STRAIGHT TALK About Autism

On Earning

Barry M. Prizant, Ph.D., CCC-SLP and Amy C. Laurent, Ed.M., OTR/L

Many programs for children and older individuals with ASD require that they earn participation in favorite activities, food items, and breaks as motivators for learning. In this issue's Straight Talk column, we take a critical look at this common practice.

In our school consulting, we regularly observe scenarios such as these:

Marissa, an energetic, bright-eyed four-year-old, is directed to sit at a table in her special education preschool classroom for her morning one-to-one activities. She is told by her therapist, "Now it's time for work." The therapist then arranges three pictures of the following items on the table: a favorite "Wiggles' CD, a puzzle, and a glass of apple juice. Marissa is then asked, "What are we earning?" She points to the picture of juice prior to beginning a receptive labeling activity in which she is required to point to pictures of objects that the therapist names. Each time Marissa responds correctly a smiley face is placed on a chart containing a sequence of three circles at the end of which is the picture of the apple juice. When the three circles are filled with smiley faces, Marissa is given a sip of juice. This same pattern is observed every 15 -20 minutes throughout the day whenever a new activity is introduced. Marissa's therapist explains that she would not do any of the work if she couldn't earn rewards. Her parents, however, have some concerns about this practice and report that Marissa does fine at home in most activities without earning rewards.

Marquette is a seven-year-old boy who has low-energy and demonstrates other indicators of a low-arousal bias—for example, staring episodes, moving slowly, and difficulty staying alert. His teacher introduces an activity involving a variety of requests, including imitating motor actions, pointing to body parts, and following directions for using common objects. Marquette complies with the first five requests, but then his attention begins to fade. He stares over the therapist's shoulders and focuses on a swing in the corner of the classroom. He slowly lifts up his hand, points to the swing and says, "sing, sing." His therapist responds, "not finished; five more to go and then you earn the swing." Marquette persists saying, "sing, sing" and his therapist repeats "five more to go" before resuming her questioning. Marquette becomes tearful and increasingly distressed, and drops to the floor crying. When the therapist was asked why she did not honor his request she said, "This program requires that he complete ten trials before he earns the swing," adding "even though swinging helps him focus."

Amir is a twelve-year-old middle school student who requires one-to-one support at times, even though he participates in group activities with some degree of independence. A star system is used in 10-minute intervals throughout the day to reinforce cooperative behavior. Hence, every 10 minutes when the timer beeps Amir's aide stops him from whatever he is engaged in so that Amir can earn a star. Each time he receives a star, he puts it in one of five boxes on his chart, and when all the boxes are filled, he is allowed to look at a magazine for two minutes. Amir rarely attends to his star chart and at times appears to be irritated with his aide's intrusion into his ongoing activities.

The Concept of Earning Rewards

In our experience, the practice of earning rewards is used more intensively and more inflexibly with children with ASD than with any other children. The often-stated justification for the use of tangible reward systems for individuals with ASD is that they are not as internally motivated to learn as other children are; nor are they motivated by social contingencies such as praise. The origin of the concept of earning as it is applied to individuals with autism is found in learning theory—and more specifically, operant conditioning—the foundation of what is now referred to as ABA.

The earning of rewards is underpinned by the belief that the consequences following a child's behavior are the primary determinants of learning; that is, that learning is under the control of external factors. The token economy, a common response system used in many ASD programs, is an extension of basic learning theory principles. Tokens are meted out when the child engages in the desired behavior, as was seen with both Marissa and Amir. Earned tokens are accumulated across activities or time periods and are later "cashed in" for a preferred activity or item (the reward). These systems are often compared to receiving a paycheck. You work to receive your reward. (We have some difficulty with this often-used analogy as we believe that other internal, motivating factors play a significant role in learning, such as one's sense of pride in achievement.)

Is Earning Rewards Necessary?

In our experience, "earning" rewards through the implementation of reinforcement schedules and token economies is fraught with more difficulties and complexities than is typically acknowledged. Too little attention is given to the following questions when earning becomes a fundamental requirement of teaching practice:

❯ For whom and under what circumstances is a reliance on earning appropriate?

❯ Why is it that despite recommendations that practitioners move as quickly as possible from artificial to more natural rewards, that this rarely happens?

❯ Can an inflexible reliance on earning actually cause problems?

We will approach each of these questions by discussing the difficulties that we observe with earning systems across programs. That said, we also will discuss why, at times, earning seems to be helpful for some children.

For whom is earning appropriate?

On the surface, earning seems like a fairly simple and straightforward strategy; however, it is important to consider for whom earning is appropriate. The paycheck analogy gives us insight into the prerequisite developmental abilities that earning requires. To illustrate, children must be able to be motivated by external rewards, and they must have the symbolic ability to know that a token represents the potential to "buy" something preferred in the future. In addition, they must demonstrate the self-regulatory ability necessary to delay gratification, as well as the ability to self-monitor and inhibit behaviors. Finally, they must understand and internalize behavioral expectations—for example—the rules set by adults, as well as the particular reinforcement schedule being used (i.e., when and how often a behavior is being reinforced). When viewed from

this perspective, it is easy to see that earning systems are, in reality, quite complex. Hence, they often exceed the developmental abilities of children with ASD given their communication, learning, and emotional regulation challenges.

How useful is earning when there is a failure to move from artificial to more natural rewards?

Given that Marissa's parents report that she does not demonstrate the need for rewards at home, it is questionable as to whether rewards are necessary at school, especially at the level of intensity at which they are meted out. When professionals rely on token economies and artificial reinforcement excessively, there is great potential for setting up the child with ASD to overly focus on non-social tangibles to the detriment of building secure and loving relationships with others. In our experience, even though a basic tenet of behavioral intervention is to move as quickly as possible from artificial to natural reinforcement, including social engagement and positive praise, we find that this shift rarely happens. We believe that when tangible reinforcers are deemed necessary, it is critical to move to more natural, relationship-based supports as soon as possible, such as partners being highly responsive to communicative attempts and supporting children when they are dysregulated. These supports not only sustain a child's learning, but also help to develop trusting relationships, which then become motivating factors for children to remain engaged and participate in learning activities.

Can an inflexible reliance on earning actually be the cause of problems?

We believe that the answer to this question is an unqualified yes. Consider again the example of Marquette cited previously. His attempts to request the item he desired (swing) were ignored—as were his signals of dysregulation—in deference to the rigid reinforcement system that dictated the practitioner's behavior. This lack of responsiveness to spontaneous communicative attempts does little to promote genuine communication or establish trust. In Amir's case, earning systems and the schedule of reinforcement actually interfered with his ability to participate in activities and stay engaged with peers over extended turns.

Guidelines for Using Earning Systems

To be clear, we are not advocating the abolition of earning systems when they are used judiciously to motivate participation and to help children learn. Our concern is with the over-reliance on their use; under-recognition of their need to be developmentally appropriate; and the lack of acknowledgment that excessive or

inappropriate use of earning systems may actually cause harm. It is from this perspective that we offer the following points for parents and practitioners to consider when making decisions regarding the implementation of systems for earning.

1. Consider alternatives to earning to avoid over-reliance on such systems. In our experience, programs that succeed with minimal use of earning systems incorporate the following practices:

   • High levels of responsive interaction that support the development of trusting relationships

   • Use of fun and pleasurable learning activities to create shared, positive emotional memories and experiences

   • Infusion of motivating materials, topics, and activities of high interest into learning activities

   • The use of functional and meaningful learning activities that support active engagement and experiential learning

   • Scheduled breaks with built-in choices

   • Activity structures with clear predictable routines and end points, marked by visual supports when deemed helpful

2. Children should never have to earn what is regulating and organizing. Activities that are developmentally appropriate, and that support engagement and regulation do not require the use of artificial reinforcers or rewards.

3. Avoid practices that are often associated with heightened anxiety and dysregulation. For example, ignoring a child's signals of dysregulation due to an inflexible adherence to teaching protocols, or using response cost systems that involve the withdrawal of previously earned tokens may be the triggers for increased dysregulation.

4. Be flexible in implementing systems. When a child is clearly motivated by activities or engagement with peers there may be no need to use artificial reinforcers. Likewise if a child changes his or her mind about a previously selected reward, the new choice should be honored.

5. Systems of earning may be a helpful adjunct in supporting a child's active participation and learning under the following circumstances:

   • The child demonstrates the cognitive and symbolic abilities to understand and be actively engaged in using the system.

   • The system helps the child to understand number of steps or time to completion and marks progress toward a larger end goal

   • The conferring of special privileges is intended to support motivation and focused attention. Such privileges should not be withheld if they serve the primary purpose of supporting emotional regulation

   • Measures are taken to move to natural reinforcers and to build trusting relationships and self-determination. The ultimate goal is to help children to be internally motivated,

to be actively engaged in activities, and to feel competent and secure in their relationships, rather than to be under the "control" of external, tangible contingencies.

Concluding Comments

It is necessary to keep these points in mind when considering the need for, and use of systems of earning as, taken together, they will go a long way toward supporting a child's availability for learning and engagement. They will also enable us to strike that delicate balance between providing the external support that may be necessary to entice and motivate a child to learn, and at the same time, helping him or her to build the internalized, individual capacities that lead to a better quality of learning and to more positive long-term outcomes.

Bio
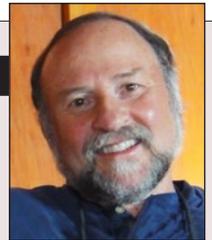
Dr. Barry Prizant has more than 40 years experience as a scholar and international consultant for individuals with ASD. He is an Adjunct Professor, Brown University, and Director of Childhood Communication Services, a private practice. Barry is co-author of The SCERTS Model, now being implemented in more than a dozen countries. He has published extensively and presents internationally. Over the past 20 years, he has facilitated an annual weekend retreat for parents of children with autism. Barry's work has received widespread recognition including the 2005 Princeton University-Eden Foundation Career Award in ASD, the 2013 "Divine Neurotypical Award" of GRASP and the 2014 Honors of the American Speech-Language-Hearing Association. He was an invited speaker for the 2013 World Autism Awareness Day at the United Nations. Barry's forthcoming book, Uniquely Human: A Different Way of Seeing Autism, will be published in 2015 by Simon and Schuster. For further information, go to www.barryprizant.com, or contact Barry at **Bprizant@gmail.com**.

Amy C. Laurent, Ed.M, OTR/L is a pediatric occupational therapist who holds a Master's degree in Special Education. Currently in private practice, Amy specializes in the education of children with autism spectrum disorders (ASD) and related developmental disabilities. The majority of Amy's work involves collaborating with and supporting school teams and families. Her consultative services focus on the creation of educational programs and environments that facilitate children's active engagement and learning at home, in schools, and throughout their communities. The SCERTS Model, of which she is a coauthor, along with differentiated instruction and developmental theory guide her practice. She works with educational teams in K-12 schools, pre-schools, and early intervention programs. Amy is also an adjunct faculty member at the University of Rhode Island and Emerson College in Boston, Massachusetts. Her private practice is affiliated with Communication Crossroads, Childhood Communication Services, and Childhood Communication Seminars. Website: **www.amy-laurent.com**