

Strategies to Position Behavior Analysis as the Contemporary Science of What Works in Behavior Change

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Published online: 1 October 2015

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Abstract The negative perception of behavior analysis by the public, and conveyed in mass media, is well-recognized by the professional community of behavior analysts. Several strategies for correcting this perception have been deployed in the field by organizational behavior management practitioners, in particular, with encouraging results. These strategies include (a) reframing behaviorism in a more resonant format, (b) pushing direct outcome comparisons between behavior analysis and its rivals, and (c) playing up the “warm and fuzzy” side of behavior analysis (see Freedman 2015, in this issue, for a thorough description of these strategies). This article outlines three additional strategies that the author believes will position behavior analysis as a “contemporary science of what works in behavior change.” These new strategies are (a) creating a cohesive, easily understandable framework; (b) personally communicating a more contemporary, sophisticated message; and (c) using technology to achieve scale.

Keywords Behavior analysis · Mass media · Public perception · Organizational behavior management · Behavior analytics · Behavior analysis framework

In this same issue of *The Behavior Analyst* is a companion article by my colleague David H. Freedman, “Improving Public Perception of Behavior Analysis” (2015). In it, he describes the poor public perception of behavior analysis, and the distorted, uninformed, and disinforming view of the field as presented in mass media, even in more sophisticated channels like *The New York Times*. He closes his article with recommendations for ways that behavior analysts can improve the public perception of a discipline that has great potential to improve many aspects of society. As a practitioner,

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I have used the strategies he suggests and I recommend three more to position the field as a contemporary science of what works in behavior change.

Overview of Freedman’s Public Perception Strategies

For over 30 years, my colleagues and I have applied behavior analysis in business and industry. We deployed the three strategies that Freedman suggests: (a) reframing behaviorism in a more resonant format, (b) pushing direct outcome comparisons between behavior analysis and its rivals, and (c) playing up the “warm and fuzzy” side of behavior analysis. We believe these strategies resulted in successes for our global clients and significant growth for our company. The following are descriptions of what we did in each of the strategies.

Freedman Strategy 1: Reframe Behaviorism in a More Resonant Format

As recommended by Freedman, we often repackaged behavior analysis in a way that resonated with our clients and met their preferences, not our needs as scientists or purists. For example, we saw in the 1990s that our clients hated the word “behavior.” The behaviorism controversy, referenced by David Freedman, was still a hot issue then. Organizations were moving away from command-and-control leadership structures and toward self-directed work teams and process management (instead of people management). Behaviorism seemed to fly in the face of all of this.

We went so far as to rename our ABC analysis tool as “APC Analysis,” where the “P” stood for Performance. It included both the targeted result and desired pinpointed behaviors. Trained as an experimental behavior analyst, it seemed almost shameless to me at the time. As might be expected, we received negative feedback from the behavioral community—but our approach resonated with our Fortune 100 clients.

Our goal was to engage decision-makers, leaders, and employees early in our projects, confident that once they saw the results of our work together, they would want to know more about how we achieved those results. With many clients, our gamble paid off. Big global clients, those who were willing to provide references for us because of the astounding results they achieved, chose to immerse themselves in the science so they could sustain the gains. Those were some of the most rewarding times for our consultants, and the experience emboldened us to lead with the core science with other clients. We tried hard to make the core concepts and terms as accessible as possible, both verbally and visually, through memorable models, videos, stories, and mnemonics.

Over the years, we embedded the behavioral core into many specific business applications while staying true to the principles, techniques, and terms of the science. We called these consulting offers “wrappers.” They included services such as Behavioral Lean SigmaSM, Behavior-Based Forecast Accuracy, and Behavior-Based Execution Excellence. This reframing allowed us to approach multiple markets and decision-makers, and to show unique breakthrough applications of the science. It helped our clients see that behavior analysis could be applied to very complex organizational challenges with great success.

Freedman Strategy 2: Push Direct Outcome Comparisons Between Behavior Analysis and Its Rivals

Due to our early successes with Fortune 100 clients, we soon found ourselves on the radar screens of global consulting firms, such as McKinsey & Company, Deloitte, Bain & Company, and Boston Consulting Group, and competing with them. We initially took it as a compliment, but then they started to “borrow” our slides on ABC analysis and other behavior-based deployment techniques. In time, they even wooed away a few of our consultants and began to sound like us. But that did not mean they could deliver in the way that our firm did.

Delivering excellence in our field requires having core competence in behavior analysis as an entire enterprise, not in having a few individuals who possess behavioral expertise. An analogy would be if Microsoft tried to improve its user experience by hiring a couple of Apple’s top user interface designers. That strategy simply would not work: Microsoft’s core competence is in developing software that allows individuals and organizations to be more productive and engaged in their work, not in creating an amazing user interface. A few individuals from Apple would never be able to turn Microsoft’s mammoth ship.

We understood this, but often our potential clients did not. So, to help our clients make an informed choice among behavioral firms, we used a simple approach: we armed them with a decision matrix and questions they should ask each firm to evaluate which one could best deliver sustainable behavior change. We built into the decision criteria the basic elements of our science, which educated the decision-makers on what to look for. When we used this tactic, we won the contract every time.

We were bold as we promoted ourselves in these decisioning discussions. I’ll never forget when one internal consultant said, “You will never get this project. One of the largest, most respected consulting firms in the world supports us on all global strategic initiatives like this. Their project lead is one of the top five change management consultants in the world. What makes you think you can compete?” I looked him in the eye and said, “I know the other top four change management consultants. They are all in our firm. And your CEO knows that he has to do something different this time to get results. The stakes are too big and the other firm has not produced a practical approach to execute this strategy. That’s why your CEO asked us to work with you and others to propose an approach that will work. He can’t afford to fail on this initiative.” Then we proceeded to compare the other company’s approach and record of results with ours, to make the core distinctions highly concrete.

The bravado and marketing panache we demonstrated as a small firm made people smile and ultimately endeared us to them. Because we did not blink, and because we had a remarkable track record of results and satisfied customers willing to refer us, we won contract after contract.

Freedman Strategy 3: Play Up the Warm and Fuzzy Side of Behavior Analysis

We knew the importance of warm and fuzzy: our consultants were the first and primary source of reinforcement for shaping new leadership behaviors. As a result, we recruited consultants who could connect with people easily and serve as meaningful sources of reinforcement. We wanted consultants who had behavioral expertise *and* empathy, the

ability to think logically *and* the ability to laugh. We selected consultants who could help clients get results *and* build deep, lasting relationships. We taught our consultants how to capture, celebrate, and disseminate anecdotal stories of success, how to encourage clients in applying what they learned from us to their lives outside the workplace, and how to share their own vulnerabilities and successes in applying the behavioral approach to all aspects of their lives.

Whenever we helped make the science “warm and fuzzy,” we were surprised by the “pull” we received to engage others. Clients asked us to provide Saturday morning workshops for family members. Executives wanted us to work with their spouses as they transitioned to retirement. Companies financed us to work side-by-side with them in local school systems. Our successes were ultimately due to the science and its practicality, but the initial pull resulted from the warm-hearted way our consultants delivered their behavioral expertise and behavior change support.

Overview of the Author’s New Strategies to Contemporize Behavior Analysis

Freedman suggests that Applied Behavior Analysts conduct trials to determine whether the three strategies he suggested work. I can honestly say that we conducted hundreds of successful “trials” or projects in our target markets. These strategies worked beyond a doubt. Because of our successes and those of other firms in the field of organizational behavior management (OBM), I believe we helped create the market space for the other “behavioral experts”—authors such as Charles Duhigg in *The Power of Habit* (2012), Daniel Pink in *Drive* (2009), Dan and Chip Heath in *Switch* (2010), and Richard Thaler and Cass Sunstein in *Nudge* (2009). Now, organizational leaders and employees are comfortable talking about behaviors, consequences, environmental influences, and such.

Yet, despite these successes, the OBM community was never able to establish behavior analysis as a specific discipline taught in business schools, or as an internationally recognized management system like process management has been able to achieve. Three decades later, the science of behavior analysis means nothing to, shall we say, 99 % of the world’s business leaders.

The breaking point for me came when I experienced both the highest of high, and the lowest of low, of my career—all within 6 months.

The CEO of a global pharmaceutical entity, with whom I had worked for years, had an interview with the *New York Times* (Bryant 2011). Asked what his most significant leadership lessons had been, he said one of his top two was learning about behaviors and consequences as a root cause of performance issues, and what to do about them. I was so pleased that he had “gotten” it and was willing to go public. It was a high moment of my career.

Shortly thereafter, a couple of his top executives asked whether we could assist with two major challenges that the CEO knew had significant behavioral underpinnings. First, in one national healthcare system, physicians were not following the company’s recommended protocols for treating a specific disease. As a result, the company was unable to provide the outcome-based evidence it needed to secure national-level contracts. Could we help change the physicians’ behaviors across the system?

Second, his company had experienced significant quality issues at one of its global manufacturing facilities. He asked for a way to confirm that people on the manufacturing line and in quality control were “speaking up for quality” and doing the right thing every time there was a quality issue. The solution had to be a behavior change system that would produce measurable, reliable, and sustainable “quality improvement behaviors” across more than 75 plants around the world.

I tried everything I could think of to help him meet these challenges, but ultimately I was unsuccessful. We did not get past the proposal stage. It was the low point of my career: to be given these two opportunities by someone who valued both our approach and my counsel, and to be unable to deliver.

I swore that I would not retire until I could figure out a way to deliver on such strategic, global, behavior-based projects. That started a 2-year quest to determine how to accomplish this. As a result of this quest, I identified three additional strategies that not only will help us make headway in securing the “mindshare” of executives, but also position behavior analysis as a legitimate *business management system*. These strategies also can be used to position behavior analysis more broadly as the contemporary science of what works in behavior change. The strategies are: (1) create a cohesive, easily understandable framework, (2) personally communicate a more contemporary, sophisticated message, and (3) use technology to achieve scale. Each is described below.

Smith Strategy 1: Create a Cohesive, Easily Understandable Framework

In my research, I turned to “gurus” who had created other widely accepted business management systems, such as strategic management and process management. I wanted to know how they had created such influential paradigm shifts. I spoke extensively with Dr. Mikel Harry, the cofounder of Six Sigma. I read the *Lords of Strategy* (Kiechel 2010) and spoke with a cofounder of Bain, one of the initial strategy firms. They shared that once they achieved initial successes with marquee clients, they found they needed to tie together what they had done into a cohesive framework. Instead of leading with a mishmash of confusing models, methodologies, terms, tools, and concepts, they spent time packaging what they had done into an easily understandable framework. Each of them used marketing experts to help develop their frameworks and test with their target markets.

An example of the *process management framework* is shown in Table 1. This framework is taken for granted today; but when elements like the core principles were first introduced, they represented dramatic paradigm shifts. Examples of such “mind-bending” core principles include “zero defects,” “the customer is always right,” and “employees closest to the work are best positioned to improve the processes.”

Table 1 also shows the first draft of an equivalent model, the *Organizational Behavior Management framework*, that my colleagues and I developed. It provides an example of how we might create a paradigm shift for leaders who are considering behavior-based improvements. I know this framework would have helped in my discussions with the international teams overseeing the two projects at the pharmaceutical company referenced earlier. Further, a similar comprehensive and easily understandable framework could be developed for applied behavior analysis in general, so

Table 1 Comparison of process management framework and equivalent organizational behavior management (OBM) framework

Frameworks	Process management framework	Organizational behavior management framework (draft) ((C) 2015 ChangePartner Healthcare, Inc.)
Core elements	<p>A <i>business process</i> is a collection of related, structured activities or tasks that produce a specific service or product that creates value for a particular customer or customers. It has clearly defined boundaries delineated by inputs and outputs.</p>	<p><i>Behaviors</i> are things people say and do. Vital Behaviors™ are the critical few behaviors that are highly correlated with achieving targeted business results and will not occur reliably without changing the supporting environment, especially the balance of consequences. Vital Behaviors can be relatively straightforward (e.g., safety procedures) or extremely complex (e.g., decision-making) and they can be identified at any level of an organization.</p>
Management processes	<p><i>Business process management systems</i> improve processes continuously by focusing on business effectiveness and efficiency while striving for innovation and flexibility. Such systems are often deployed as “programs,” though they are sometimes embedded as permanent support groups (initiatives or departments deploying Six Sigma, Work-Out, Lean Sigma, TQM, etc.)</p>	<p><i>Behavior management systems</i> ensure that Vital Behaviors happen reliably across an organization to produce the results agreed to in strategic and business plans, while allowing for behavioral innovation and flexibility. Such systems are often deployed as projects until new behaviors reach measurable habit strength, or as part of an ongoing management process involving behavior measurement, observation/monitoring, feedback and coaching, behavior-based root cause analysis, and barrier removal.</p>
Core principles (sample)	<ul style="list-style-type: none"> • All work is a process • All processes have characteristics that can be measured, analyzed, improved, and controlled • People closest to the process are best positioned to identify solutions • The definition of quality is conformance to product and customer requirements • The system of quality is prevention, not inspection • The performance standard is zero defects per opportunity 	<ul style="list-style-type: none"> • New results always require new behaviors • Some behaviors are more vital than others in producing the desired outcomes • Results can be improved by reducing the variability of Vital Behaviors and improving their reliability • Behavior-based problems are often situational • Vital Behaviors can be changed by analyzing and changing the situation • People closest to the situation are best positioned to develop solutions • Antecedents initiate behaviors, but consequences sustain them • Sustainable behavior change occurs when the right mix of consequences occurs for individual performers, from intrinsic to extrinsic, financial to non-financial, individual to organizational, positive to negative • Personalized feedback is one of the most powerful consequences available in organizations, and the most underutilized or misused • Everyone in the organization has a vital role in providing performance feedback and removing barriers to performance. • The goal is self-direction and self-motivation • The performance standard is 100 % successful behaviors per opportunity

Table 1 (continued)

Frameworks	Process management framework	Organizational behavior management framework (draft) ((C) 2015 ChangePartner Healthcare, Inc.)
Tools (sample)	<ul style="list-style-type: none"> • Process flowchart • Pareto analysis • Root cause analysis • Control charts • Structure trees 	<ul style="list-style-type: none"> • ABC analysis • Pinpointing Vital Behaviors • Behavior-based checklists • Interobserver reliability • Standard celeration charts

our science could be easily understood by the general public and easily compared to other approaches.

Smith Strategy 2: Personally Communicate a More Contemporary, Sophisticated Message

As David Freedman points out, we need a “reboot” of behaviorism to make it resonate more with the general public. To learn how to do this, my colleagues and I turned to Dr. Grant McCracken, an anthropologist who studies the intersection between contemporary culture and commerce. He helped us understand how times have changed since applications of our science rose to prominence more than 50 years ago.

McCracken observed that, in today’s complex and overwhelming world, people out of necessity gravitate toward thought leaders who take massive amounts of information and organize it into manageable action steps. People also like to have complex things brought to life through storytelling. That is why authors like Duhigg, Fogg, and others have become so popular. It is not because they are “experts” in behavior analysis; it is because they have packaged a message that people are hungry for, in a way that people can easily digest.

Even if these authors were experts trained in behavior analysis, McCracken said that would not be enough. People no longer take an expert’s word as gospel. “Networks of input” have replaced traditional hierarchies of expertise. Even science no longer adds the legitimacy it used to. As a result, people do not believe there is a single solution to a given problem. Instead, they want to co-create and constantly iterate with someone they can relate to and learn with. In today’s world, self-management and self-learning are viewed as critical skills. The “expert” is more of a “guide” who people trust to help them make their own wise choices.

This all makes sense when you consider interactions between patients and their physicians. Unlike the past years, most people now consider their physician to be only one source of input regarding their healthcare strategies, albeit a significant source. They search the Internet, consult with friends, and access other resources to determine solutions that will work for them. They do not want their physician to get upset when they bring in printouts from a recent Internet search. They want a physician who listens to them, educates them, and co-creates a personalized, workable solution. Most importantly, they want a physician who treats them as an equal in the decisioning process.

We have all been in that physician’s shoes, where the client does not want to do what we recommend. We feel that our expertise is being questioned and our training disrespected. But if we act on those feelings, we will pay the price. The culture is

demanding a more collaborative approach. We should take comfort in the fact that people respect us enough to be chosen as their point person in creating and implementing a behavior change plan that they could not do on their own.

Over a year and a half, I worked with McCracken and behavior analysts internationally to identify specific ways to update our core messages (please see Acknowledgments). Table 2 contains examples of how our messaging can be made more contemporary.

As shown in Table 2, behavior analysts need to be prepared to push direct comparisons between old behaviorism and contemporary behavior analysis, in addition to pushing comparisons between our approach and others as recommended by Freedman. There is no need to shy away from our past. There is no shame in acknowledging that early applications of our science did take place in more controlled settings, such as schools, state hospitals, and prisons. Indeed, researchers were pleased to find that the fundamental laws of behavior derived in the laboratory held true in these applied settings.

As in other sciences, increasingly more sophisticated applications evolved over time, and the laws still held true. Today, behavior analytical principles and methods underpin behavioral economics, behavioral medicine, and behavior-based safety. The latter has been particularly successful in industries that require high reliability, such as airlines and nuclear facilities. All of these applications now have decades of evidence-based results proving that the fundamental laws of behavior work regardless of the setting.

As behavior analysts, we should capture and share stories of “behaviorism in everyday life.” We should especially focus on those stories that illustrate more sophisticated applications. For example:

- How many know that behavior analysis techniques have helped a million children learn to read with only minimal support from teachers? (J. Layng, personal communication citing data from Headsprout, Inc., April 1, 2014.)

Table 2 Examples of ways to make our messaging more contemporary ((C) 2015 ChangePartner Healthcare, Inc.)

Core messages	Old behaviorism	Contemporary behavior analysis
Focus of behavior change	Good for simple behavior change of animals and children in controlled environments, not adults	Works for human behavior change across the lifespan in all its complexity, including thoughts and feelings
Control	Expert-driven, manipulative	Based on personal choice and self-mastery
Rewards	Primarily extrinsic (money, trinkets, etc.)	Involves a sophisticated blend of personalized motivators, including self-reinforcement
Behavior feedback	Hierarchical	Based on social networks
Behavior sustainability	Short-term and targeted	Durable and adaptive to new life circumstances
Program appeal	Difficult and off-putting	Easy-to-use and fun
Approach	Prescriptive	Personalized

- How many know that research on food substitution from the 1960s has helped obese individuals today make permanent lifestyle changes by finding foods that are healthier, yet meet their personal preferences of hot/cold, chewy/crunchy, etc.? (M. J. Cameron, personal communication, May 27, 2014.)
- How many can tell the story of how behavior analysis helped doctors learn to detect abnormalities in breast tissue to detect cancer at earlier, more treatable stages? (H. S. Pennypacker, personal communication, July 6, 2014).

As behavior analysts, we have tremendous successes to share that illustrate the differences between old behaviorism and contemporary behavior analysis. We could use crowd-sourcing technology to gather, test, and refine those stories. Part of the testing process would be for us to engage as individuals to test core messages in our markets and report how well the messaging and stories were received.

Smith Strategy 3: Use Technology to Achieve Scale (This section (C) 2015 ChangePartner Healthcare, Inc.)

Over the past 30 years, my colleagues and I crafted OBM interventions that were dependent upon the analytical and consulting skills of the professionals we had on the ground. To be successful, we required a lot of in-person consulting support. Our teams worked daily to provide expertise in:

- Pinpointing the right behaviors needed to achieve a wide variety of targeted business results
- Analyzing which environmental influencers needed to be added or changed, and then helping to make that happen
- Training leaders and employees to deploy behavior management systems involving observation, coaching, behavior and results metrics, etc.

Our systems were laborious, but they always resulted in returns on investment (ROI) that more than justified the cost and effort. However, they were not scalable. For this reason, I was unable to help the pharmaceutical CEO because we lacked the staff to assist leaders in more than 75 manufacturing plants. Nor could we train behavioral consultants quickly enough to support the behavior changes needed by physicians across a national healthcare system. Our intense, in-person interventions were simply too costly on a large-scale basis.

So, I began a quest to determine how we could use technology to achieve scale. I talked with technology experts and behavior analysts across the country to determine whether technologies existed that could meet the challenges posed by the pharmaceutical CEO. It became clear that no single solution existed, but a system could be built through the sophisticated combination of a select few, readily available technologies. To be widely accepted, the system would require some of these technical qualities:

- A robust, cloud-based, multiclient, and multiplatform mobile web app
- Able to quickly crowd-source “baseline” behavioral checklists and instantly disseminate updated, multilingual, dynamic checklists, and related training, globally
- Capable of customizing checklists for local use, based on unique processes, roles, equipment, etc.

- Collect real-time data on Vital Behaviors of employees and observers during initial training, ongoing practice, and real-time performance
- Fully integrate with existing management databases to automatically correlate checklist behaviors with targeted results
- Provide e-support infrastructure to assist in developing behaviorally specific checklists, train, monitor compliance, and rapidly intervene when problems arise—using minimal manpower

Also, to be widely accepted, the system would require some of these user-interface characteristics:

- Minimal training for users to become expert operators
- Visually pleasing and “friendly” to everyday users, not developed just for administrators or expert users
- Capable of integrating and branching multiple checklists to more closely match real work
- Include just-in-time interactive video, online learning support, and problem-solving support
- Accommodate self-observations and remote observations for virtual coaching
- Take advantage of new technologies, such as Radio Frequency Identification (RFID), the Apple Watch, and Google Glass, to provide real-time prompts, guidance, and reinforcement to performers

To achieve the scale, we must create technology-based systems that collect behavioral data as effortlessly as possible. These systems must be as easy to use and as addictive as the iPhone. Of course, that will not be enough to create large-scale behavior change with little or no human intervention. We also will need to use machine learning, a subspecialty of artificial intelligence, to embed the science-based algorithms that highly trained behavior analysts use in their work. Machine learning will help us automatically devise algorithms to *automate* the process of helping individuals master and apply behavior-change strategies and techniques until they succeed. Machine learning is based on inputs that include real-time observation, outcome data, examples, experience, laws of behavior, big-data analytics, and instruction. Machine learning uses data from the past to recommend and reinforce future behaviors. Sample requirements for a system that incorporates machine learning include:

- Continuously searches big databases and data contributed by individuals and organizations to pinpoint the complex interrelationships of multiple variables that influence behavior
- Automatically converts data-based, actionable insights into highly accurate recommendations, automated feedback, and decision support for shaping individual behaviors and organizational culture change
- Provides timely cause-and-effect insight for individuals and leaders that relates what they are doing to the results they achieve
- Continuously learns to help individuals adapt their behaviors to changing conditions over time

Done properly, machine learning provides the means for users to have an expert behavior analyst on call 24/7, in a cost-effective way.

Discussion

There has never been a more opportune time to position behavior analysis as “the contemporary science of what works in behavior change.” There is a widespread understanding that behavioral issues underpin some of the world’s most challenging issues. The public is hungry for solutions that work.

We know our science works—and our data clearly show it. But as we have learned from cultural experts, data and science are not enough. We need to be proactive in overcoming the perception problems that exist about our science. We believe the following six actions will help position behavior analysis in a positive light:

1. Reframe behaviorism in a more resonant format for public consumption, while adhering to the core principles and techniques
2. Push sharp, direct outcome comparisons between behavior analysis and its rivals, in the simplest, clearest form
3. Find ways to play up the “warm and fuzzy” side of behavior analysis to make it more inviting and “human”
4. Create a cohesive, easily understandable framework for behavior analysis
5. Personally communicate a more culturally relevant and sophisticated message, including direct comparisons between “old” behaviorism and contemporary behavior analysis
6. Use technology to achieve scale

To accomplish these six steps, we will need the help of professionals in marketing and technology. Marketing experts can help us repackage what we do in ways that draw the public toward us. It is no accident that very few popular behavioral authors are trained as behavioral scientists. Charles Duhigg is a journalist, Daniel Pink obtained a J.D. from Yale Law School, and Chip and Dan Heath have business degrees. What they have in common is that they are world-class communicators. For example, Charles Duhigg won the Pulitzer prize for explanatory reporting in 2013.

Behavior analysts are trained to use precise language in communicating with each other. That precision gets in the way when we try to communicate with the public. To get our message out, we will need to collaborate with marketing professionals. They can help us determine which claims are likely to resonate with readers, and then help us play to those claims that are important, useful, and true.

But we need to go beyond simply engaging a marketing organization. We will need to conduct a contingency analysis to identify specific marketing professionals who are truly “invested” in helping us over the long term. For example, we will need to consider the benefits to them beyond compensation, how we can elevate their careers and position them as legitimate behavioral experts, and how we can visibly welcome them into our inner circles. In turn, we must commit to listening to them as collaborators, rather than shutting them out because they lack formal training in behavior analysis.

It is precisely this collaborative spirit that first brought to my attention David H. Freedman. Freedman is a science writer, book author, Consulting Editor to Johns Hopkins Medicine International, contributing editor to *The Atlantic* and *Inc.* magazines, and contributor to *Scientific American*. His daughter is a doctoral student in behavior analysis, with a specialty in autism. Even though autism is one of the most respected applications of the science, Freedman saw how difficult it was for his daughter to overcome the perceptions associated with behaviorism. As a result, he became interested in learning more about the science.

I approached Freedman when I encountered an article in *The Atlantic* that he had written, *The Perfected Self* (2012). I realized that he could help position behavior analysis as the solution needed by the pharmaceutical CEO.

As I delved deeper into the issues of the pharmaceuticals CEO, I recognized a great need in healthcare to improve provider performance and thus attain better patient safety and health outcomes. I also saw that a technology-supported solution would be necessary to effect broad-scale behavior change in such a complex environment. I assembled technology experts to develop what my company calls a Behavior-Based Healthcare Delivery Excellence™ system, which will be underpinned by Adaptive Behavior Analytics™, or machine learning. My team is now creating a technology-supported, easy-to-use platform to guarantee compliance to standards of care at scales previously unheard of. My colleagues, a purposeful mixture of technology experts, behavior analysts, healthcare providers, and marketing professionals, believe that this technology platform will drastically reduce—or even globally eliminate—the behavioral root causes of poor patient outcomes.

Once this technology is proven in healthcare applications, my team and I plan to make it available to behavior analysts for research in a variety of behavior-based, societal challenges. From a commercial perspective, the intent is for the system ultimately to be as addictive and easy-to-use as today's smartphones, and as helpful as having a full-time behavior analyst at the ready until behavior change "sticks." The new technology-based system, combined with a contemporary, engaging way to describe its underlying science, should go far toward positioning behavior analysis as the premier, contemporary science of what works in behavior change.

Acknowledgments CLG, Inc. and the Cambridge Center for Behavioral Studies (CCBS) supported an initiative to engage the behavioral community in assessing and improving the public perception of behavior analysis. The work team comprised Dr. Julie M. Smith (Cofounder and CEO, ChangePartner Healthcare, Inc.; formerly with, and Cofounder of, CLG), Dr. Philip N. Chase (Professor of Psychiatry, University of Massachusetts Medical School; formerly Executive Director of the Cambridge Center for Behavioral Studies), Dr. Carolina Aguilera (CLG), Dr. Kevin Munson (Leprino Foods; formerly with CLG), David H. Freedman (science writer), and John T. Landry (business writer). Hundreds of behavior analysts contributed to ideas in this paper, including many CLG consultants and clients. Additional experts provided input, including Dr. Grant McCracken (Berkman Center for Internet & Society at Harvard University), William O'Connor (Damen Jackson Consulting), Jamie Berdine (CLG), and Dr. Mikel J. Harry (Six Sigma Leadership Federation). Audience input was solicited during presentations at the California Association for Behavior Analysis, Florida Association for Behavior Analysis, Association for Behavior Analysis International, Cambridge Center for Behavioral Studies, and the University of Nevada, Reno. Many concepts in this paper were developed as a result of the behavioral community's participation and are available for use by anyone to improve the perception of our science.

Conflict of Interest The author declares that she has no conflict of interest.

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