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Behavior Analysis and Positive Human Values

Análise do Comportamento e Valores Humanos Positivos
Análisis del Comportamiento y Valores Humanos Positivo

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ABSTRACT

In the reprint in this special issue of my 1974 paper, *Are behavioral principles for revolutionaries?*, I make the point that I remake in the article below: the definition of problem behavior and the contingencies affecting its change are affected by the extent to which the individuals whose behavior is being targeted participate in the definition. Contingencies designed to impact human behavior can have deleterious effects if the imposition of these contingencies is on those without power or choice. When those in power enlist the expertise of behaviorists to change the behavior of those without power, our science tells us that the results will not be what some may expect. I conclude with lessons from the misapplications of behavior analysis in stratified power systems that should affect our professional behavior to diminish the likelihood of additional misapplications of our science.

Keywords: behavior analysis; positive human values; stratified power systems; contingency management system.

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RESUMEN

En la reedición en este número especial de mi artículo de 1974, ¿Servirán los principios conductuales para los revolucionarios?, destaco un punto que ya estaba presente en este trabajo: la definición de los problemas de conducta y de las contingencias que afectan a su cambio se ven afectados por la medida en que los individuos, cuyo comportamiento está siendo cambiado, participan de la definición de lo problema. Contingencias diseñadas para impactar la conducta humana pueden tener efectos nocivos si estas contingencias se imponen a los que no tienen poder o elección. Cuando los que están en el poder contan con la experiencia de los conductistas para cambiar la conducta de los que no tienen poder, nuestra ciencia nos dice que los resultados no serán lo que algunos pueden esperar. Concluyo con lecciones aprendidas de las malas aplicaciones del análisis del comportamiento en los sistemas estratificados de poder que debería afectar nuestra conducta profesional con el fin de reducir la posibilidad de malas aplicaciones de nuestra ciencia.

Palabras clave: análisis del comportamiento; valores humanos positivos; sistemas estratificados de poder; sistema de manejo de contingencias.

RESUMO

Na reedição, neste número especial, de meu artigo de 1974, Os princípios comportamentais servem para os revolucionarios?, eu destaco um ponto que já estava presente neste texto: a definição de um comportamento problema e as contingências que influenciam sua mudança são afetadas pela extensão na qual os indivíduos, cujo comportamento é alvo de mudança, participam do próprio processo de definição do problema. Contingências planejadas para impactar o comportamento humano podem ter efeitos deletérios se essas contingências forem impostas sobre aqueles sem poder ou escolha. Quando aqueles que estão no poder requisitam a expertise dos comportamentalistas para mudar o comportamento daqueles desprovidos de poder, nossa ciência nos diz que os resultados não serão aqueles que se deseja. Concluo com lições extraídas do mau uso da análise do comportamento nos sistemas de poder estratificados, que deveriam afetar nosso comportamento profissional no sentido de diminuir a probabilidade de novos usos indevidos de nossa ciência.

Palavras-chave: análise do comportamento; valores humanos positivos; sistemas de poder estratificados; sistema de manejo de contingências.

When I was in graduate school nearly 70 years ago, few had heard of B. F. Skinner and there was no science of human behavior. My early research, as a new Ph.D., was the first application of behavioral principles to humans: I studied the effects of schedules of reinforcement on human "vigilance". United States Navy men had to monitor the occurrence of a rare event, such as a ship or plane coming into a territory and, because it was rare, they would miss some. But when we imposed reinforcers for

"looking behavior" on a particular schedule, the accuracy of their vigilant behavior increased. Replicating the effects of schedules of reinforcement with humans, heretofore shown only with lab animals, suddenly got a lot of attention. Thereafter, research on the impact of contingencies of reinforcement and punishment on human behavior exploded. Applications are now ubiquitous, across settings and different types of people (from the classroom to corporate room to courtroom). People with advanced training, and those with little, now can be found applying the principles of operant psychology or behavior analysis across the globe. Throughout these seven decades, I've seen what many scientists see – the use of a science for the good of many as well as the gain of a few. But we can use the tools of behavior analysis to determine the likelihood that our science of human behavior will be used ethically.

In the paper reprinted here, I describe how contingencies designed to impact human behavior can have deleterious effects if the imposition of these contingencies is on those without power or choice. Such misapplications of our science are hard to avoid in systems that are "stratified" – where those in power enlist the expertise of behaviorists to change the behavior of those without power for the benefit of those at the top. Critics of behaviorism most often are referencing this sort of use of behavior analysis and I agree with them. In my paper, "Are behavior principles for revolutionaries", I provide examples of designing systems of behavior change with and for those whose behavior is being changed. In this introduction to the paper, I would like to share contemporary examples of designing systems that benefit those in power *versus* systems that benefit those whose behavior is targeted. I will conclude with a set of questions that all behavior analysts should ask themselves prior to embarking on a contingency management project.

Recently the US intelligence community hired psychologists to design more effective interrogation techniques for use with detained people considered to be potential terrorists. Investigations of these procedures by our government exposed the techniques as torture. The psychologists involved were not members of a professional body of psychologists and therefore not under any professional ethical scrutiny, other than their own and those who hired them. They designed an interrogation system based in large part on "learned helplessness," an area of research conducted by the prominent behaviorist, Martin Seligman, in the 1960s and 1970s. In trying to better understand human depression, Seligman discovered that when lab animals were faced with a schedule of punishment from which they could not escape, they became passive and unable to escape the punishment even when opportunities were presented to do so. This learned helplessness had very important implications for people suffering from depression. Behaviorists developed positive interventions that could reduce learned helplessness in people to alleviate some of the more disabling aspects of depression.

The enhanced interrogation techniques were used to establish learned helplessness among the detainees. Here is clearly an example in which those in power were to benefit and those whose behavior was being modified had no escape, no choice, and certainly no input into their situation. Psychologists in general and behaviorists in particular were appalled with this misapplication of our science. Seligman (2010) issued a statement to the public, "I am grieved and

horrified that good science, which has helped so many people overcome depression, may have been used for such bad purposes".

The outcome of these enhanced interrogation techniques is consistent with the examples I provide in my article, "Are behavior principles for revolutionaries?". When behavior change systems are used to coerce change in subjugated people, the results often do not lead to the desired behavior change – those who are coerced resist, engage in countercontrol behavior, or find other means to avoid the punishment or access the reinforcement. And, in fact, it appears that the enhanced interrogation techniques never resulted in intelligence information of any value. Coercive control can, on the surface, appear to work, but our science tells us it is not an effective way to change behavior.

Too bad those who hired these psychologists did not have access to the behavioral research on coercive control, for they then would have known these psychologists were selling something that would not work. Too bad we behaviorists have not done the job we need to do in communicating with the public broadly on the effective AND ethical use of behavioral principles. I have written at length elsewhere that there is no such thing as a value-free application of a science, including behaviorism. The science is value free, but those applying the science can be affected by strong contingencies to use behavior principles in ways that our science (including its research results) does not support (e.g., in the enhanced interrogation case, these psychologists were paid $81 million (Santhanam, (2014)).

Beyond the ethical oversight provided by a professional member organization, there are at least three ways to counter-act the contingencies operating on behaviorists, or to police this kind of behavior by those purporting to use sound behavioral principles: 1) have more people understand these principles so they could spot incorrect uses; 2) require of those hiring designers of behavior change within a system of great inequality of power, the use of independent experts to judge the likelihood of effectiveness and ethical use; 3) teach all students of behavior analysis (and re-teach the professionals as well) about the unintended consequences of misapplied principles of our science, especially in stratified systems. Our science should not shrink from discussions of values, which are clusters of behaviors that increase the salience of other behaviors.

A less obvious example of how behavior principles can be used for ill but, in this case, also for good, can be found in the US health-improvement industry. Nearly 90% of US employers now offer healthy-behavior incentives as part of their health insurance benefits programs. Such programs hardly existed before 2009 (Wall Street Journal, 2013). Even though those in power are the ones hiring experts to design incentive plans for employees, who can argue that the targeted behavior, engaging in healthier behavior, is not good? Even so, a stratified system can create contingencies that are coercive, along with unintended results.

The remarkable increase in incentive based health plans has more to do with companies wanting to contain the ever-increasing costs of healthcare for employees. Wellness programs became the focal point for such cost-containment. If people receive various rewards (including money) for engaging in healthy behavior, their health would improve and they would not drive-up the cost of employer-sponsored health.

Some research supports this belief: 36 peer reviewed studies show that the average medical cost for employers fell by over $3.00 for every dollar they spent on a wellness program (Health Policy Brief).

The variety of these health-contingent wellness programs is staggering. But most work like this: employees receive an annual bonus payment if they complete certain healthy actions such as having periodic health assessments, attending health-education training, and participating in healthy activities (such as walking, etc.). For example, the total cost of an employee's health insurance could be $5000 and the employee has to pay $2500 (with the employer paying the other $2500). But the employee could receive $1500 more in health insurance coverage from the employer if they get a cholesterol screening and reduce their cholesterol count; and they could receive another $1000 in health insurance coverage if they can certify that they did not use tobacco products. The net effect of these incentives is the "healthier" employee can have all of his/her annual insurance premium covered by his/her employer. Yet some plans are designed with penalties; so for example, everyone may start with full coverage but then those who fail to get health screenings, whose cholesterol remains persistently high, who continue using tobacco, have to pay more of their coverage. Either of these plans have disadvantages, especially for those who are more genetically inclined to have high cholesterol or high weight or whose work schedules make it difficult to get to the gym, and, therefore, there is controversy around their use despite their popularity by employers. These systems have all the opportunities for coercive control that behaviorists should be wary of. Additionally, the time lag between various healthy behaviors and the reinforcers (an annual bonus or decreased cost of one's insurance premium) suggests that such plans may not produce the desired health changes they assume.

One example of a health-contingent plan stands out in my mind as a design that avoids coercive control and includes finer-grained contingencies of reinforcement and, therefore, is more likely to produce healthy behavior changes. A large global corporation hired a well-respected consulting group that is known for its behavior analysis orientation. Due to corporate privacy issues, I cannot reveal the name of the company, but I assure my readers that this company exists and in no way is a trivial example. This company had workers who toiled in conditions that could be considered risky as well as office employees. The consulting firm was asked to develop a wellness plan that would work in both settings. The designers of the system established a few over-arching goals: the program would have to 1) exemplify the value of employee autonomy and freedom of choice; 2) assure privacy of healthcare information; 3) have small employee groups empowered to make decisions regarding healthy options; and 4) provide individuals with frequent access to their own performance data. The CEO's primary goal was to ensure that hard-to-replace, highly experienced and skilled employees were not lost to preventable chronic illness; the primary goal was not to save healthcare dollars. In fact, new dollars would be invested in increasing the health of employees. Thus, the plan would not contain any penalties for lack of participation or failing to meet healthy goals.

Like most of the health-contingent wellness programs, this one started within the upper echelons of the strata (with the CEO, the consultants, and the company's Human Resources executives) but quickly they decided to put more of the power in the

hands of each employee work team. The targeted behaviors were ones that the employees valued: walking more, learning more about healthy choices and one's own health status, and participating in setting new healthy goals. All employees had the option of receiving a free accelerometer (a device that measures steps), which counted and accumulated individual's steps. When an individual uploaded the data, the individual's total steps could be converted into numbers of points and average points per employee in a team could be calculated and accessible to each team supervisor. Individual's results were not available except to the individual. A third party vendor tracked the steps and points and at no time did employees indicate that their point totals were leaked to others. Privacy of their information was maintained.

The plan added ways each employee could accumulate more points: by having periodic health assessments; attending health/nutrition education sessions; and so forth. Employees could check their point totals as often as they liked (even from home). Highly engaged employees could earn up to about $750 in healthy-behavior bonuses each year (paid out in monthly amounts depending on their point totals). The decision to keep the monetary, extrinsic reinforcers at this low level was also suggested by the research – the incentives were put in place to increase initial engagement in the wellness program. The assumption was that once employees began to experience positive changes in their health, more powerful, intrinsic (natural) reinforcers would help assure continued healthy behavior. Feeling better, feeling stronger could further sustain healthy behaviors across time and settings.

A key interim goal (before the intrinsic benefits of healthier behaviors could be experienced) was to change the relative importance of consequences team members provided to one another. Before this program, the consultants observed the natural actions of the employees' team leaders. When on breaks, they sat in lounge chairs and consumed cake and ice cream and encouraged others to do the same, and teased those who used the fitness equipment on breaks. Similarly, for office employees, although the cafeteria offered a few "healthy" options, hardly anyone tried them. So one key goal of the program was to find ways to encourage peer groups to reinforce one another's healthy behaviors. For example, for office employees, a weekly game called, "Try it – Buy it" was instituted. Twice a month in the cafeteria, a nutritionally sound snack was presented, and everyone who tried it got to vote on whether they liked it or not. Snacks that scored above some criteria were put on regular cafeteria rotation, and their recipes (and nutritional information) were made available to employees to make at home.

Supervisors received training and re-training on encouraging employees' progress (and never shaming anyone) and eliminating any of their previous behaviors that may have discouraged healthy choices. Thus the context for the program, within the smaller work team, was more likely to be positive (and coercion avoided) and directed toward greater healthy behaviors.

Prior to the implementation of the wellness plan, work teams met once a week for a work review of which the first 5 to 10 minutes were devoted to "safety." The wellness plan was deemed an aspect of safety (healthier employees results in fewer accidents) and once a month the work teams were given relevant health themes to discuss during the 5-10 minutes' safety sessions. For example, during the hot summers, they dis-

cussed ways to ensure hydration for all on the team. Or if the theme was "healthy snacks," each team could determine how best to assure eating healthy snacks while working. One team suggested that they would start putting all the donuts and beautiful desserts in places harder to reach and they'd have the healthier snacks more readily available. At the beginning of the wellness plan, employees were worried that the plan would take away their donuts and force them to eat carrots. The plan actually left that up to the employees.

An annual survey of employees assured that the system, and the reinforcers available through participation, remained positive and not coercive. Employees reported overwhelmingly positive responses for the plan including how it changed their whole families' lives; at one point free accelerometers were made available to family members too so they could join the employee in developing healthy walking habits. Finally, the CEO was a model of the wellness plan. He wore his accelerometer everywhere he went; he lost 20 pounds; and he highlighted in the corporate monthly newsletter the suggestions for healthier behavior from each team.

Here you see a stratified system, one with power at the top over much lower paid employees on the bottom. However, the coercion that so often creeps into systems like this seems to be being avoided. First, those at the top exposed themselves to the similar behavioral contingencies as those at the bottom. The CEO participated in the wellness programs too. One wonders how far the enhanced interrogation techniques would have gone if those in charge had exposed themselves to the same contingencies as those interrogated.

Secondly, the targeted behaviors were ones that mattered to the employees at all levels. In their work teams, they developed team targets (e.g., accessing only healthy snacks) making the targets even more tailored to what they wanted.

Third, individuals had access to their own data and could view it frequently. Through their team supervisor they knew the per employee average points and could judge how much more they and their team partners could do to advance the group. While there was no "group contingency" (for fear that it would produce aversive levels of peer pressure), there were group discussions regarding healthy behaviors and corporate acknowledgement of a team that came up with creative ways of achieving a healthy target for the month. Support for healthier behaviors came from peers in each work team.

Fourth, the team supervisors learned how to manage the program so that it remained positive. The supervisors abided by the values of "employee autonomy, choice and privacy" and each was a participant himself in the program.

Fifth, the behaviorist consultants, while paid well, embarked on the design project with firm grounding in the values of "employee autonomy, choice, and health privacy". Had these values been compromised by the corporation's plan-implementers, the consultants were willing to walk away.

What can we learn from these contemporary examples of misapplications of behavior analysis found in stratified power systems? I think it is obvious by now that we behaviorist have a lot of work ahead of us to assure the programs we design are more like the corporation that I describe above and less like the coercive variations of health-contingent wellness programs. A set of questions used by anyone designing

a contingency management system (or for those considering hiring someone to do so) may help us decrease the likelihood of misapplications of our science:

1. Is the system in which a contingency management program will be embedded a stratified one? In other words, are there people at the top who want to design a program for people at the bottom? What do people at the bottom want?
2. To what extent will the targeted behaviors and consequences benefit those at the bottom vs. those at the top? What are the benefits for those at the top that may not be being discussed? To what extent are the benefits for those at the top and those at the bottom aligned?
3. To what extent will those at the bottom help design the plan? Will they be free to opt out or suggest variations in the plan?
4. Who will have access to individuals' behavioral data, how often, and how will it be used?
5. Will those at the top experience similar (if not the same) contingencies as those at the bottom?
6. Will the extrinsic reinforcers that the program begins with be faded out so that more sustaining, intrinsic reinforcers can become effective (to assure continuation of the targeted behavior)?

These questions are guided by many decades of research on contingency management systems and human behavior. The research shows us that coercive systems yield undesirable results; that frequent reinforcement must occur close in time to the desired behavior; that intrinsic reinforcement (natural reinforcement) will more likely sustain behavior change and should be "programmed" to assure such generalization; that frequent feedback is essential for behavior change; that effective reinforcers for desired behavior change are context and person dependent. Our science says it is so. All of these questions guide us toward a positive use of our science. And the alignment of what the research tells us to do and what our positive human values tell us to do is very satisfying.

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