

Toward a Behavior of Reciprocity

Morton Ann Gernsbacher

Department of Psychology
University of Wisconsin-Madison
MAGernsb@wisc.edu

Abstract: *It is frequently believed that autism is characterized by a lack of social or emotional reciprocity. In this article, I question that assumption by demonstrating how many professionals—researchers and clinicians—and likewise many parents, have neglected the true meaning of reciprocity. Reciprocity is “a relation of mutual dependence or action or influence,” or “a mode of exchange in which transactions take place between individuals who are symmetrically placed.” Assumptions by clinicians and researchers suggest that they have forgotten that reciprocity needs to be mutual and symmetrical—that reciprocity is a two-way street. Research is reviewed to illustrate that when professionals, peers, and parents are taught to act reciprocally, autistic children become more responsive. In one randomized clinical trial of “reciprocity training” to parents, their autistic children’s language developed rapidly and their social engagement increased markedly. Other demonstrations of how parents and professionals can increase their behavior of reciprocity are provided.*

Toward a Behavior of Reciprocity

Worldnet Dictionary (thefreedictionary.com) defines reciprocity as “a relation of mutual dependence or action or influence.” Hyperdictionary (hyperdictionary.com) defines it as “a mode of exchange in which transactions take place between individuals who are symmetrically placed, that is, they are exchanging as equals, neither being in a dominant position.” The connotation of reciprocal as actions given or done in return permeates many of our political and societal coinages; we use expressions such as *reciprocal aid*, *reciprocal trade*, and *reciprocal privileges* (e.g., reciprocal membership privileges at health clubs or reciprocal borrowing privileges at lending libraries).

Indeed, a primary association to the word *reciprocity* for the author is the agreement between the University of Minnesota and the University of Wisconsin that allows Wisconsin state residents to attend the University of Minnesota, paying only in-state tuition, rather than the more expensive out-of-state tuition, and similarly Minnesota state residents can attend the University of Wisconsin, paying only in-state tuition. This agreement between the Universities of Wisconsin and Minnesota epitomizes reciprocity: It is mutual, it is symmetrical, and the exchange occurs with neither party being in a dominant position.

Now, consider reciprocity with regard to autism. The thesis of this article is that many professionals—researchers and clinicians—and likewise many parents, have neglected the reciprocal nature of reciprocity. They have forgotten that reciprocity needs to be mutual and symmetrical—that reciprocity is a two-way street. Thus, the purpose of this article is to move us toward a behavior of reciprocity, genuine reciprocity.

Reciprocity and Autism

It has become a truism that autism is characterized by a lack of social or emotional reciprocity. So accepted is this assumption that, for example, in a recent research article examining a hypothesized autism susceptibility gene, the opening line simply claimed that “impaired reciprocal social interaction is a core feature of autism” (Wassink et al., 2004). No scientific citations were needed, no supporting data were required; the statement was assumed to be fact. Interestingly, however, none of the initial descriptions of autism mentioned reciprocity and its assumed lack. For example, the seminal diagnostic criteria for autism published in 1980 in the DSM III did not mention one word about reciprocity (APA, 1980). The more recent 1994 published DSM IV criteria for autism do mention reciprocity (APA, 1994); more specifically, “a lack of social or emotional reciprocity” is listed as one of the 16 possible characteristics of autism. However, no examples are provided of how a lack of social or emotional reciprocity would be manifested in behavior.

One would think that the very well known Social Reciprocity Scale (Constantino, 2002), which has been used in several studies of autism (Constantino & Todd, 2000; Constantino & Todd, 2003; Constantino, Gruber, Davis, Hayes, Passanante, & Przybeck, 2004; Towbin, Pradella, Gorrindo, Pine, & Leibenleft, 2005), would provide examples. And indeed, a few of the 65 items on the Social Reciprocity Scale do approximate a rough vernacular of what might constitute socially or emotionally reciprocal cognitions, for example, “is unaware of what others are feeling or thinking,” and perhaps “doesn’t recognize when others are taking advantage of him/her,” and “would rather be alone.”¹ However, even among the first several items on the Social Reciprocity Scale there are items that do not fit a true meaning of reciprocity (or its lack), for example, “expressions on his/her face don’t match what he/she is saying,” and “doesn’t seem self-confident when talking.” Other items seem completely unrelated to social reciprocity, for example, “is not well coordinated in physical activities,” or “doesn’t have good personal hygiene.”

Other items on the Social Reciprocity Scale illustrate the thesis of this article: Some professionals have forgotten the true meaning of reciprocity. Consider the item, “is regarded by other children as odd or weird.” This item appears to measure *other* children’s lack of social or emotional reciprocity. Regarding another child as odd or

1. I have relabeled these as “cognitions” because I find it baffling that they would be considered “behaviors,” given that they are thoughts (e.g., awareness of what other people are thinking or feeling) or perhaps predilections (a preference to be alone). However, such items demonstrate a type of arrogance if the observer—the parent or teacher, who completed the questionnaire about the target child—truly believes that he is aware of what the other person (the target child) is thinking.

weird implicates the regarnder—not the target child—as lacking in empathy or understanding. As a final example, consider the item on the Social Reciprocity Scale that asks whether the child “gets teased a lot.” How in the world the occurrence of a child being teased could be construed as a metric that he or she lacks social or emotional reciprocity is baffling. However, as the researchers who constructed this scale have demonstrated, this item is highly correlated with autism: Autistic children *do* get teased a lot, so much so that being teased and bullied has been elevated to a phenotypic criterion (Kunihira, Senju, Dairoku, Wakabayashi, & Hasegawa, 2006). Why do autistic children get teased so much? I submit this is because many non-autistic children, in addition to professionals and sometimes parents, forget that reciprocity is a two-way street.

Consider the following anecdote. On a lark one day a few years ago, I typed into the search bar of eBay the word “autism.” I was surprised to see over 500 items listed for auction that claimed to have some relation to autism. One item in particular caught my attention. The auction was titled, “Autism: See the World through My Eyes,” and the auction item was a button, such as one wears on a lapel. The button contained a picture of a young girl named Sarah, looking out a window, and the message: “I wish you could see the world through my eyes!” The auction description explained that Sarah’s father created this button because the message captured how Sarah responded to a homework assignment that asked what she would wish for if she had a magic wand. Sarah wished that others could see the world through her eyes.

On the exact day that I bumped into that eBay auction, an article appeared in the *New York Times* entitled, “Experiment Offers Look through Eyes of Autism” (O’Neil, 2002). The article stated that “using a high-tech eye-tracking device developed for the military, researchers at Yale ran experiments that came closer than anything yet to offering a look at the world as seen through the eyes of people with autism.” Could this be Sarah’s most fervent wish coming true? No, sadly not. As the *New York Times* article stated, “In the experiment, described in the current issue of *The American Journal of Psychiatry*, the researchers compared the eye movements of a highly intelligent autistic adult and a control subject of the same age, sex, and I.Q as they watched the relentless emotional conflicts of “Who’s Afraid of Virginia Woolf?”

From this eye-tracking experiment, the researchers concluded that “the two subjects were seeing the movie in starkly different ways. When Mr. Burton and Ms. Taylor, playing an alcoholic professor and his shrewish wife, confronted each other face to face, the gaze of the non-autistic adult swung intently between their eyes, while the autistic subject looked back and forth, as well—but focused on the actors’ mouths.” If the researchers could really see through the eyes of the autistic participant, they might have seen that it was more comfortable for him to focus on the mouths rather than the eyes (Gernsbacher & Frymiare, 2005), or that the mouths were even more informative—particularly because the individual with autism had a history of language impairment (Campbell & Dodd, 1980; Kuhl & Meltzoff, 1982; McGurk & MacDonald, 1976). Indeed, we know that other individuals with a history of language impairment who are not autistic focus on mouths for further information processing during discourse. It is a very adaptive strategy. But this very adaptive strategy was billed in the *New York Times* as “a profound social disability.”

In her book, *How to Be a Para-Pro: A Comprehensive Teaching Manual for Para-professionals*, non-autistic Twachtman-Cullen (2000) takes the perspective of an autistic child who requests the following of those around him or her: “Even though there are many things about me that are unique, in the ways that really matter, I am just like other children. I learn best from people I trust, and learn to trust when I sense that people like me. Please try to see the world through my eyes. Please know that even though it many not seem so, I really am trying to adapt to a world that my neurological challenges [sometimes] prevent me from understanding.”

Such neurological sensitivities were identified in a research article published in the *Journal of Applied Behavioral Analysis* (Tang, Kennedy, Koppekin, & Caruso, 2002). In this article, titled “Functional Analysis of Stereotypical Ear Covering in a Child with Autism,” four researchers conducted 43 half-hour observations across four days and submitted those extensive and intricate observations to numerous detailed behavioral analyses to understand the origin of “stereotypical ear covering that was reported by the child’s teachers to serve no identifiable function” (p. 95). The researchers concluded that “the results of a descriptive analysis revealed a correlation between ear covering and another child’s screaming. An analogue functional analysis showed that ear covering was emitted only when the screaming was present” (p. 95). It is difficult to imagine that a magic wand, high-tech expensive military eye-tracking equipment, or a detailed applied behavioral analysis was needed to appreciate this child’s very adaptive response to an assault against his auditory sensitivities. What was needed was greater social and emotional reciprocity—social and emotional reciprocity *by* the teachers and the researchers *toward* the autistic child.

Toward a Behavior of Reciprocity

How can parents, clinicians, teachers, and researchers move toward a greater behavior of reciprocity? In the words of the Count of Monte Cristo (Dumas, 1846/2000): “A secret voice seems to whisper to me that there must be something more than chance in this unexpected reciprocity of friendship.” The behavior of social and emotional reciprocity needs to be acquired with something more than chance; reciprocity needs to be developed more purposefully by non-autistics and applied more generously toward autistics. Twenty years of applied behavioral analysis (ABA) support this plea, although this body of ABA research has never been interpreted from a truly reciprocal perspective.

For example, in 1985 researchers taught three typically developing kindergartners some basic pro-social behaviors such as “offering to share with peers and to help peers . . . [i]nviting peers to play and requesting permission to play with peers” (Kohler & Fowler, 1985). Two of the three typically developing children maintained and increased these pro-social behaviors; a third child did not. What happened with the third child? Very simply, the “third child’s play invitations were not reciprocated by [her] peers; her invitations subsequently decreased in rate” (p. 187).

In 1986 researchers taught four typically developing preschoolers to either initiate interaction with three autistic preschoolers or to respond to the interaction that the

three autistic preschoolers initiated, in other words, to be reciprocal (Odom & Strain, 1986). Which intervention had the more lasting influence on the autistic preschoolers' social interaction? When the typically developing preschoolers were taught to respond to the interaction that the autistic preschoolers initiated, the autistic preschoolers responded more frequently. In other words, when the typically developing preschoolers behaved reciprocally, the autistic preschoolers responded more positively.

In 1988 researchers taught three autistic kindergartners to initiate pro-social physical interaction—giving high fives, patting a friend on the back—by incorporating the actions into a song, such as “if you're happy and you know, give your neighbor a high five” (McEvoy, Nordquist, Twardosz, Heckaman, Wehby, & Denny, 1988). The three autistic kindergartners then interacted with six typically developing kindergartners, only half of whom had also gone through the pro-social physical interaction training themselves. The typically developing kindergartners were considerably more likely to reciprocate the autistic kindergartners' interactions *if* they too had gone through the training.

In 1992 researchers taught three typically developing preschoolers, called peer tutors, to prompt for the verbal labels of preferred toys from three autistic children, whom the researchers called target children (McGee, Almeida, Sulzer-Azaroff, & Feldman, 1992). The peer tutors were told to “(a) wait for the target child to initiate a request for (i.e., reach for) a toy, (b) ask the target child for the label of the toy (e.g., “Say duck”), (c) give the toy to the target child when he labels it, and (d) praise the correct answer (“That was great! You said duck”). None of the target autistic children maintained their initiation with the typically developing peer tutors after the training sessions were completed. Why not? I submit it was because the interactions were not reciprocal. Recall that reciprocity is defined by “a relation of mutual dependence or action or influence” and “a mode of exchange in which transactions take place between individuals who are symmetrically placed, that is, they are exchanging as equals, neither being in a dominant position.” Peer tutors prompting autistic target children for verbal labels is neither mutual nor symmetrical.

Given these ABA data, the following scenario related by a mother in the section called “From the Front Line” of the near-classic ABA-for-autism manual, *Behavioral Intervention for Young Children with Autism: A Manual for Parents and Professionals* (Maurice, Green, & Luce, 1996) makes infinite sense. The mother began by describing how she established a behavioral therapy program for her daughter.

The first order of business was to establish attending behaviors. This was accomplished by the therapist holding a food reinforcer at her eye level while stating “Rebecca.” Rebecca wanted that reinforcer (a raisin or a Cheerio) so she would look momentarily at the therapist who would immediately give her the Cheerio and praise her verbally (Good looking, Rebecca!). Once Rebecca began to attend, she was taught to follow simple gross motor imitations and simple commands (stand up, clap hands, wave bye-bye). (p. 366)

By the time we hit the one year anniversary of our program 3 months ago, Rebecca had developed a great deal of skills and language. . . . A sampling of her current skills includes her ability to expressively identify all the letters of the alphabet presented in random sequence. She knows her shapes and colors, she can count up to 12 items, and she has an extensive vocabulary (several hundred words). Additionally, she has become proficient in categorizing items among nine different groupings. I was recently quizzing her in the car and

asked “What’s a zebra?” “It’s a animal.” “What’s a triangle?” “It’s a shape.” “What’s a couch?” “It’s furniture.” “Who’s William?” “It’s a person.” “What is a w?” “It’s a letter.” “What’s a helicopter?” “It’s something you ride in.” “What’s a bathing suit?” “It’s clothes.” “What’s cake?” “It’s food.” (p. 369)

As the mother wrote, “I present these examples to illustrate that many of the things that Rebecca knows are quite advanced for a child her age. I am convinced that Rebecca is a highly intelligent child. Her teachers tell me this constantly. In a way, that makes her deficits all the more maddening” (p. 369). What are these deficits that are so maddening to her mother? As the mother laments,

If, for example, I enter the kitchen after my morning walk and [my two daughters] are sitting at the kitchen table eating breakfast, Rebecca might glance up at me for a second and then look away. I have to walk up to her, get in her face, and force the interaction (“Hi Rebecca.” “Hi Mama.” “How are you?” “Okay.” “I love you.” “I love you, too.”). I have always found the contrast between my two children to be the most obvious and the most painful at mealtimes. Holly is such a talkative and observant child, and Rebecca will be sitting there like a sphinx, unable to participate in the give and take.

We find ourselves continually trying to draw her into our conversations. “Rebecca, what are you doing?” “I’m eating.” “What are you eating?” “Pasta.” “Good. What’s pasta?” “It’s a food.” “Good! Is it delicious?” “Yes.” “Say, ‘It’s delicious.’ ” “It’s delicious.” (p. 368)

Furthermore, as the mother describes, “One big problem that we have recently been tackling concerns Rebecca’s compliance during her [behavioral therapy] sessions. At times Rebecca becomes very silly ... We had decided to completely ignore Rebecca’s behavior during these incidents and to revert to a simple command presented over and over until Rebecca would get bored and comply. Unfortunately, this tactic did not succeed in extinguishing the noncompliance (it was going on for more than a month), so we are now resorting to putting Rebecca in time out, which we have determined is an aversive for her” (pp. 369–370). Such an approach might be helpful for teaching a child to see the world through your eyes, which is the promise of Bridges for Children with Autism (bridgesABAtapes.com), an internet company that sells ABA therapy training tapes, but recall that Sarah, the girl on the eBay button—and perhaps Rebecca, also—wished that others could see the world through *her* eyes. How can we do that?

Follow the Child’s Lead

According to one very prominent intervention style: “Follow your child’s lead and play at whatever captures her interest” (Greenspan & Weider, 1998). A wealth of empirical evidence supports the benefit of following this crucial mantra in both typical and atypical development. For example, Herman (2002) wrote the following in her essay titled, “What Parents Do to Encourage Communication and Language” regarding typical development:

The process of getting to know their new child involves parents noticing what interests them and how they react. Parents watch to see what their baby looks at and will often talk about

whatever it is that appears to interest their child. In this way, the parent follows the baby's lead. For example, if the baby gazes towards the light, the parent may comment "are you looking at the light?" In this way, the parent imposes meaning on the baby's actions, even though the baby's actions at this early stage *are without any specific purpose*. Eventually, this teaches the baby that actions lead to responses. In addition, the fact that communication is closely tied into whatever activity the baby is engaged in helps the baby begin to make sense of the stream of words they hear.

Herman wrote that toward the end of the first year of life,

An important behaviour to emerge at this time is the development of joint attention. This is a natural development from the parent following the baby's lead and talking about the child's focus of attention, as described above. Babies begin to be more aware of when they and their parents are focusing on the same object or activity. By the age of 9–12 months, they are able to follow their parent's line of vision and make use of pointing gestures. This helps them to begin to match the language they hear with the focus of attention. Indeed, where parents follow the infant's focus of attention when providing language, infants' vocabulary acquisition has been shown to proceed at a faster pace.

But what about the child who is delayed in developing the ability to follow his parent's line of vision? What about the child who is delayed in developing the ability to make use of pointing gestures, that is, to follow a parent's manual point or to make his own pointing gesture? Or even to make his own reaching gesture? Experience suggests that this is when parents—and professionals—need to enact *even more* reciprocity, need to share *even more* of the child's world, need to follow *even more* of the child's lead, and need to become something of a detective to discern the ways that the child is expressing joint attention and social and emotional reciprocity.

Consider the detective work effectively accomplished by Robert Hughes, a Chicago writer, who chronicled his life with his autistic son Walker in a critically acclaimed book, *Running with Walker*. In an essay titled "Autism and Empathy," published in *Chicago Parent* magazine, Hughes (2004) wrote the following about 17 year-old Walker:

He can't converse, play a game, sit still, tie his shoes. He does every mainline autistic behavior in the book: waves his hands and stares at reflected light, shouts certain words and phrases over and over, rewinds his audiotapes until they break. . . . But there is one quality he has in such abundance that it seems almost to define him: empathy. Bouncing on his therapy ball, his throne in our dining room, he knows his family's hidden feelings no matter how well we mask them.

Unfortunately, when he was much younger, his mother and I did not always catch on to this depth of feeling in him. Since he never nodded "yes" and "no," much less enunciated those words in any consistent way, even some of his essential character traits tended to stay under our radar. They were only revealed in dramatic blips that slowly enabled us to see him in a new way.

One such moment came when he was four years old. I had just come home from three days in the hospital undergoing tests for chest pain. The tests showed that I had experienced one of those Middle-aged Dad Hypochondria Alerts: My heart was fine; I was nuts. When I walked in our front door (as far as Walker knew, back from the dead) he took my hand and pulled me over to the couch. He got out a copy of *Pinocchio*, one of those Disney books a

child reads along with an audiotape, and turned the pages until he got to the place where he wanted me to read to him.

It was the passage about Pinocchio saving his father from the whale. I stopped in the middle of a sentence and stared at him, amazed. It was my odd, silent four-year-old's articulate way of telling his father of his love and concern. Since then, [my wife] and I have read his strange behavior in the light of the boy revealed that day: The one who feels far more deeply than he lets on, who signals his thoughts and feelings in unconventional, but still very telling ways.

It is those "unconventional, but still very telling ways" that parents, researchers, clinicians, and members of society must seek to identify. As autistic advocate, Jim Sinclair, has written in an essay titled "Don't Mourn for Us" (Sinclair, 1993):

The ways we relate are different. Push for the things your expectations tell you are normal, and you'll find frustration, disappointment, resentment, maybe even rage and hatred. Approach respectfully, without preconceptions, and with openness to learning new things, and you'll find a world you could never have imagined. Yes, that takes more work than relating to a non-autistic person. But it can be done—unless non-autistic people are far more limited than we [autistic people] are in their capacity to relate. We spend our entire lives doing it.

The Power of Imitation

In what ways can non-autistics show the behavior of reciprocity? We have known for centuries that imitation is the sincerest form of flattery, and we have known for decades that imitation improves social responsiveness in all children, including autistic children (Dawson & Adams, 1984). I am not referring to autistics imitating non-autistics, but rather non-autistics imitating autistics. When a stranger—such as an experimenter in a psychology laboratory—imitates an autistic child's object-oriented behavior, that is, the experimenter manipulates a duplicate object in the same way that the child does, the child makes dramatically longer and more frequent eye contact with the experimenter (Tiegerman & Primavera, 1984). When mothers imitate their autistic children's manipulation of toys, autistic children gaze longer and more frequently at their mothers, the children engage in more exploratory and creative behavior with the toys, and the children show considerably more positive affect (Dawson & Galpert, 1990). These effects are independent of the child's developmental level.

In another laboratory experiment (Field, Field, Sanders, & Nadel, 2001), autistic children displayed more socially reciprocal behaviors after repeated sessions in which the experimenter imitated their behavior, in contrast to a control group of autistic children with whom the experimenter played responsively but not imitatively. During a second session in this experiment, autistic children who were imitated by the experimenter increased in looking, vocalizing, smiling and playing with the experimenter; during a third session, autistic children who were imitated by the experimenter increased in being close to the experimenter, sitting next to the experimenter, and touching the experimenter.

Can these reciprocal behaviors be packaged into a treatment program—a program that trains parents and others to behave more reciprocally with their autistic children?

The answer is yes, and empirical evidence demonstrates the effectiveness of such programs. One study (Mahoney & Perales, 2003) used relationship focused intervention to enhance the social emotional functioning of autistic children by implementing responsive teaching with the children's parents. Some of the behaviors that the parents were taught included the following: join the child's perseverative play; read the child's behavior as an indicator of interest; follow the child's lead; respond to the child's behavioral state; match the child's interactive pace; and expect the child to react according to his or her temperament or behavioral style.

The participants were the mothers of 20 young children diagnosed as being on the autism spectrum. The mothers received weekly one-hour intervention sessions for 8 to 14 months. Before and after the treatment, both the parents and the children were assessed with a set of measures, but it is important to note that the treatment—the responsive teaching—was delivered only to the parents. Post-treatment, the mothers were observed to have increased in their responsiveness and their affect, which was the predicted outcome, and to have decreased in their achievement orientation and their directiveness, which was also the predicted outcome (although the decreases in achievement orientation and directiveness were not statistically significant). Post-treatment, the children's interactive behavior was observed to have increased an average of 50% in affect, persistence, interest, cooperation, initiation, and joint attention. All improvements were statistically significant, and the largest gain was in joint attention, which improved 84%.

Post-treatment, the children's socioemotional behavior was rated by their mothers as being significantly less detached, more socially reactive, and better regulated, according to the *Temperament and Atypical Behavior Scale* (Bagnato, Neisworth, Salvia, & Hunt, 1999). In addition, as observed by the researchers using the *Infant Toddler Socioemotional Assessment*, the children increased in their self-regulation and social competence (Briggs-Gowan, Carter, Irwin, Wachtel, & Cicchetti, 2004; Carter, Briggs-Gowan, Jones, & Little, 2003).

The gold standard in treatment outcome research is the randomized clinical trial (i.e., an experiment in which there is both a treatment group and a control group, with each participant being randomly assigned to one of the two groups). After decades of claims such as "thirty years of research demonstrating the efficacy of applied behavioral methods in reducing inappropriate behavior and in increasing communication, learning, and appropriate social behavior" in autism (U.S. Surgeon General's Office), there exists only one randomized clinical trial assessing the efficacy of ABA intervention for autism (Smith, Groen, & Wynn, 2000; see Gernsbacher, 2003, for a review). Unfortunately, the one randomized clinical trial of ABA intervention for autism produced no significant improvements in social interaction or communication.²

Consider in contrast a randomized clinical trial evaluating the effectiveness of a social communication intervention. Like the intervention delivered in Mahoney and Perales (2003); however, this randomized clinical trial (Aldred, Green, & Adams, 2004) delivered intervention to only the parents of autistic children. The treatment

2. Although the original article reports significant effects on language development, there was an error in data analysis, and an erratum was subsequently published (Smith, Groen, & Wynn, 2001).

involved “educating parents and training them in adapted communication tailored to their child’s individual competencies . . . promoting highly sensitive adult responses, where actions made by the child are interpreted by the adult as having meaning and being related to the child’s assumed intentions and desires, and replacing [the parents’] controlling and intrusive responses with responses aimed at facilitating the child’s active communication exchanges” (p. 1421–1422). Fourteen parents of autistic children were randomly assigned to the treatment group, and the same number was randomly assigned to the control group. The results of this randomized trial were quite impressive.

Analysis of a 30-minute parent-child free play session by coders who were naïve as to whether parents had been in the treatment or the control group identified several statistically significant changes. First, parents in the treatment group increased 7.3% in their synchronous communication, which comprises comments, statements, or acknowledgements that maintain the child’s interaction; in contrast, parents in the control group decreased 7.6% in their synchronous communication. Second, parents in the treatment group decreased 7.1% in their asynchronous communication, which comprised statements aimed at redirecting, controlling, or making demands on the child to respond; in contrast, parents in the control group increased 7.6% in their asynchronous communication. Third, parents in the treatment group increased 6.8% in their reciprocal communicative acts, which comprised verbal and non-verbal behaviors that share communicative intent, while parents in the control group decreased 2.5%.

What effect did these parental changes have on their children? As measured by the Autism Diagnostic Observation Schedule (Lord et al., 1989), children whose parents received treatment were shown to increase significantly in their reciprocal social interaction, their social engagement, their social rapport, their social responses, and their spontaneous initiation of social interaction. The children also demonstrated dramatic improvements in their language development, on the parentally reported MacArthur Communication Development Inventory (Fenson et al., 1993). As shown in Figure 1, children whose parents received treatment improved dramatically in their expressive

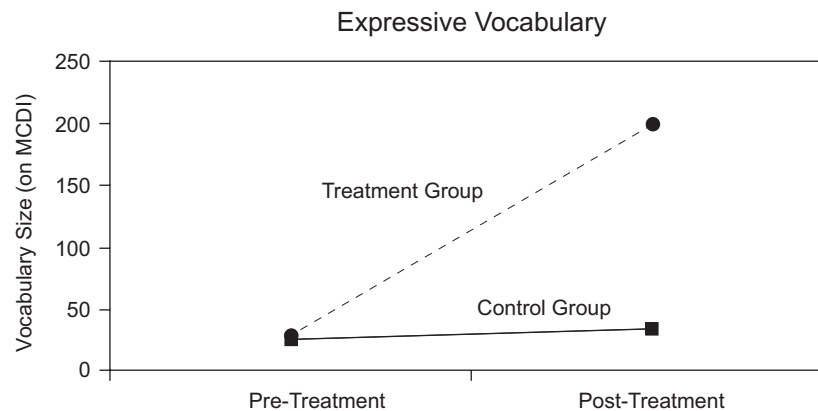


FIGURE 1. Data from Aldred et al. (2004)

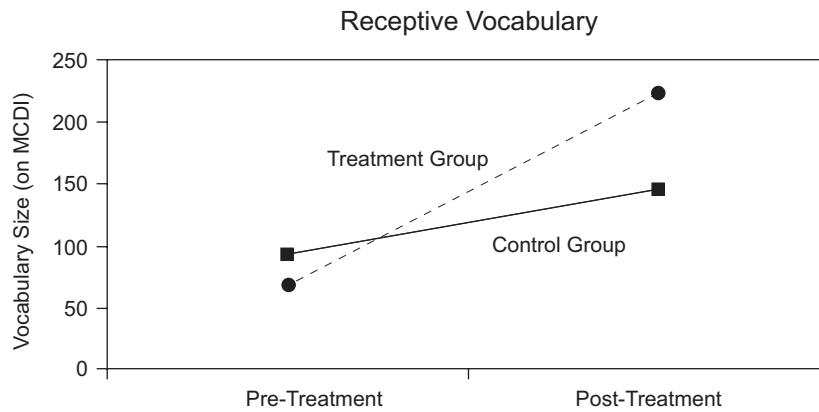


FIGURE 2. Data from Aldred et al. (2004)

vocabulary, whereas children whose parents were in the control group did not. As shown in Figure 2, children whose parents were in the treatment group as well as the control group improved in their receptive vocabulary.

Toward an Attitude of Reciprocity

Thus, parents can increase their reciprocity behavior. It is my hope that we can also increase society's reciprocal behavior and that greater reciprocity will permeate more and more of our community's attitude. Rather than reading a *Newsweek* "My Turn" column (Lee, 2003), in which a mother bemoans a dreadful ride with her autistic son on a hot, overcrowded, noisy trolley—an activity she had enjoyed when she was a child but clearly her child did not, I'd like to see more media coverage like the Associated Press story of Annie Lewis who camped out for 13 nights with her 12 year-old autistic son Gregg so that Gregg, who is fascinated by Krispy Kreme donuts, could be the first person to turn on the Krispy Kreme Hot light sign at the store's grand opening (Lucy, 2003). "It was a terrific experience, every minute," Annie Lewis reported. "I can now do a stand-up comedy act about this whole experience because it was tremendously fun. I would do it again in a split second."

Rather than reading on a state autism society list serve a mother's description of her child's fourth birthday party that went like this:

Anna's birthday started off fine, I had everything done and ready before the first guest arrived at noon. The whole family was here by 1 so we ate, then Anna fell asleep for her afternoon nap. Around 3ish I woke her up to open gifts. She got all worked up, crying and yelling no, carrying on. It was mostly because I woke her up, and she was feeling under the weather thanks to a wonderfully timed cold. Anyhow, my husband Mark sat in her bedroom with her opening gifts while the rest of my family sat there in the living room and dining room. She finally warmed up and enjoyed a couple of the gifts. She then worked her way to the dining room to play with a few new toys. I went and got the cake, put the candles in, we sang, and

Anna cried. That was an autistic moment; she NEVER likes it when people sing the Birthday Song like that, even if it's someone else's birthday. So I blew out the candles, we ate and soon after everyone went home. After the cake issue I wondered why I even bother.

I'd like to read about more birthday parties such as the one Paul Collins (2004) related in his recently published book, *Not Even Wrong: Adventures in Autism*:

There's one couple in Los Angeles with a son obsessed by all things relating to trash and recycling. He has memorized the garbage collection routes, the makes and types of disposal vehicles, and he talks of little else. So they arranged with the local garbage men to have a seventh birthday party for him out at the local landfill. The *Los Angeles Times* sent a reporter to cover it, blissfully unaware that perhaps this boy was—well, even more different than he seemed. “We don't know where this interest in trash came from,” they quoted the boy's mother. “He's been this way since he was 2.” But both parents say they are fine with him spending his life working with trash, if that's what makes him happy.

Rather than reading the following opinion from a mother on www.epinions.com (Wendywitch, 2004):

I hate that I have to drive her to therapy twice a week and go to IEP meetings. I wanted tea parties, I got speech therapy. My dreams have become to make her an independent adult, when they started out as having a daughter winning a Nobel Prize or a Pulitzer. I envy parents who can take their children to Disney World or to the movies.

I'd like to hear about more parents like Nancy Alar, who shared on the video, *Straight Talk about Autism with Parents and Kids: Childhood Issues* (1998), some features of her reciprocal relationship with her teenage son, Matthew Ward:

Last year he got interested in the gods of Egypt; who knows why. And we don't know where this came from, this absolute intense interest in hairless dogs. We don't know why *hairless dogs*. But, my husband and I are cat people. We now have a hairless dog.

In each of these alternate scenarios, the parents' behaviors embodied an attitude of reciprocity. As Greenspan and Weider (1998) have warned, “This can be hard. It's natural to want to take over . . . You need to remind yourself to fight this tendency. Your child will take the most pleasure in activities he chooses himself” (p. 140). Without embodying an attitude of reciprocity and working toward a behavior of reciprocity, it is unlikely that enjoyment will be defined by reciprocity, that is, “experienced or felt by both sides” (American Heritage Dictionary of the English Language, 2000).

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