

**BEING AUTISTIC IS NOT
A BEHAVIOR PROBLEM**

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A Critique of Applied Behavior Analysis
in the Era of Neurodiversity

DANIEL B. LEGOFF, PHD



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*Being Autistic is Not a Behavior Problem:
A Critique of Applied Behavior Analysis in the Era of Neurodiversity*

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DEDICATION

To Christine, for reminding me to be my best self every day.

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INTRODUCTION

*Psychology is a science, and teaching is an art;
and sciences never generate arts directly out of themselves.*

—William James

This book is about being autistic, which is different from being diagnosed with autism. The current diagnosis of autistic disorder—or autism spectrum disorder—is not based on a thorough understanding of the condition, nor do the diagnostic criteria give healthcare and educational professionals any insight about the experience of being autistic. There are many professionals who want to help both autistic individuals and the autistic community creatively contribute to and benefit from social and cultural systems. From their point of view, being autistic is a valuable and unique experience because it contributes diversity and creativity to the adaptive potential of our entire species. Understanding the experience of being autistic is also important to anyone who might want to help autistic people since it is their life experience that we are trying to improve. Healthcare and educational professionals who are not primarily interested in improving the quality of life of individuals who lead autistic lives may be offering diagnoses and interventions which seem to serve the purposes of those professionals.

There is a community of parents and professionals who recognize the importance of understanding and helping individuals who are autistic to adapt and cope with social challenges, who also value their unique contributions to the creativity and diversity of our communities, cultures, and economies. Those parents and professionals will probably appreciate the information

and ideas in this book. Some autistic people themselves, and some autistic professionals, may agree with parts of this book, and perhaps even feel somewhat understood. There are also many other parents and professionals who believe that being autistic is just a problem that needs to be fixed.

The research and professional publications on this topic generally fall into one of two categories: neuroscience research which tries to explain what causes children to have autistic brains and applied research which offers to change autistic behavior by changing the environmental events that control it. These approaches are both *reductionistic* models because they try to explain complex events using simple underlying principles, and they are *deterministic* models because they try to explain actions and events as being the result of influences other than the intentions of the organisms themselves or the whole systems in which those organisms participate. The result has been that the current scientific literature which explains what causes autism focuses on finding differences in specific brain mechanisms which differ in autistic and typical children, while the literature on how to help children who are identified as autistic focuses on changing events in their environments which affect their behavior. Neither approach takes into consideration the irreducible wholeness of what being autistic is like for the individual or those close to them, or that autistic individuals have at least some capacity to choose how they want to live.

For many reasons, modern scientific concepts have moved away from reductionistic and deterministic models and theories, towards understanding natural events as complex systems. These models emphasize that life is best understood as a unique, creative, and self-sustaining mode of existence which has both predictable and unpredictable elements, and not simply as a series of cause-effect relationships or the predictable consequence of its physical elements. Whether they are studying a cell, or an entire ecosystem, scientists today are aware that organic systems have the capacity for learning from their experiences, and adapting to stay alive, reproduce, and participate in their environments in ways which support not just their own survival or that of their offspring, but the survival of the entire system of life on this planet. This may seem vague and hard to visualize, but once systems models are accepted and utilized in explanatory ways, they quickly become intuitive since they are in fact the source of our own complex and systematic ways of thinking. In other words, understanding events around us as linear cause-effect relationships is easy and intuitive, but understanding how life as a complex system

emerged and is maintained by creative, self-sustaining systems is more valid and valuable, and therefore worth the extra effort.

Living systems can be complex and difficult to understand without knowing a lot about many fields of science because they function at many levels at once, each with its own set of rules and operations, such as physics, chemistry, biology, neurology, psychology, sociology, and economics. Trying to understand such complex entities as children, however, requires us to consider their biological, interpersonal, cultural, and historical contexts and how children develop and grow by being a participant in those systems. The experience of being a child is the holistic and emergent outcome of all these systems and cannot be understood by examining them in the context of only one. It is also not possible to use a single principle or set of principles to predict or control the actions of any organism because organisms operate in dynamic complex open systems, not closed, deterministic ones. If we choose to observe and interact with organisms under laboratory conditions to identify principles we can use to predict and control them, we may be misled about how they operate in their natural ecosystems. More importantly, we will be devaluing and distorting both the life experience of organisms, and the complex, open systems in which they participate. This view is even more true for complex organisms like human children, not simply because they have more complex brains and ecosystems like families, culture, and society, but also because humans are inherently creative, especially children.

The genetic and neuroscience models of cognitive, social, and adaptive development in typical and autistic children is not the central topic of this book, however. This is largely because those models are not currently being applied to understanding or helping autistic children. What developmental neuroscientists are discovering about the relationship between the developing human brain and social functioning in children will be the topic of another book, and that information may be helpful in determining how we might be helpful to children who are learning how to adapt to increasingly complex sociocultural systems. This book is focused on the more immediate issue of behavioral models because those are currently in widespread use, despite being based on a reductionistic, deterministic model which is not consistent with modern theories within human sciences.

One of recurrent themes in this book is the illogical arguments and misleading language used in research studies by those who promote applied behavior analysis (ABA). As will be discussed, the claims regarding the benefits

of ABA for autistic children derived from scientific evidence is typically both misleading and overstated. Despite its lack of scientific merit, individuals who are invested in ABA as a methodology have created a large and lucrative autism-related services market. The field of behavior analysis has grown rapidly following the publication of a series of unverified studies which were not able to be replicated, and were published by a handful of affiliated researchers, most of whom are now successful entrepreneurs. It would be unreasonable to be suspicious of ABA services simply because they are profitable, or solely because the theoretical and scientific basis for it is weak. Many forms of human service do not have a clearly established scientific basis or coherent models which explain them. That is not, however, how ABA providers market their services to the public. Behavior analysts claim that their services are “evidence-based,” with the implication that the evidence they have to offer is scientific.

To understand the implications of using ABA as a model of intervention, it is necessary to consider the philosophical viewpoint, or belief system, from which it operates. Behavior analysis is based on the premise or scientific hypothesis that the actions of humans and other organisms are determined by their external consequences. The ABA model explicitly argues that the inner workings of organisms—including both animal instincts and human conscious experiences such as intentions, goals, beliefs, or ideas—are *not* what ultimately determines the actions of those organisms. Despite our belief that we have free will and choose what we say and do, ABA insists that it is the external consequences of actions (positive or negative outcomes), which ultimately determine future actions. This is the central tenet of the philosophical viewpoint put forward by B.F. Skinner’s *radical behaviorism*, which is the model on which ABA is based.

Skinner argued that although thoughts, feelings, goals, and beliefs were verifiable and meaningful experiences, they were not what determined our actions. In his view, our internal experiences were distractions, and not the ultimate causes of behavior. This is a belief system which Skinner developed and promoted as a scientific paradigm in the middle of the last century using evidence from research with animals which he called the *experimental analysis of behavior*. This model was unique in its approach, as well as in its language and ideas, and was not consistent with the main paradigms or scientific models of development, learning, and psychopathology at the time. Skinner did not base his model on that of behavioral scientists who came before him,

which led him and others to label this approach as radical. Most other behaviorists used a combination of laboratory findings, field observations, and the emerging literature on psychometrics (psychological testing of intelligence and personality traits) and clinical interviews. They attempted to integrate their animal and human behavioral research findings with other verifiable theories and research outcomes within the general field of scientific psychology. Skinner preferred to use his versions of experimental designs which became principles of behavior change strategies. Skinner also authored philosophical papers about the implications of his animal laboratory studies for human learning, behavior, education, and social systems, which are classics in the field of behavioral psychology, but for most psychologists and other human science researchers, are of historical rather than scientific interest.

Skinner's philosophy of radical behaviorism started with generating a set of principles which described how behavior could be shaped by its consequence, which he called *operant conditioning* to distinguish it from the previous models of classical conditioning described by the original founders of behaviorism, John Watson, and Ivan Pavlov. In this way, though, Skinner's methodology also shaped his theory and vice versa. The experimental analysis of behavior was specifically designed by Skinner to ensure that the findings would be consistent with his theory, but he also tailored his theories to explain the results that were most likely based on his methods. In other words, the only place to observe and understand Skinnerian operant conditioning is in a lab built and operated within the specific guidelines set by Skinner for that purpose. In that sense, operant conditioning was a phenomenon that existed only in operant conditioning labs, and only ones that were carefully constructed and operated so that the expected outcomes were obtained.

It was these quasi-experimental procedures which were used to show that operant conditioning effects could be used to monitor, control, and change the behavior of humans, including autistic children. In many fields of science, basic principles which underly complex processes can be understood by bringing the hypothesized processes under experimental control. Subsequently, once it is clear how those processes operate, they can be used to develop methods of intervention in the field. What Skinner was describing in his research designs, however, were not strictly experimental, nor did the results he described look anything like the typical behavior of either rats or humans. What Skinner described, and what numerous others replicated, was a method for artificially changing the behavior of animals who were placed

under highly controlled artificial conditions. The methods did not follow standard experimental procedures but used language which implied that they did. In other words, Skinner was not engaged in science. As we will see, this was somewhat predictable given that Skinner was not interested in understanding nature, which is the goal of science, but in demonstrating that the natural course of events could be overcome by exerting exceptional levels of artificial control over the experiences of organisms.

The field of ABA and its promotion of services for autistic children nonetheless asserts that the evidence from influencing the actions of animals under laboratory conditions can be systematically used to change the developmental trajectory and quality of life for autistic children. Demonstrating these outcomes has required implementing prolonged and highly invasive—even aversive—procedures, but the conclusion has been that ABA services can and consequently *should* be used to alter those children's actions. While this argument clearly violates David Hume's *is-ought* fallacy (basing ethical decisions on factual evidence), what is made clear in this book is that the factual evidence to support ABA is no stronger than its flawed moral reasoning. Manipulating the actions of children using positive and negative consequences of their actions is neither a morally nor scientifically acceptable model of education or therapy. The main advantage of the ABA model seems to be the benefit of completely avoiding consideration of the experiences of the subjects—both human and otherwise—since their internal experiences are what is being explicitly refuted as the source of their actions.

Skinner's model was designed to prove that his theory about human behavior was correct: that it was controlled by consequences, not internally experienced phenomena like thoughts, feelings, ideas, beliefs, or psychic conflicts (Skinner had a special distaste for Freud and psychoanalysis which was popular at the time). Since human experience—whether it involves happiness or suffering—is not relevant to human action, there is no reason to take it into consideration in determining how to educate or treat children. This is not an overstatement of the ABA-based approach to the treatment of autistic children, but is a statement of what is obvious but not stated in the promotion of ABA methods. Considered from this point of view—that ABA is a therapy model that ignores subjective experiences—it seems inexplicable that it has become such a widely used treatment for childhood autism; a condition known primarily for robbing children of the capacity to share their experiences with others.

The term *autistic* has become part of popular culture by now, but it was only about eighty years ago that Leo Kanner (1943) and Hans Asperger (1944) almost simultaneously used the same term to refer to a subgroup of otherwise healthy children who were referred for psychiatric treatment because they seemed to be uncommunicative, self-absorbed, and aloof. These children were also noted to display atypical interests, and had unusual, repetitive movements and vocalizations. Kanner and Asperger could only explain how these children came to be different from other children using the familiar model of mental illness; they concluded that autistic children must have a form of schizophrenia. The idea that children who were autistic had a mental disorder lasted for many decades before consistent research findings convinced developmental scientists that autistic children had a form of developmental disability and that their problem was primarily due to deficits in the development of appropriate social, communication, and adaptive coping skills.

The diagnostic criteria for autistic disorder in the diagnostic manuals have changed significantly over the years, with changes that have made it an increasingly broad and inclusive category. Those criteria have simultaneously also become increasingly based on observed behaviors as opposed to more qualitative assessment of social and language development. There are still no defined neurobiological markers for autistic disorder in the diagnostic systems, so the diagnosis has become increasingly defined by observation of the behavior of children suspected of having autism, rather than based on an etiologically informed perspective. The use of exclusively behavioral criteria significantly limits the opportunity for differential diagnosis or excluding other conditions which might impact social and communication development, resulting in an overinclusive diagnosis. As it turns out, the three primary symptoms of autism spectrum disorder (ASD), are determined by the degree of a child's development and learning within a sociocultural context: language, socialization, and cultural adaptability. Autistic children appear to be healthy and normal in almost every way, but they do not experience their social and cultural environment in typical ways, and they do not seem motivated to learn how to be like their parents or most other children. Given that the main difficulties faced by children diagnosed with ASD have to do with social learning and communication difficulties, it is not surprising that most researchers trying to understand autistic development have not spent a lot of time trying to interact with and understand their experiences from their perspective. Luckily, since the time that autistic conditions were first

identified, many adults with autism have come forward to talk about their experiences.

Any educational or healthcare initiative which aims to help autistic individuals should take into consideration their experience of that help and should include the goal of improving quality of life and adjustment from their perspective and based on their experience. Although most educators and developmental clinicians adopt the child and their family's perspective as the central reference point for offering their services, the ABA intervention approach was not developed by educators or clinicians. This model was derived directly from the laboratory-based experimental analysis of behavior using animal research subjects which resulted in ABA providers adopting the objective experimenter mindset which construes human clients as subjects in an experiment, which is not the viewpoint that other educators and clinicians have towards their clients. While some objectivity is necessary in most areas of healthcare and education, it is balanced with awareness of the subjective experience of the teacher-student or therapist-client relationship. That perspective is explicitly excluded by ABA which insists that behavior analysts adopt an objective observer role towards their subjects.

The initial and current absence of a therapeutic or pedagogical relationship necessitated by using an experimenter-subject model of intervention for autistic resulted from promoting the philosophy and profession of ABA, not the needs of autistic individuals. It is ironic and worrisome that ABA providers have decided to focus so much of their efforts on objectifying and dehumanizing those children whose main area of need is social connectedness. The move to define autistic spectrum conditions as objectively observable behaviors is clearly part of this opportunistic movement by an entire professional group to ignore the needs of a whole population of children in favor of describing their challenges as characterized by rates of autistic behaviors. It was perhaps largely since autistic children have difficulty communicating about their experiences with others that this model quickly became accepted. The rapidly mounting number of single-subject replication trials of ABA methods attested to the effectiveness of instrumental conditioning in changing specific, targeted behaviors. Just as the animals used in Skinner's experimental studies were never demonstrated to show improved adaptability in their natural environments, no one seemed particularly interested in the experiences of Skinner's rats and pigeons in his studies, nor in the ultimate outcome for those animals.

The evidence that the ABA movement has presented about the use of similar methods with autistic children has also failed to show that these methods improve a child's overall adaptability or quality of life, and little has ever been published about the experiences of autistic children during their treatment. What the public and those in charge of healthcare and educational funding read about ABA are "empirical" studies and "evidence-based," or "best practice" methods. The philosophy, theories, methods, objectives, and values of ABA are generally left out of those accounts. The research literature on behavior analysis, despite being used to market ABA-based services, does give us some insights about what it must be like to have one's way of *being* treated as a behavior problem. Being autistic is not a state of mind, or a mental disorder affecting a child's mood, anxiety, or habits, and it is not a psychological condition that results from experiences of loss or trauma.

There are commonalities in the experiences of autistic children which can lead to useful insights about strategies which might be efficiently used to improve the quality of their lives. Whether to avail themselves of some form of intervention should be up to the children and their parents to decide, and it typically is, even in the case of ABA services. When pediatricians and childhood mental health professionals diagnose a child with a mental disorder, however, parents are not typically going to decline treatment services. It may be difficult for them to accept the diagnosis, which is understandable, since the diagnosis itself is poorly defined and does not conform to how most people think about diseases or mental disorders. The most likely scenario is that the field of autism studies has gotten it wrong again, and autism is neither a developmental disorder nor a spectrum, but possibly the outcome of a range of diverse influences including genetic traits, early childhood social experiences, and life stressors. This formulation is often referred to as the diathesis-stress model, which is used to explain the etiology of conditions like schizophrenia, anxiety, and mood disorders.

What we can say for certain about the childhood experience of children who identify themselves as being autistic is that they did not identify with the other children who had behavior problems. Given that behavior analysts see no difference in the determining factors that result in autistic behavior and antisocial behavior, it is not surprising that those are the two populations for whom ABA services are most often provided. What is surprising, though, is that psychologists and educators who understand radical behaviorism and operant conditioning theory still agree that the best way to address problems

of social and moral development is using a method that denies the existence of both sociality and moral reasoning. Many non-behaviorists do hold the belief that internal change to belief systems, cognitive skills, and attitudes can result from behavioral change. This is consistent with the constructivist model of scaffolding that holds that changing how children act can lead to improvements in how they think, reason, and solve problems.

The action-leading-to-insight approach to learning and development is well known in the constructivist model of education influenced by the works of writers like Jean Piaget, Lev Vygotsky, John Dewey, and Jerome Bruner. These writers, however, emphasized the importance of the interactions between the individual's own creative exploration through play and the scaffolding experiences of adults and peers that provided a structural boost for their emerging cognitive abilities. Using rewards to encourage a child's participation in structured learning activities or in social play with peers may seem like ABA models, but the resemblance is very superficial. That is one of the many misleading ploys that has been used by behavior analysts to make their radical view of learning seem more acceptable and consistent with parents' own values. Rewards and punishments are not behaviorist terms because they apply to the subjective experiences of people and animals, and not to the effects they have on behavior. Behavior analysts are trained not to confuse the differences between how most people think about children's behavior and what behavior analysis teaches them about behavior.

As will be discussed at length in this book, ABA is a model of development and education which is not consistent with how most parents and teachers think about children's learning and development. The main difference is that radical behaviorism encourages its practitioners to think about behavior without considering the internal variables that most people associate with the experiences of being a child or any living organism. To some extent it might be like the way some of us who are not very technological think about cars, robots, computers, or any other complex operating systems: there is input and output, and we do not concern ourselves so much with what happens between the two. As it turns out, modern neuroscience has helped us to understand that the internal experiences of all organisms are of the greatest importance because it is these internal processes which enable individual organisms to creatively participate in their ecosystems, and to influence those ecosystems in ways which allow them to adapt to the stably unstable conditions of our planet.

Behavior analysis, in short, represents a model that is based on reducing the complexities of living organisms to a single principle: operant conditioning. The evidence to support that view is scant and is mostly based on experiments with small animals who had their capacity to choose how to participate in their ecosystems forcibly denied. Skinner argued that his operant conditioning experiments were a representative model of how life works. His laboratory procedures, however, artificially suppressed the normal process by which animals make decisions and choose their actions. Life exists because organisms have the capacity to determine what they will do based on choosing from a repertoire of abilities and skills—what the Russian physiologist Nikolai Bernstein referred to as *redundant degrees of freedom*—which leads to the capacity to cope and adapt.

The ABA model is based on the idea that the actions of children and all organisms are determined by the environmental reinforcement history of those behaviors. The use of the term *behavior* as a noun, as opposed to *behaving* as a verb, demonstrates the radical viewpoint taken by Skinner and his followers: free will is denied in their model simply by re-stating the act of behaving as the observable outcome of reinforcement, behavior. Acting becomes the deterministic consequence of events, not the creative origin of them. The word *behaving*, however, originated from the Germanic verb, *be haben*, which literally means “to have oneself.” Being oneself is how most of us think about how children should behave, they should have themselves. It is ironic that behaviorists such as Skinner chose a term that implies free will and self-direction to represent a theory which explicitly denies both free will and the capacity for self-expression. It is also ironic—or perhaps tragic—that the remaining followers of this ill-fated movement have chosen to apply this theory to children whose main challenge in life is getting others to accept their unique forms of free will and self-expression.

Behaviorism as a philosophical viewpoint in scientific psychology gained some popularity in the last century but then failed to maintain its relevance due to the advent of better scientific methods and models, but also because of the increased scientific understanding of complexity in nature and the indeterminacy of natural events. Complex systems create unpredictable outcomes, and humans are the ultimate example of that process. Unfortunately, behaviorism has persisted in the field of interventions for children with autism, largely by misrepresenting its basic values and belief system as well as the research evidence which supported it. By defining the state of being autistic as

a behavior problem, ABA has succeeded in creating a self-sustaining market for services which deny the relevance of the life experience of those children. This is clearly not consistent with how most parents, educators, therapists, and healthcare and educational administrators think children's services should operate, but it is what we are currently facing. This is not an outcome we can understand fully using a cause-effect model, but it can be understood as a system that needs to change.

Note About Child-First Terminology

It may be noticed by some readers that I have not used the *person-first* terminology: *child with autism*, as opposed to *autistic child*. This was done intentionally out of respect for the experience of autistic and neurodiversity communities who prefer to be identified as autistic individuals, rather than as individuals *with autism*. The idea that the word autism should come after the person assumes that society—and especially human services professionals—should not define people by their disabling conditions, which assumes that the person with autism perceives themselves as disabled because they are autistic. That is quite different from the way many autistic individuals experience themselves and their lives. Although there are many ways in which being autistic can be limiting in certain contexts, such as being ignored, devalued, excluded, or misunderstood. Those experiences can happen at home, in the community, at school, or in the workplace, and they are not the result of autistic people violating the law or being aggressive. A more complete discussion of what it means to be autistic in modern society is the topic of another book, but for now, it is enough to say that there are problems with the disease model of diversity, and few deserve to be revised more urgently than “autism.”

Out of respect for my friends, family, colleagues, and clients who experience life in an autistic way, I choose to understand them from a different perspective. Human understanding is not entirely based on science since science itself derives from human ways of thinking. What we know as humans is still more than what science understands, and science will serve humanity more consistently and in better ways once it learns to listen to the full range of unique and creative voices. Radical behaviorism and ABA are examples of unwarranted faith in technology and mistrust of basic human values and common sense. Those are views that we should try not to pass along to our children.

PART I

**WHAT DO BEHAVIOR
ANALYSTS THINK ABOUT
CHILDREN?**

CHAPTER 1

DONALD AND THE KOI FISH

Brains come in different types, and they're all normal.

—Simon Baron Cohen

Donald did not care about his father's koi fish, so he let them die. When Donald was twelve, his father went on a business trip and for the first time he left Donald in charge of the koi pond. Donald's father had told him that he was old enough now to take that responsibility, and he offered to pay him to take care of them while he was gone. Donald had watched his father take care of the koi pond in their front yard for many years, he had been there when his father brought home new fish to join the others, and he had watched the fish slowly grow over the years along with the lily pads, ferns, bamboo, and ginger which his father had planted to shelter the pond. He understood how to operate the pump, how to add fresh water, check the pond temperature, clear the filter, and to add fish meal every morning when the water was still cool. Donald did not need to be reminded that his father had cared for the koi fish for many years and that they were considered valuable. After his father left on his business trip, Donald forgot about the fish. When his father called home, he reminded Donald and encouraged him to feed the koi, check the water level and temperature, and make sure the pump and filter were working. Donald agreed but he did not do any of that, and by the time his father was back from his trip to Tokyo, the fish were dead.

Donald's father was angry when he discovered the pond was still, and covered in green slime. The fish food was untouched in its bin, and his beautiful koi were floating on their backs and sides, their colors faded and their

scales peeling off. Donald's mother was afraid that her husband would hit Donald or send him to a residential school—both of which he had threatened to do before. Despite his father's anger, Donald showed no emotion about the situation. He was annoyed when his father told him he wanted Donald to replace the fish, which cost a lot of money Donald did not have. Donald's father told him he could earn it by doing chores and babysitting his younger brother and sister. This seemed like a reasonable solution to Donald, and he agreed, but his father was still not satisfied. Donald's mother told him to let it go, and Donald would make it up to him; they were just fish. Donald's father could not sleep, and he continued to be distracted by this issue with Donald, ruminating about it, and feeling helpless, miserable, and angry. Unexpectedly, he started having severe anxiety attacks when he would become out of breath, his heart raced, he felt like his life was ending. His physician put him on anti-anxiety medication, and warned him about his weight, his heart, his diet, and his workload. Donald's father was not distressed about his work, or his weight; he was distressed because his son did not show any emotion about the fish; he did not seem to care that his father was disappointed and angry. Donald said he forgot about the fish. Donald's father could not understand how a boy could forget about his father's prized koi. How could his son care so little about something that was so important to his father? Just the thought of it made his heart race, and he began to abandon his hopes for his son's future.

Donald's father knew that Donald had mild autism. He struggled, though, to understand what that meant. He knew his son was intelligent; he was better at chess and math than his father, and Donald attended classes for gifted students at a private school. Donald had also had a lot of therapy, and the family had participated in sessions in which a behavior specialist had taught Donald's parents how to use rewards to change Donald's behavior. The home-based therapy started when Donald was still in preschool after Donald's father had slapped and spanked him for misbehavior. Donald's father was a large and powerful man—a former *sumotori*—and he was successful in business. He believed that much of his success resulted from his being conscientious about traditions and respecting the relationships he had developed. His son was also going to be a large man like him, and he hoped he would also be a successful one and one day join his father in his business. His eyes welled up with tears, and he flushed with a painful mixture of pride and sadness when he thought of Donald as a young man, in a business suit, seated next to him in business class, on their way to Japan together to

meet clients. After the koi fish incident, Donald's father began to realize this might never happen. The daydreams about his son that had been in his mind since before Donald was born, the proud moments when he told his colleagues about Donald's size and his successes at school, were fading and being replaced by worries and fears.

What was especially frustrating to Donald's father was that he had tried to use the reward techniques that the behavior specialist had taught him. This had been going on for years now: if the family or Donald's teachers wanted to get Donald to do something, they were told they needed to use positive reinforcement. Donald's father had learned not to get angry or to threaten Donald, which only caused him to become frightened and withdrawn. He knew that he needed to reward Donald for engaging in appropriate behavior, and the rewards had to be positive for Donald; things that he cared about. What Donald cared about, however, was mysterious to his parents or not healthy. Donald liked to eat junk food, watch anime, play videogames, and build with LEGO®. Donald's parents agreed that none of these activities were going to be helpful to Donald as a young man trying to become independent and to succeed in life, but the behavior specialist had told them to be patient: reward him with what he wants now, and he will eventually learn to care more about other activities, like doing well at school, getting along with his brother and sister, following household rules, and making friends. Donald and his family had been consulting with a board-certified behavior analyst and autism specialist for eight years—since Donald was five—and his parents did not feel that he had changed much at all. Donald's father said: "He's just selfish. I can pay him all the money I have, but that will not make him care about us. He will still be selfish."

Donald's mother was more optimistic, but she had a more affectionate relationship with him. She did not mind picking up the socks and wet towels from the floor of his room, cooking his favorite meals and having him ask for take-out fried chicken instead, or salvaging the peace when Donald pushed his brother and sister off the couch so he could watch his favorite anime. Donald still preferred to have his mother tuck him bed at night, he liked to hug her roughly (he was already bigger than she was), he sniffed her hair, and sometimes sniffed and licked her arm. She told him to stop that, and pulled away, but she felt bad about that. She knew Donald craved affection, and that he was starting to have sexual feelings (the subject had come up at school, and with his behavior specialist). She patted his big head, kissed him on the cheek, and let him maul and sniff her like a giant puppy.