

# On Autonomy, Generalization, and Problem-solving

By Bobby Newman, Ph.D., B.C.B.A.

## About This *OARacle* Contributor

Bobby Newman is a Board Certified Behavior Analyst and licensed psychologist. He is the past president of the Association for Science in Autism Treatment, past president of the New York State Association for Behavior Analysis, and is on the adjunct faculty of Queens College. Bobby is the director of training and research at Association in the Metroarea for Autistic Citizens (AMAC) and supervising psychologist for Effective Interventions, Inc. His books include *Behaviorspeak*, *When Everybody Cares: Case Studies of ABA with People with Autism*, *Words From Those Who Care*, *Graduated Applied Behavior Analysis*, *No Virtue in Accident* and *The Reluctant Alliance*. He has consulted and designed programs for children and adults diagnosed with autistic-spectrum disorders all over the United States as well as in Canada, Ireland, Northern Ireland, and England. Dr. Newman has been honored for his work by several parents' groups. He has hosted a regular radio call-in program and lectures all over the world.

Last Halloween, I helped to supervise a sleepover party for the children at the Unitarian-Universalist church my family attends. I had been wrapped in toilet paper by the kids during the “make a mummy” contest, guided numerous kids through the dark to the hallway where the bathroom was lit up, and finally watched the movie end and the kids settle into their sleeping bags for the night.

Now, I thought to myself, it was time to get some program writing done on my laptop. A good five minutes of concentration time in, a small voice asked me what I was doing. I looked up from the screen and saw one of the precocious six-year-olds who had attended the party. I always got the vague feeling that I would be working for some of these kids one day. I also had the strange feeling of being the Grinch and looking at little Cindy Lu Hoo, even if I wasn't stealing Christmas stuff. You just weren't supposed to have deep conversations with such young children this late at night.

I explained that I was designing some plans for a project at work. We had created a “snack cart” business at the agency where I consulted, a project that I hoped would settle into a self-sustaining enterprise that would employ some of the people diagnosed with autism who wanted to work in the business. I was helping to design programs to teach some of the people who were going to work there how to do their jobs.

“Why?” came the inevitable question. It was a question that would be repeated many times during our conversation that night.

I said something to the effect of: “Well, some of the grown-up people who are being served by the agency really weren't taught the skills that they need to hold a job when they were in school. They never learned how to ask for help if they didn't know what to do, or how to follow the schedules, or how to perform some of the job skills, or things like that.”

“Why not?”

I told her I wished I had an answer to that question.

“But if they never learned how to have a job, how did the people at their schools expect them to be able to live on their own like other grown-ups?”

I did my best Shrek imitation: “A fair question.” I internally debated discussing what kind of life faces those who don't develop independent skills. It's a life where other people make all your life's decisions for you. Where will you live? What will be your (limited) choices of food? What will be your (limited) choices of recreation activities? When will you go to bed? With whom you will share your living space? How will you spend your days? As usual, the kid was way ahead of me and pointed out many of these facts to me. I nodded in agreement. The Unitarian-Universalist poster on the wall about respecting the worth and dignity of every individual provided additional silent assent.

## Stimulus Generalization

Whenever anyone asks me what the point of behavioral and educational programming is, my answer is always a quick “to build autonomy.” When someone has skills, they have choices. When someone lacks skills, they lack choices. In such a case, life’s decisions are inevitably made for the individual, and even if other people have the individual’s best interests at heart, there is just no substitute for being able to make one’s own decisions and living an independent life.

Now firmly hooked and thoughts of sleep gone, the little girl asked for more detail about what I was doing. I was writing about generalization, I said. Making up a pseudonym to protect privacy, I told her about one of the employees of the snack cart business who was able to perform many of the skills related to conducting the business but only while at the training site. When he moved from there into the “real world,” it became more difficult. I was working on what we would call “stimulus generalization,” the ability to perform a skill that has been taught under one set of circumstances in a new situation.

“Like being able to kick the kick-ball on the playground the same way that you do in the gym.” I agreed that she had provided a terrific example. Those of you who like more academic material can check out Harding, et al. (2004) for an excellent and equally fun example. Of course, you should go back to Stokes and Baer (1977) to see the defining paper on generalization and begin working your way from there, tracing the literature as it has developed and matured.

As is often pointed out, generalization of skills can neither be assumed, nor hoped or prayed for. Failure to generalize is often reported in the applied literature. You must explicitly program for generalization by teaching under the wide variety of circumstances and situations the person will face. Learning how to make change or sell the product in our training situation is one thing. Learning how to do it in real time in the hallway of the office building with a stranger is quite another. We cannot hope for or assume the generalization of the skill; we must program for it by teaching under a variety of teaching situations and stimuli.

## Response Generalization

“So will the person always do the same job? Or do that job the same way all the time? That sounds boring!”

Again my miniature, future behavior analyst was ahead of me.

“No, we try to help people to learn how to do all the jobs, and to mix up how they do the jobs so that they don’t get bored.”

In truth, this issue of response generalization is every bit as important as stimulus generalization. Think of George Carlin’s routine about saying good-bye to 20 people at a party. As you move down the line saying, “Okay, hey, take it easy....okay, hey, take it easy....okay, hey, take it easy,” you may seem a little uncreative (at best). If I remember the routine correctly, George announced that every month, whether he needed to or not, he would change the way he would say good-bye. People would then ask, “Didn’t you used to say “ok, hey, take it easy?” George would reply with something to the effect of, “Yes, I did, but not anymore. Now I say “FAREWELL! Farewell until we meet again! May the forces of evil become confused on the way to your house!” He finished the routine by noting that “people will remember you if you talk like that!”

While such flowery speech may not be necessary, or even always desirable, the comedy makes a good point. Boredom issues aside, it is true that some variety in behavioral responses is expected by the population at large. Perhaps even more importantly, someone who cannot vary what he or she is doing may have a great deal of difficulty adapting to changing situations. Our workplaces are in constant change. New technologies make old jobs obsolete or require new ways of performing old skills.

To think of this in concrete terms, what do you do when a transit strike makes getting to work in the old way impossible? What do you do when a computer that has never been used before is introduced to track inventory? How do you change over to a bar code system? How do you go about seeking out information that will allow you to adapt your behavior to new situations? What happens when a new

supervisor wants to change the way things are done? Again, for those of you who insist on academic references, check out an interesting example from Ludwig and Geller (1997).

Please note, of course, that these twin issues of stimulus and response generalization are ones that we all face, more or less successfully. If I may be allowed one of my characteristic “House, M.D.” moments, I often find myself discussing with staff members just how well they are generalizing their own skills. I remember one psychologist I was helping to train who would frequently ask questions regarding how to proceed with a given issue (a functional behavioral assessment or a curriculum modification, for example). After answering his questions appropriately several times, I eventually found myself responding to questions by saying “OK, now what did we do when we were in this exact same situation all those other times?”

My sleep-avoidant charge and I did not solve the problems of the world that night. We did agree, however, that people have to learn how to perform their old skills even when situations change and have to be able to change what they have been doing in order to suit new situations. Not bad for a guy who had been wrapped in toilet paper two hours before and a six-year-old who was three hours past her bedtime.

## References

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