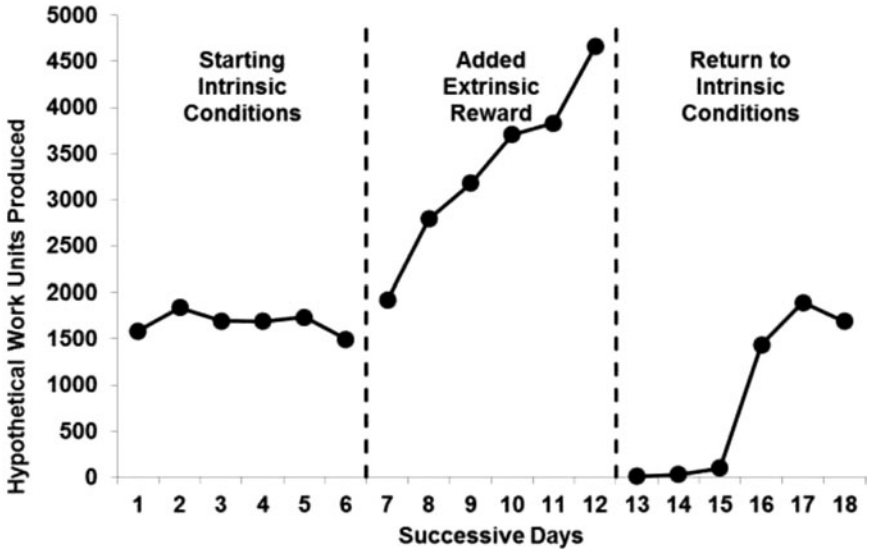

FIGURE 1. HYPOTHETICAL DATA OF GROUP 1

The analysis of contingencies surrounding delivery is a major focus of OBM and another important piece for understanding the behavioral perspective to motivation. Rewards that are delivered noncontingently—that is, the reward is delivered whether or not the desired performance occurred or occurred at a specified level—may decrease motivation. However, this does not occur when extrinsic rewards such as praise and tangibles are delivered contingently; the reward is only delivered if the performance occurred at the specified level (Dickinson, 1995; Mawhinney, 1995). This is important because many arguments against a behavioral approach rely on the faulty assertion that extrinsic rewards are inherently bad and that behavior analysts blindly depend on such rewards. This is another example of a misrepresentation, since OBM professionals argue that consequences need to be delivered thoughtfully in order to improve performance.

SUMMARY

Despite suggestions to the contrary, the behavioral approach to performance motivation is alive, relevant, and much more comprehensive than typically reported. This article only briefly summarizes some of the OBM research and theory pertinent to this topic. The behavioral perspective provides a framework for understanding motivation rooted in variables that a manager can meaningfully act upon. It suggests that an organization first identifies employees whose learning histories suggest they are the easiest to motivate and who are well suited to the work demands as part of selection and placement. It also suggests that management finds ways to establish a work setting likely to prompt desired behaviors, as well as find or create rewards that are valuable to the individual worker as part of motivating operations and preference assessments. Finally, it suggests that how those consequences are delivered matters as much as what those consequences are; this is contingency management. Even if a person chooses to disagree with the theoretical model underlying OBM, the field still offers practical guidelines that HPT practitioners should take into consideration in crafting workplace implementations.

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