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Social Skills:
Strategies and Challenges

Mary Jane Weiss

Social skills are agreed upon as centrally important in instructing individuals on the autism spectrum. They are, however, among the most elusive targets to impact. One challenge to teaching such skills is that learners with autism spectrum disorders (ASD) may have minimal intrinsic interest in learning these skills. Many learners with ASD lack social interest, have constricted social interests, have difficulties following social rules, and/or fail to comprehend social nuances. Additionally, they often exhibit little social initiation, as well as reduced social responsiveness. In summary, it is not difficult to understand the instructional challenges when we examine the diagnostic features and the motivational issues. One of the reasons clinicians struggle in this context is that social skills are *particularly* and *uniquely* challenging to individuals with autism.

Furthermore, it is often difficult to conceptualize how to instruct individuals with autism in such skills. Most social skills are multi-element skills that require the individual to engage in several different and distinct tasks. Consider turn taking. We could list many different discrete skills required for successful turn taking. These include: listening to directions, inhibiting actions, following rules, understanding cues for action and non-action, delay of gratification, etc.

Perhaps most importantly, most of the skills in the social realm involve an element of judgment (i.e., is it appropriate to engage in this behavior with this person at this time?). These varying situational elements and instructional complexities make it difficult to teach such skills. How does one define social judgment so it can be measured and is it even possible to do so? Furthermore, how can we program for generalization of

these skills? Is it even possible to prepare learners for the myriad possibilities that exist in real life?

This chapter will review these challenges to definition and to instruction, some of the ways in which such skills are commonly taught to individuals on the autism spectrum, and some broad issues that relate to the utility of these skills.

We have already reviewed some of the issues in definition. The core issues revolve around defining social skills in a functional context. What is a social skill? Is it simply a skill that is expected in society? Is it a skill that increases navigation independently? Is it a skill that prevents negative consequences? In other words, are social skills really rules about what *not* to do?

The chapters in this book present several frameworks for defining and teaching social skills. While there are differences in authors' views, each chapter presents a pragmatic approach to enhancing social functioning.

Instructional Challenges

There are several ways that social skills are approached in instructional contexts. Often, a skill will be discussed as a curricular area, as in play skills. Such an area may be broken down into stages and sub-stages of instructions, with corollary and corresponding programs. At times, a core or pivotal skill may be focused on as a distinct skill or progression of skills. For example, Theory of Mind or perspective taking is often discussed in this way. These elegant interventions provide an operationally defined set of procedures and a clear instructional progression.

In practice, however, social skills are often targeted in a multipronged approach. Many commonly used approaches are packaged interventions with several components that are used in combination with other procedures. Weiss and Harris (2001) provide a thorough description of several strategies for teaching social skills to young children on the autism spectrum.

Unfortunately, many commonly used strategies have limited empirical support to date. Additionally, some approaches have been empirically supported with different populations, but not with individuals on the autism spectrum. (For example, systematic problem-solving curricula have been successful in teaching problem-solving skills to children with ADHD.) The utility of these interventions is unclear, but many clinicians use procedures from other populations to address higher-level social skills. Several commercially available social skills chapters and curricula have well-formulated and clear lessons for a variety of social skill instructional targets (e.g., Baker, 2002; 2003; McGinnis & Goldstein, 1990; Richardson, 1996; Taylor, 2001; Taylor & Jasper, 2001).

In clinical application, a number of commonly used strategies fit the descriptions above (i.e., they have limited empirical support or have been used primarily with other types of learners). Nevertheless, such procedures are often used to remediate social deficits and to teach social skills. Importantly, they are often used in combination with other, direct behavior change procedures, such as reinforcement and prompting. Examples of such commonly used procedures that will be reviewed here include Social Stories, role-plays, rule cards, scripts, and video modeling. This review is designed to provide examples of the challenges that exist both in our empirical literature and in our guidelines for clinical practice. The procedures described are commonly used as parts of multi-component or package approaches to behavior reduction and skill acquisition. As such, it can be difficult to isolate the effects of any one component. This is a major problem in the empirical verification of procedures used in social skills instruction.

Commonly Used Techniques
Social Stories

Social Stories™ are an intervention developed by Carol Gray (Gray, 1993; 1994) that provide information about social situations and about behavior that is expected in those situations. Gray has suggested a formula or ratio of one directive statement to every three to five informational statements. This ratio is designed to ensure that the story convey information about complex or hard-to-comprehend social circumstances.

Social Stories can be written in various ways. Many clinicians combine text with pictures, and some clinicians make the stories extremely individualized (including using the names of people the individual knows and using the first person). The stories are used to convey information and expectations for multi-element tasks (such as cleaning up or lining up for recess). They are often used as part of a group of interventions to reduce challenging behaviors, and offer functional alternatives to the target behavior, such as asking for help instead of throwing materials.

There is some encouraging empirical support for the effectiveness of Social Stories in increasing social communication skills (e.g., Thiemann & Goldstein, 2001). However, the data are quite variable and knowledge is limited (Reynhout & Carter, 2006). Some of the problems that exist in the current body of literature include: highly variable effect sizes, highly variable methodology, and a lack of reports of cognitive level of individuals in the studies.

Even in a clinical context, there are more questions than answers. Many clinical aspects of the use of Social Stories remain unanswered from a research perspective. It does not appear that there is an effect for descriptive sentences (Reynout and Carter, 2006). Little is known about most other elements of story construction or clinical implementation. It is not known how frequently reviews of the story need to be done, whether comprehension activities make it easier for learners to master the content, or the best schedule for presentation of the story. The data are not robust with regard to the ability of Social Stories to facilitate behavioral change. Furthermore, data on the maintenance and generalization of such changes are largely unavailable. Given that maintenance and generalization are critical issues for individuals with ASD, this is a serious limitation.

However, consumers like Social Stories, are enthusiastic about including them in curricular planning, and are fairly compliant about implementing them. There are also many anecdotal reports of success with their use. The question for the clinician is whether, how, and when to use them. It may be possible and advantageous to use them as part of a package/group of interventions, as long as more direct change procedures are also used. However, the responsible behavior analyst would want to know whether, how, and how much Social Stories are contributing to behavior change in the individuals with whom they are working.

Role Plays

Role plays provide an opportunity for the rehearsal of desired behaviors (e. g., Snell & Janney, 2000; Weiss & Harris, 2001). We know that students with ASD often need multiple opportunities to learn and to practice desired skills. Hence, role plays may naturally provide such additional opportunities and supplement a low number of naturally occurring events in the natural environment.

Role plays can be used to target elements and nuances of interaction that are central to social success. Examples include orientating to the speaker, maintaining eye contact, and answering questions appropriately. Role plays can be done in different ways, with characters, puppets, people, and the target student. When the student participates, he or she can take on different roles, demonstrating the initial skill or the response. Role plays are always used together with feedback on performance. While there is not a body of research on role-play procedures, there is some support for the broad use of behavioral rehearsal strategies. This is one of the strategies that has been demonstrated to be effective with populations other than individuals with autism, and may be relevant.

Rule Cards

Rule cards assist students in following the social rules that are associated with a particular activity (e.g., Weiss & Harris, 2001). A rule card states the specific behavioral expectations for an activity. Rule cards are sometimes reviewed prior to an activity and can also be used in combination with other procedures (such as behavioral rehearsal). Rule cards are very helpful for targeting skills such as taking turns, sharing materials, and asking peers for items. They can also be used for delineating behavioral expectations for a particular environment or activity, such as the library or school assemblies. While there is not a body of literature on the use of rule cards *per se,* they are a common clinical intervention and are related to a variety of visual prompting strategies and behavioral rehearsal techniques that have been shown to be effective (e.g., Cooper, Heron, & Heward, 2007; Snell & Brown, 2000).

Scripts

Many students with autism have a difficult time engaging in conversations, even if they have well-developed language comprehension. They may also have difficulty in creative play. In both conversations and creative play, it is difficult to predict what other individuals will do, so the demands for flexibility are high. As a result of their deficits, individuals with autism may engage in much less interaction than they might appear to be capable of. One way to address this issue is to provide scripts for conversations or creative play. Scripts can be provided in the form of sentences, words, or pictures, and they can be used in a variety of circumstances (e.g., Snell & Janney, 2000). Scripts can also be specifically developed for a particular context, game, or activity. Scripts can help the learner to engage in the target behavior for longer durations. Also, they can assist the learner in staying on topic and engaged while involved in interaction. A number of studies document the effectiveness of scripts, including in facilitating social initiation and social interaction (e.g., Krantz & McClannahan, 1993, 1998).

Rote behavior or rigidity can be a concern whenever scripts are used. It is therefore important to program in variability in the script and to reinforce flexibility in the response. It is not functional if the learner can speak about a topic in only one way or play with a toy in only one unchanging sequence. We need to prepare individuals with ASD for the wide variety of circumstances they are likely to encounter in their interactions, and we need to build their capacity and tolerance for change.

Video Modeling

Video modeling, which is described in the chapter by Rebecca MacDonald, is an area where more research literature does exist. Video modeling has been shown to be a very effective means of teaching students with ASD to imitate peers (Haring, Kennedy, Adams, & Pitts-Conway, 1987), learn sign language (Watkins, Sprafkin, & Krolikowski, 1993), develop play skills (Charlop-Christy, Le, & Freeman, 2000), and develop conversation skills (Charlop & Milstein, 1989; Sherer et al., 2001). Increasingly, video modeling is being used successfully to build a variety of skills, including functional academic skills, community-relevant skills, conversational exchanges, and play skills (e.g., Snell & Brown, 2000; Taylor, 2001; Weiss & Harris, 2001). The literature about its effectiveness is compelling and robust.

The use of video is also clinically appealing, as many students with ASD are strong visual learners and enjoy watching videos. There has been speculation that individuals with autism may attend better to a model presented in a video clip than they would to a live model demonstrating a skill. Clinically, video modeling is often presented as an adult demonstrating the skill first. When using an adult model, it may be easier to ensure that the important aspects of the target behavior are made salient. In addition, older peers or mature peers can be used as models. These individuals have inherent advantages, because of their similarities to the target students.

Video modeling has been used to teach a variety of play skills. While there is some variability in how video modeling is implemented to build play skills, it usually involves having learners observe a clip and then enact the demonstrated skills themselves. There may be a phase of concurrent imitation of the behavior (doing the actions along with the model on tape), followed by a phase of delayed imitation of the observed behavior (watching the clip and then playing). The rote nature of the response is a concern, so it is important to program in variability. The learner can also be eventually rewarded for expanding upon or varying the modeled skills.

In addition, the video medium can be used to provide feedback to learners on their performance. Both reinforcement and corrective feedback can be provided, and the experience can be used to develop better skills. Specifically, strategies for targeted areas of weakness can be modeled and rehearsed (e.g., Taylor, 2001). This may be an especially useful strategy for situations in which an individual has demonstrated difficulty understanding social rules, such as respecting personal space or staying on topic in a conversation.

Guidelines for the use of video with students with ASD have been developed (e.g., Krantz, MacDuff, Wadstrom, & McClannahan, 1991). Specifically, these authors suggest: assessing learners for necessary prerequisite

skills; removing extraneous stimuli from the environment; factoring in the history of the learner with the people who are presenting the video or modeling on the video; and considering cognitive level as a possible prerequisite (as learners with more developed cognitive skills may have better outcomes). You may also wish to refer to *Seeing Is Believing: Video Self-Modeling for People with Autism and Other Developmental Disabilities* by Tom Buggey (Woodbine House, 2009).

Problem Solving

The capacity to solve problems is an important part of success in school, at work, in interpersonal relationships, and in life. Problem solving is also critically important to the social world of friendships. Many students with social skills difficulties due to other types of problems, such as ADHD, have benefited substantially from problem-solving approaches.

Problem-solving training generally includes helping learners to both identify problems and select appropriate solutions. Children with ASD often have difficulties with identifying the social problem. This may be due to the apparent ambiguity of presenting problems. They also struggle with evaluating options for a course of action. They may be impulsive and quickly act on the first option that comes to mind, or they may simply fail to see the range of options. Training in problem-solving (e.g., Shure, 2001a; 2001b; 2004) can help students with ASD to identify problems, generate alternative solutions, evaluate the effectiveness of different possible paths of action, and choose the best option (Bieber, 1994; Dunn, 2006). This approach is flexible, and can be done as a class-wide intervention or as an individual approach.

Evaluating Social Significance

As behavior analysts, we always discuss the importance of socially significant change. Nowhere in curricular programming is this more important than in the realm of social skills. Issues of social significance center on the meaningfulness of behavior change. It is not meaningful if the skill is demonstrated in an isolated context. It is also not meaningful if the skill is not demonstrated in a functional way. For example, if the duration or latency for a behavior is excessive, the learner will not receive reinforcement in a maximally effective way. Thus, a child with autism may miss out on the chance to interact with a friend if it takes him too long to respond to a greeting.

Generalization is an issue of central importance in social skills. There is little use in teaching conversation in a scripted way unless the learner even-

tually tolerates unscripted interactions. Similarly, with play skills, students need to respond to different fire stations, garages, farms, and dollhouses. Our attention to generality needs to permeate our social skills programming. We need to remember the lessons of Stokes and Baer (1977), who emphasized the use of multiple exemplars, the importance of training loosely, and the strategy of varying elements of the instructional context to facilitate the transfer of skills.

Similarly, we need to attend to time-based dimensions of behavior when teaching social skills. Duration and latency are salient features of social interactions. Deficits in the stamina and responsiveness of learners have severe social consequences. Consequently, building speed of response is critically important.

Summary of Clinical Approaches

It is difficult to specify what is meant by social skills. Many behavior analysts single out particular skills (e.g., joint attention or play) that can be targeted as a curricular progression. In these elegant progressions, one can see the basic tenets of ABA in action, including operational definitions, clear criteria for mastery, and a sequenced instructional approach.

In clinical practice, however, a variety of techniques are commonly used for teaching social skills to individuals with autism spectrum disorders. Many of the techniques that are commonly used are not empirically validated or have been used primarily with other populations. They may, however, be useful additional components to a package of behavioral interventions. They are often implemented in this way—as one element of a multi-element approach. Such packaged interventions may improve the learner's acquisition of these multi-element skills. At the least, they may provide more practice/learning opportunities and increase the extent to which individuals with ASD are prepared for the range of possible experiences.

In consideration of the use of non-verified treatments or packaged interventions, it is important that direct behavior-change procedures always be used to affect behavior. In addition, data on the effectiveness of all strategies used with individual learners should always be collected to make it easier to make data-based decisions about the continuation or discontinuation of any treatments or any components of treatments.

In all social skills programming, our emphasis must be on the mastery of behaviors that have true social significance. Toward that end, we must program for generality in the stimuli we select, the settings we instruct in, the teaching procedures we use, and the responses that we reinforce. We

must also attend to the issue of response availability. Students with ASD must respond in a timely way to peer initiation, as failing to do so will result in fewer social bids.

In the curricular realm of social skills, functionality must be our barometer of effectiveness. Do the skills we teach make a real-world difference for this individual? Does he or she now have greater access to reinforcement? Does he have fewer negative interactions? Can he navigate social contexts more easily? Is the learner more independent? Has he found a community of individuals who share his interests? The focus is on ultimate outcomes. Our teaching strategies must reflect and be shaped by this goal.

References

Baker, J. E. (2003). *Social skills training.* Shawnee Mission, KS: Autism Asperger Publishing Co.

Baker, J. E. (2003). *Social skills picture book: Teaching play, emotion, and communication to children with autism.* Arlington, TX: Future Horizons.

Bieber, J. (1994). *Learning disabilities and social skills with Richard Lavoie: Last one picked . . . first one picked on.* Washington, DC: Public Broadcasting Service.

Charlop, M. H., & Milstein, J. P. (1989). Teaching autistic children conversational speech using video modeling. *Journal of Applied Behavior Analysis, 22,* 275-285.

Charlop-Christy, M. H., Le, L., & Freeman, K. A. (2000). A comparison of video modeling with in vivo modeling for teaching children with autism. *Journal of Autism and Developmental Disorders, 30,* 537-552.

Cooper, J. O., Heron, T. E., & Heward, W. L. (2007). *Applied behavior analysis* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Dunn, M. (2006). *S. O. S.: Social Skills in Our Schools: A social skills program for children with pervasive developmental disorders, including high functioning autism and Asperger syndrome and their typical peers.* Shawnee Mission, KS: Autism Asperger Publishing Company.

Gray, C. (1993). *The original Social Story book*. Arlington, TX: Future Horizons.

Gray, C. (1994). *The new Social Story book*. Arlington, TX: Future Horizons.

Haring, T., Kennedy, C., Adams, M., & Pitts-Conway, V. (1987). Teaching generalization of purchasing skills across community settings to autistic youth using videotape modeling. *Journal of Applied Behavior Analysis, 20,* 89-96.

Krantz, P. J ., MacDuff, G. S., Wadstrom, O., & McClannahan, L. E. (1991). Using video with developmentally disabled learners. In P. W. Dowrick (Ed.), *Practical guide to video in the behavioral sciences* (pp. 256-266). New York, NY: John Wiley & Sons.

Krantz, P. J., & McClannahan, L. E. (1993). Teaching children with autism to initiate to peers: Effects of a script-fading procedure. *Journal of Applied Behavior Analysis, 26,* 121-132.

Krantz , P. J., & McClannahan, L. E. (1998). Social interaction skills for children with autism: A script-fading procedure for beginning readers. *Journal of Applied Behavior Analysis, 31*, 191-202.

McGinnis, E., & Goldstein, A. P. (1990). *Skillstreaming.* Champaign, IL: Research Press.

Reynhout, G., & Carter, M. (2006). Social stories for children with disabilities. *Journal of Autism and Developmental Disorders, 36*, 445-469.

Richardson, R. C. (1996). *Connecting with others: Lessons for teaching social and emotional competence*. Champaign, IL: Research Press.

Sherer, M., Pierce, K. L., Parades, S., Kisacky, K. L., Ingersoll, B., & Schreibman, L. (2001). Enhancing conversation skills in children with autism via video technology: Which is better, "self" or "other" as a model. *Behavior Modification, 25*, 140-158.

Shure, M. B. (2001a). *I can problem solve (kindergarten and primary grades).* Champaign, IL: Research Press.

Shure, M. B. (2001b). *I can problem solve (intermediate elementary grades).* Champaign, IL: Research Press.

Shure, M. B. (2004). *I can problem solve (preschool).* Champaign, IL: Research Press.

Snell, M. E., & Brown, F. (2000). *Instruction of students with severe handicaps*. Upper Saddle River, NJ: Prentice Hall.

Snell, M. E., & Janney, R. (2000). *Social relationships and peer support*. Baltimore, MD: Paul H. Brookes.

Taylor, B. A. (2001). Teaching peer social skills to children with autism. In C. Maurice, G. Green, & R. Foxx (Eds.), *Making a difference: Behavioral intervention for autism* (pp. 83-96). Austin, TX: Pro-Ed.

Taylor, B. A., & Jasper, S. (2001). Teaching programs to increase peer interaction. In C. Maurice, G. Green, & R. Foxx (Eds.), *Making a Difference: Behavioral Intervention for Autism* (pp. 97-162). Austin, TX: Pro-Ed.

Thiemann, K. S., & Goldstein, H. (2001). Social stories, written text cues, and video feedback: Effects on social communication of children with autism. *Journal of Applied Behavior Analysis, 34*, 425-446.

Watkins, L. T., Sprafkin, J. N., & Krolikowski, D. M. (1993). Using videotaped lessons to facilitate the development of manual sign skills in students with mental retardation. *Augmentative and Alternative Communication, 9*, 177-183.

Weiss, M. J., & Harris, S. L. (2001). *Reaching out, joining in: Teaching social skills to young children with autism*. Bethesda, MD: Woodbine House.