

The Winston Churchill Memorial Trust of Australia

Report by

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2008 Churchill Fellow

A study of programs in the USA and UK that train mentors to work alongside young people with Autism/Asperger's Syndrome supporting their education in mainstream settings and supporting their ongoing participation in the workforce.

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Signed: Peter Batten

Dated:

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INTRODUCTION

*A fool thinks himself to be wise,
but a wise man knows himself to be a fool. William Shakespeare*

The purpose of my Churchill Fellowship was to study programs in the USA and UK that provide training and guidance for those special people who give their time and their talents to assist young people with Autism/Asperger's Syndrome live as independent and fulfilling lives as possible.

Due to the broad nature of disability associated with Autism Spectrum Disorders, I need to clarify my area of interest and focus. My study was primarily concerned with young people at the higher-functioning end of the Autism Spectrum. That means people with a diagnosis that qualifies as an Autism Spectrum Disorder, but with average to above average intelligence, with good verbal skills i.e. verbal IQs over 70. I was not concerned so much with the label given by diagnosticians, they vary so widely, but labels for this population will include Pervasive Developmental Disorder Not Otherwise Specified, Autism, High Functioning Autism and Asperger's Syndrome. All these labels imply the existence of social cognitive learning challenges.

In the past, treatment programs for people with social cognitive deficits, such as Autism, have been behaviourally based. However, a purely behavioural approach to treating these children who have higher cognitive and language abilities, does not adequately address the complex needs of the child (Perry & Condillac, 2003; Simpson, 2005; Prizant, Wetherby & Rydell, 2000).

That said, addressing the complexity of each student's needs based on their personal social cognitive and social emotional challenges, is a precursor to developing effective and appropriate treatments for children and young people with Autism/Asperger's Syndrome. One size does not fit all and one method is not appropriate for all. This was an important lesson from my Fellowship experience. We need to take the time to appreciate the individual nature of each student and provide treatment based on the student's unique combination of social, behavioural and emotional needs. I don't wish to mislead people. Individuals with significant levels of cognitive impairment accompanying their Autism, will benefit more from a behavioural approach to treatment.

Because the focus of my fellowship was a cognitive approach to treating kids at the high-functioning end of the spectrum, most of this paper is devoted to Michelle Garcia Winner's "social thinking" approach to treatment. However, an important part of my own learning journey across the USA and UK involved exploring different perspectives to treatment. I explored the perspectives of parents and children, professionals and paraprofessionals, schools and universities, those working with very young children and those working with adults. I even explored the perspective of those who help this population into the workforce. One of the most important perspectives was the perspective of people who have Autism/Asperger's Syndrome themselves. These are the people who give Autism/Asperger's Syndrome a voice.

In California I met with the Asperger's Society, adults with Asperger's Syndrome who want to develop an "aspiration-and-achievement" culture for children and adults with this label. I was personally challenged by listening to the perspectives of this group of articulate, and thoughtful adults. Listening to the views and opinions of people on the spectrum about the needs and desires of people on the spectrum, will challenge your perspective. Even if we could "cure" people of their autism, the larger ethical question is should we? A very vocal and growing group of adults on the spectrum suggest that not all people with an Autism Spectrum Disorder want that option. They offer an important perspective.

After meeting with this impressive and articulate group, I understand the phrase "Not Without Us". It is important to value the perspective of those with the disability. At the King Ecbert School in the UK, they regularly invite a person with Autism/Asperger's Syndrome to review their autism program because they value that perspective. We need to see people with the disability represented on the governing and advisory boards of organisations providing support services to this population.

For most people, social cognition improves with age. Life experience causes us to become better social thinkers. However, for the person with a social cognitive impairment, the social thinking gap when compared with their neurotypical peers, widens with age. The need for people with Autism/Asperger's syndrome to dip in and out of support remains for life. There is progress, there is no cure. The need to establish programs that provide such services is increasing not diminishing. The Aspire mentoring program I observed in the UK, encouraged me to think through a model for the Australian context, that would enable "front-line" service providers to teach social thinking skills in the context of a relationship. This would involve establish a training program for "front-line" service providers i.e. parents/carers, teacher's aids and other mentors. The content of such a program is the subject of my paper.

I left Australia aware of how much I didn't know and I have returned having learnt that it is not what you know or what you don't know, it is what you do with the resources you have at hand. During my Fellowship I met a group of people who were further ahead of me on their learning journey, but equally passionate about working with this population and brutally honest about their own lack of wisdom when they started. One expert I visited described their experience developing a program for students with Asperger's Syndrome like "flying the aeroplane while building it".

Quality programs are developed by people who are not afraid to admit they don't have all the answers, but are brave enough to embark on the learning journey anyway. These people consciously or unconsciously apply Donald Schon's notions of Reflection-in-Action and Reflection-on-Action (Schon, 1983). These concepts are explained towards the end of this paper, but as the name implies they are skills of reflection - about oneself and one's practice. This is the art of metacognition, or thinking about your thinking. This is the skill flexible thinkers are attempting to share, in the context of their relationship with a child or young person with Autism/Asperger's syndrome.

What follows is my attempt to improve the way we in Australia work with young people with Autism/Asperger's Syndrome. I hope you find it a useful contribution.

ACKNOWLEDGEMENTS

Let us be grateful to people who make us happy; they are the charming gardeners who make our souls blossom. Marcel Proust

I would like to thank the Winston Churchill Memorial Trust for providing me with the opportunity to undertake the best professional development experience one could possibly imagine.

I would also like to thank all those excellent practitioners who invited me into their world and were so willing to share ideas, experiences, resources and most of all, their own personal learning journeys. If I was a pirate, and in many ways everyone doing good work in this field has a bit of the pirate about them, I would have to say that I met some “swashbucklers” on my travels. There are individuals out there who are pushing the boundaries of conventional thinking and moving forward with innovative programs that are changing lives.

I particularly acknowledge Michelle Garcia Winner, who provided me with a fabulous opportunity to learn skills that I could not have obtained in Australia. I literally “stalked” her across the US, attending her workshops on the West coast and the East coast as well as training at her clinic. Michelle has continued to provide advice and insight even after I returned to Australia, her generosity to an Aussie full of insatiable questions, has helped push my thinking in new and exciting directions.

I would like to pay tribute to the students I have worked with over the years, along with their families. These people have taught me more about Autism/Asperger’s Syndrome than any textbook.

Finally, I would like to thank my own family who have travelled with me on my five-year journey into Autism and provided me with a much needed reference point along the way. Having my family accompany me on what turned out to be an “ambitious” study tour across the USA and UK, provided me with the support I needed to complete the trip. Elijah, who turned 2 in California, taught me how to see the world through the delighted eyes of a child. Atticus, who turned 5 in Chicago, taught me how to engage perfect strangers in conversation and obtain the most fascinating personal information. My wife Nicole, who put up with morning sickness the whole way, taught me how to give of oneself for the sake of others, despite the personal cost. Probably the most important lesson I learnt!

*To speak gratitude is courteous and pleasant, to enact gratitude is generous and noble, but to live gratitude is to touch Heaven.
(Johannes A. Gaertner).*

EXECUTIVE SUMMARY

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Travel was undertaken during April and May 2009. The aim of my Fellowship was to study programs in the USA and UK that work alongside young people with Autism/Asperger's Syndrome, supporting their education in mainstream settings and enabling their ongoing participation in the workforce and other forms of community engagement. I wanted to interact with a range of different programs overseas so I could design an effective support mechanism for this population that was appropriate for the Australian context. My aspiration was to develop a model of support that not only valued the unique qualities and strengths of people with Autism/Asperger's Syndrome, but also provided a conceptual framework to address the neurologically based deficits associated with this disorder. These deficits hinder engagement with the community, have an ongoing cost to society and an impact on the quality of life of individuals and their families.

I have returned from my Fellowship with a greater appreciation that Asperger's Syndrome and related disorders are becoming an increasing issue around the world. It is worth emphasising that there are financial and emotional costs to communities, governments, families and individuals associated with the increasing diagnosis of people with this disability, currently 1:150. There is no doubt that this disability will create increasing pressure on a range of Australian support services in coming years. Service providers overseas are already bracing themselves for an increase in numbers.

My overseas experience taught me that two components are important in developing an effective program for this population:

1. Cognitive Behaviour Therapy should be used as a theoretical basis for developing social cognition in people with Autism/Asperger's Syndrome; and
2. A relational strategy such as mentoring is an effective way to facilitate the ability of this population to generalise social cognitive skills to different real life contexts.

Michelle Garcia Winner is at the cutting edge of a movement in the USA to reconsider how professionals develop educational programs to address the deficits associated with Autism/Asperger's Syndrome. Winner highlights the value of Cognitive Behaviour Therapy in supporting the needs of people on the Autism Spectrum who have more advanced linguistic and cognitive abilities, as it shifts the locus of control to the individuals with Autism. Michelle Garcia Winner offers some powerful strategies to ensure people with Autism/Asperger's Syndrome become social thinkers, effective communicators, self-directed learners and information processors. It is recommended that the cognitive behavioural framework that forms the basis of Michelle Garcia Winner's social thinking curriculum be used to provide the conceptual basis for programs working with people at the higher functioning end of the Autism Spectrum in Australia.

PROGRAM

Location	Institution/Organisation Visited
Vancouver Washington USA	Attended a one-day Workshop titled "Discovering Social Strategies for Individuals with an Autism Spectrum Disorder" conducted by Carol Gray.
Vancouver Washington USA	Attended a one-day Workshop titled "Thinking about Teaching and Teaching Thinking" conducted by Michelle Garcia Winner.
San Jose California USA	Attended a three-day Mentor Training Program for professionals working with people who have Asperger's Syndrome, High Functioning Autism and related disorders conducted by Michelle Garcia Winner at her Social Thinking Clinic.
San Jose California USA	Visited The Newton Program, an alternative school operating a program for students with Asperger's Syndrome and related disorders who cannot be appropriately accommodated in mainstream schools. The Newton Program is part of the Pine Hill School, which is operated by a not-for-profit organisation. L.E. Boydston, Executive Director; Greg Zieman, Principal; Ed Phipps, Newton Program Coordinator.
San Jose California USA	Met with the Asperger Society, founded by adults with Asperger's Syndrome who want to develop an aspiration-and-achievement culture for children and adults with Asperger's Syndrome. Issac Kight, President and Paul Bondonno, Vice President.
San Jose California USA	Visited Cupertino High School's mainstream inclusion program for students with Asperger's Syndrome and related disorders. Joe Weber, Program Administrator for Special Education; Elizabeth Rochin, Lead Resource Teacher.
San Jose California USA	Visited Homestead High School's withdrawal program for students with Asperger's Syndrome and related disorders. Joe Weber, Program Administrator for Special Education; Elizabeth Rochin, Lead Resource Teacher.
Chicago Illinois USA	Spent two days with the Communication Development Program run by the South West Cook County Association for Special Education at VJ Andrew High School, Tinley Park, Illinois. Gina DioGuardi, Program Supervisor; Jan Petru Speech Language Pathologist/Department Chair.
Huntington West Virginia USA	Spent two days with the West Virginia Autism Training Centre, based at Marshall University, Huntington, West Virginia. Dr Barbara Becker-Cottrill, Executive Director; Marc Ellison, Program Coordinator, The College Program for university students with Asperger's Syndrome.
Providence Rhode Island USA	Visited The Autism Project of Rhode Island, a unique collaboration of parents and professionals who aim to develop a comprehensive system of support that meets the needs of children and adults with autism, their families and support workers. Joanne Quinn Executive Director; Connie Rinehart, Program Administrator; Cheryl Cotter, Training Coordinator.
Providence Rhode Island USA	Spent two days with The Groden Network, a comprehensive provider of services for people of all ages with an Autism Spectrum Disorder. Dr June Groden, Executive Director; Dr cooper Woodward, Clinical Director; Dr Kelly Harrison Pistacchio, Director Asperger's Project; Dr Patricia Wisocki, Director Asperger's Job Club; Mike Smith, Director Vocational Services.
Boston Massachusetts USA	Attended a two-day Workshop presented by Michelle Garcia Winner covering the following topics: <ul style="list-style-type: none"> • Understanding Social Thinking Across the Home & School Day; • The I-LAUGH Model of Social Cognition; • The Nuts and Bolts of Starting Social Thinking Programs - Practical Strategies for Schools; • Practical Strategies for Assessment and Life.

PROGRAM Cont....

Location	Institution/Organisation Visited
Boston Massachusetts USA	Visited Advancing Milestones , a school for students with Asperger's Syndrome, PDD, nonverbal learning Disabilities, obsessive-Compulsive Disorder, Touretts's Syndrome, Anxiety Disorders etc. Alex Michaels, Executive Director.
Boston Massachusetts USA	Met with Adventures Outside the Box . AOB runs structured, goal oriented social thinking groups and recreational opportunities for children and teens with Asperger's Syndrome and related disorders. They support the generalization of social thinking and social skills in active real life environments. Lori Hodgins, principal trainer.
Boston Massachusetts USA	Met with Youth Care , a program supporting social skill development for children and adolescents with Asperger's syndrome and related challenges and part of the Massachusetts General Hospital Autism Clinic. Scott McLeod, Executive Director; Dot Lucci, Director of Consultation Services.
Boston Massachusetts USA	Met with the author of Meet Thotso, Your Thought Maker , a book about a brain that teaches young children positive thinking skills. Dr Rachel Robb Avery, Child Psychologist and author.
Hove UK	Visited the ASpire Mentoring Project , which aims to empower individuals with Asperger's Syndrome to identify their own needs and then provide the support to address those needs through a 1:1 mentoring program. Su Orosa, Aspire Mentoring Project Leader.
Manchester UK	Obtained a briefing on Celebrating Strengths , a consultancy promoting mental health in schools through the use of Positive Psychology principals and strategies. They have practical experience working with Asperger's Syndrome. Jennifer Fox Eades, consultant and trainer.
Sheffield UK	Visited the The Integrated Resource , at King Ecgbert School. The aim of the "Resource" is to advance and further the theraputic education of young people with an Autism Spectrum Disorder within a mainstream setting. Matthew Hesmondhalgh, Project Manager.
Sheffield UK	Obtained a briefing about The Supported Employment Project , which is part of the Charity set-up by the King Ecbert School to support young people with Autism moving into the employment market. Glynis Beck, Project Manager; Matthew Hesmondhalgh, Project Director.

MAJOR FINDINGS AND OBSERVATIONS

“Social Thinking”

**A Cognitive Developmental Approach to Treating Autism/Asperger’s Syndrome
Combining Thinking and Relationship in Real-Life Contexts.**

1. Beyond Behaviour – Promoting Greater Independence

“When you get their behavior under control, then what?” The words of Psychologist Dr Cooper Woodard, Director of Clinical Services at The Groden Centre, Providence Rhode Island, USA, keep coming back to me. Until recently, treatment programs for people with Autism/Asperger’s Syndrome have been behaviourally based. That is, the emphasis on treatment has been on helping children and young people with this disability learn the skills they need to behave like their peers with neurotypically wired brains. There is now a realisation that young people with Autism/Asperger’s Syndrome, who have average to above average intelligence and language skills, can still have severe social adaptive and comprehension problems, despite their intelligence and despite being taught “social skills”. When the behaviour is no longer a problem, a more debilitating aspect of the disability lingers, their poorly developed social cognition skills.

In the USA, there is a growing movement focused on addressing the social cognition problems associated with Autism/Asperger’s Syndrome by educating this population using a cognitive-behavioural approach. Rather than teaching social skills by rote, a cognitive-behavioural approach involves teaching children and young people with Autism/Asperger’s Syndrome about the thinking process itself (cognition) and how thinking affects behaviour. It is part of a movement to promote greater independence and quality of life for people with this disability.

According to Michelle Garcia Winner, an American Speech Language Pathologist who specialises in Autism/Asperger’s Syndrome, children who have average or above average intelligence, and particularly for older children with this disability, a cognitive approach is the only way to help them learn to help themselves (Winner, 2008). As Winner acknowledges, a cognitive approach to treatment is hard work and progress is slow. These children have to learn cognitively what children following a “typical” developmental pathway learn intuitively. However, as Winner points out, we let this population down by not providing them with the information they need to understand how to engage with society in a meaningful manner.

A Cognitive-behavioural treatment approach helps children with Autism/Asperger’s Syndrome understand the nature of their disability. It also teaches them to recognise and interpret the behavioural responses that neurotypical children demonstrate throughout the day (Winner, 2008). Cognitive behaviouralists believe that if behaviour change is to become ongoing and self-regulating, it can not be based on a simple reinforcement system (extrinsic motivation). Instead, behaviour change must be linked to changed thinking about an individual’s relationship with their world (intrinsic motivation) and more importantly, thinking about their relationship with other people.

To work effectively with someone with Autism/Asperger’s Syndrome you need to develop a strong relationship. To work cognitively is to work relationally, the two go hand-in-hand. On my Fellowship I constantly observed the powerful learning that comes from ongoing human relationships, where both mind and heart are learning together. From a cognitive perspective, mentoring a child or young person with

Autism/Asperger's Syndrome is a thinking relationship conducted in real life contexts.

On my Fellowship I learnt a lot about the importance of teaching children in the contexts of real-life relationships and real-life experiences. I observed many adults thinking aloud **with** the child about their relationship **with** the child. Relational difficulties were not covered up. Disappointments were expressed and worked through, on both sides. Good social cognitive practitioners, and I only visited the best, allowed me to see problems. Everywhere I went I had discussions about the daily struggle of teaching children and young people with Autism/Asperger's Syndrome how to think about the impact of their behaviour on others, including the people working closely with them.

In allowing a child with Autism/Asperger's Syndrome to encounter real-life problems and then teaching them how to work through those problems, you are teaching them how to think. And in the context of relationships, you are teaching them how to think about the impact they have on other people. A meaningful relationship provides the context for learning some difficult but important lessons.

Overseas I spent as much time as I could speaking informally with teacher's aids and parents of students who were receiving their education in mainstream schools. These are the people who engage with the every-day struggle to help children interpret the world around them by teaching them to reflect upon their own thinking and their own behaviour and they do it in the context of everyday life. This is not a task for the faint hearted! But it is also a job for someone prepared to be a "coach" or a "mentor". To perform this role effectively, these people need training in a model that can guide them in performing this important role.

In the USA I spent a great deal of my time studying the social cognitive approach being pioneered by Michelle Garcia Winner. Winner points out the complex nature of teaching social cognition. Before we can act socially, we need to be able to think socially (Winner, 2008). However, the education of students with Autism/Asperger's Syndrome fails to understand the complexity of teaching social learning. Instead they have applied behavioural teachings in an attempt to tidy up "inappropriate behaviour" without exploring whether, and to what extent, the behaviour itself is caused by weak social thinking (Winner, 2008). Anyone who has parented or mentored a child with Autism/Asperger's Syndrome, will understand the complex nature of teaching social awareness to this population.

Winner maintains that the current education system is ill-suited to meet the needs of students with Autism/Asperger's Syndrome. She points out that our current education of children (both disabled and not) is based on the assumption that all students enter school with basic social thinking abilities in place (Winner, 2008). We fail our students before they even enter our classrooms. We assume students understand people have thoughts that may differ from our own. We assume students know how to learn by watching others. We assume students understand that knowledge can be gleaned not just from verbal communication and textbook content, but the vast realm of nuance, innuendo, non-verbal communication and environment that are integral parts of our social world. Furthermore, we assume not only that this social know-how

is in place, but that students have learned how to use basic social thinking to regulate their own behaviour in a group (Winner, 2008).

As a result of my Fellowship I have come to understand more about the complex nature of teaching a student with Autism/Asperger's Syndrome. To again paraphrase Dr Cooper Woodward, when you get their behaviour under control, what then? As Winner puts it, we pat ourselves on the back when a student masters an isolated skill such as waiting in line appropriately, but fail to appreciate the bigger picture. We need to be teaching a student to apply social skills and related social problem solving, across a range of diverse contexts. We have put the proverbial cart before the horse (Winner, 2008).

If my Fellowship taught me anything, it taught me that to be a good mentor, teacher or coach, you need to have a good theory. The following insert offers a window into a cognitive approach to a common problem displayed by children and young people with Autism/Asperger's Syndrome, lack of motivation to get involved.

I Don't Care!

by Michelle Garcia Winner

Many kids with Autism/Asperger's Syndrome say "I don't care," "I don't want friends," "I don't like people," etc. I have heard these lines from primary school kids through to adolescents. I rarely hear these words from adults on the spectrum.

Here is my spin on this. These kids struggle to do something that appears so easy and seamless to everyone else. Those that are "higher functioning" begin to notice that they are not fitting in, but they don't know how to make it right. These kids have sat in "social skills groups" that didn't teach them what they needed to know, or they picked-up the message that "using good social skills" means you have friends. But they sat in the group and they still don't have friends. They start to build walls around themselves and then fortresses: they need to protect themselves from thinking that they are worthless because they lack friendships. (Friendships do in fact help to validate our existence.)

Many of our kids live in fear that they may be "invisible" to all those that surround them across the school day. Some of them will act out seeking negative attention: insulting others, using offensive humor, etc. At least when they do that they get attention from the people they worried did not notice them. It is not the kind of attention most of us like, but they feel at least someone noticed them.

Some kids will spin off into other mental health-related problems of anxiety and depression. These have their own unique challenges and the world of counseling is just learning the unique issues related to anxiety for those who are bright but have social learning issues. Here is my approach:

1. When a kid says "I don't care" and the like and I know they have a social learning problem, I listen to their words but I don't believe them. I know this is where they are *now*.
2. The focus of a social thinking group *cannot* be about making friends, being a friend, hanging out with friends. Instead the focus has to be on what it means to have social ability and on what it means to think socially. How does walking down a school hall relate to thinking about what people are thinking? What do they think about others? What types of thoughts do others have? Who at school do they like the most and why? You will find that the person they like the

most is the person that makes them feel the best about themselves. Help them to learn what they require from others. *Don't* start your treatment by focusing on how they can do things to make others feel good. They aren't there yet!!

3. If I have them in a group, I observe them in that group and note how they go about getting attention from others. Is it always negative? Do they try to use humor? If so, these are moments where the student is trying to relate. Later, when I get their trust, I will point out to them that the use of humor is a great way to relate to people and it is cool to have the ability to make others laugh during the right time and place.

4. I meet with them individually or at the end of the group to touch base and let them know I am trying to "watch their back" and understand their frustration. But I don't give in to their thinking. Often I echo their thinking and let them know that I think it must "suck" to feel like they are alone when they are surrounded by people. They often start to open up about their thoughts about how people perceive them. They don't really want to be perceived the way they are; they just feel pushed into that corner. If you have a counselor available (assuming you are not one), this would be a good person to also bring into the team.

5. Many times we have to remove a kid from the group for a while so they get some time to just learn about the social world and how they are part of it (like it or not!), away from a group of their peers. Keep in mind that being part of a group means you are always in performance mode. A number of our kids can act like real jerks when feeling they have to be "cool" with their peers, but are sweethearts when you can just take some time to talk to them away from the group. Once you get their trust, they will do more to work to conform in the group. But they are still not there yet!

6. Ultimately, the objective is to help them reshape their views on the social world in ways they can understand, with a person they feel is trying to understand them. That said, this does not mean I make the world easy for them. Once I have them working with me, I challenge their ideas and still hold them accountable to how they are making me feel, etc.

None of this is easy. It takes years for some our kids to get there. We often focus so much on academic learning, we do not give them enough direct instruction and rewards for learning to work in a group. We adults often fall flat in being able to provide them with the information they needed to understand how to be part of the world.

To work with them well you have to use as much art as science, or perhaps even more art than science when teaching them about social-emotional relationships. Start by putting yourself in their shoes. I have worked with many challenging kids and have only rarely met a student who is as "mean" or as "rude" as he or she appears to the masses.

Most importantly, these kids need to feel you are listening to them. Not completely agreeing with their views of the world but respecting how truly hard it is to participate with ease with others. Adolescence is a time when we begin to define ourselves as individuals. It is a hard developmental age for almost everyone. Imagine how hard it is for a kid who feels that people outside of his family do not seek him or her out, i.e., as if they *don't care* about them.

A Final thought: if they are mean to you, don't personalise it. Realize it is their first defence against the possibility of experiencing more bad social experiences.

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2. Social Thinking – An Innovative Cognitive Treatment Approach

In the USA, my Fellowship involved a study of the work being pioneered by Michelle Garcia Winner. Michelle Garcia Winner is a Speech Language Pathologist who specialises in working with people with social-cognitive deficits: those with diagnoses such as Autism and Asperger's Syndrome. She calls her cognitive approach to treatment "Social Thinking" and says it was born out of necessity, as a way to reach those "bright but socially clueless" students who need to know more than what social skill to use: they need to know *why* they should bother to use that skill. □□ She first began teaching Social Thinking in 1995 to higher functioning students on the Autism Spectrum when working as a Speech-Language Pathologist for a USA high school district. Twelve years later, she received an Award of Special Congressional Recognition from the US Congress for her development and ongoing innovation of a cognitive treatment approach for students at the high functioning end of the Autism Spectrum. At the same time, the Journal of Autism and Developmental Disorders published research supporting her methods for the treatment of students with Asperger's Syndrome and High-Functioning Autism.

In the USA I attended two of Michelle Garcia Winner's two-day training workshops and completed her three-day Mentor Training program for professionals requiring a deeper understanding of her approach. The Mentor Training program was conducted at her Social Thinking Clinic in San Jose California, which provides services to some 250 people on the Autism Spectrum.

In addition to these training programs, I also visited five schools that use Michelle Garcia Winner's Social Thinking approach and spoke with another five professionals using her approach in other settings. During these visits I was fortunate enough to observe the progress being made by children and young people using Michelle Garcia Winner's cognitive approach to treatment, as the following story illustrates.

Mitch

I was sitting in the back of a class in a High School in a southern suburb of Chicago, observing a lesson based on Michelle Garcia Winner's Social Thinking material. The lesson involved the class discussing their understanding of their own faulty thinking and how their misperception of events was getting in the way of their social relationships. Up to that point, I was astounded that so many teenagers with Autism (there were twenty students in the class) could be so self-reflective about their own thinking process and the impact their "thinking style" was having on other people.

A student suddenly asked the teacher to stop the lesson because he was concerned about how their guest (me) was feeling. The teacher asked me if it was OK for this student to check how I was feeling. When I agreed, the student explained that he was concerned that I might be uncomfortable listening to students talking about such personal information. Get it? He was thinking about what I was thinking. He was demonstrating the ability to overcome the deficit that goes with Autism. He was demonstrating Theory of Mind or Perspective-Taking, the ability to think about what another person might be thinking and feeling. I was mightily impressed.

3. Creating a Cognitive Framework - for Understanding Autism/Asperger's Syndrome

When you study Winner's work, one comes to understand the prominence she places on Theory of Mind or Perspective-Taking, as an indicator of potential outcomes for children with Autism/Asperger's Syndrome. In understanding this aspect of brain functioning in a child with Autism/Asperger's Syndrome, one starts to create a cognitive framework for understanding Autism/Asperger's Syndrome as it manifests in each individual.

According to Michelle Garcia Winner, the lack of formalised assessment tools to identify and quantify social cognitive deficits in students with Autism/Asperger's Syndrome, along with the lack of access to services, create stumbling blocks for families and concerned teachers all over the United States. Students at the high functioning end of the autism spectrum all exhibit cognitive deficits in their ability to utilize appropriate social skills across a variety of contexts. However, standardised tests are not sensitive enough to identify the significance of these deficits. Yet these social cognitive deficits continue to affect children and young people with Autism/Asperger's Syndrome in the classroom, in the work place and in the community. In order to use a cognitive treatment strategy, it is important to have some understanding of the impact autism has on the cognitive development of the brain.

Three major theories guide our understanding and exploration of cognitive development in people with Autism/Asperger's Syndrome. Most professionals who study cognitive learning disabilities acknowledge that these three concepts help describe the deficits associated with autism. The concepts are:

1. Central Coherence Theory (Frith, 1989; Happe 1994);
2. Executive Dysfunction Theory (Ozonoff, Pennington & Rogers, 1991; McEvoy, Rogers & Pennington, 1993; Russell, 1997);
3. Theory of Mind (Baron-Cohen, Leslie and Frith, 1985).

Central Coherence Theory points out that most people on the autism spectrum are weak in their ability to conceptualise whole chunks of information. They demonstrate a preference for attending to details and relying on their rote memories to make sense of the ever-changing world around them. A lack of cognitive central coherence or "gestalt" processing (seeing the big picture), can easily cause a person to miss the importance of the subtle cues that create meaning in a social context, including the difficulty of intuitively understanding the main idea of a conversation or a passage in literature. In short, they tend to think in parts and do not fully relate pieces of information back to a larger pattern of behaviour and thought.

Executive Dysfunction Theory is similar, in that it acknowledges that people with Autism/Asperger's Syndrome are weak in their ability to orchestrate tasks towards a desired outcome. Executive Functioning is generally considered to describe the set of skills an executive would need to stay on top of his or her job; planning, organizing, prioritising, multi-tasking. Executive Dysfunction may make it difficult to maintain a topic in a conversation due to difficulties a person with Autism/Asperger's Syndrome has maintaining a sense of order in their spoken messages, often producing tangential

responses. They may also have difficulty with the organisation of written expression or independently planning to complete class assignments. In short, they have difficulty solving problems, communicating effectively and creating organisational structures that allow for flexibility and prioritisation. They crave structure but have difficulty creating their own healthy structures. They have difficulty learning the complex skills of managing homework and school assignments, solving problems, appreciating the perspectives of others – all skills needed for achieving independence.

Theory of Mind refers to the difficulty people with Autism/Asperger's Syndrome have considering the perspective of others, such as their emotions, motives and intentions. By failing to understand another person's perspective, people with Autism/Asperger's Syndrome tend to misinterpret communication (Tager-Flusberg, 2000). They also tend to talk at length about their own topic of interest because of the difficulty they have monitoring and responding to the social cues/social needs of their communicative partner. In an effort to better explain this important concept, Theory of Mind has also been tagged *lack of theory of other minds* (Frith and Happe 1999) and *Perspective-Taking* (Winner 2002). Throughout this paper the term Perspective-Taking will often be used to denote Theory of Mind. Whatever term one uses to describe this cognitive ability, throughout my Fellowship, Theory of Mind or Perspective-Taking was viewed by practitioners as a dominant deficit in autism and an important issue to address in treatment.

A Global Processing Deficit? Twachtman-Cullen (2000) indicates that many of the social skill deficits observed in people with Autism/Asperger's Syndrome, may have their genesis in the lack of ability to decipher subtle meaning from the environment, in part due to all of the above mentioned theories. In other words, people with Autism/Asperger's Syndrome have a global processing deficit that prevents them from monitoring and responding to the social cues and social needs of other people.

Winner (2007) offers the view that Perspective-Taking/Theory of Mind, Central Coherence and Executive Functioning are synergistic cognitive processes. A weakness in one co-mingles with dysfunction in the others. Winner maintains that based on her clinical observations, there appears to be a strong positive relationship between a person's Perspective-Taking deficit and his or her corresponding level of deficit in Central Coherence and Executive Functioning (Winner, 2007). Michelle Garcia Winner is one of the few practitioners I have found who advocates the use of homework to teach Executive Functioning skills. The following is adapted from her article on Homework.

Homework and Beyond

Teaching Organisational Skills to individuals with Autism/Asperger's Syndrome

I am regularly asked: if homework tasks are so overwhelming to their Executive Functioning systems, should we just avoid having students deal with homework? The answer is an unequivocal, emphatic "NO!" Organizational skills are life skills, not just school skills, and even though they are "mandatory prerequisites" for succeeding at school, like social skills they are rarely directly taught. Fostering organisational skills in students with Autism/Asperger's Syndrome requires an evolutionary approach towards teaching these skills, one that is ideally started at an early age. Students hone organisational skills starting in preschool, when we first ask them to clean up their toys. Teachers can accurately identify "organised" versus

“disorganised” students as early as kindergarten. By 4th grade teachers expect students to be proficient with Executive Functioning skills. However, the reality is that the majority of students with Autism/Asperger’s syndrome desperately need help with homework specifically, and Executive Functioning skills in general. Michelle Garcia Winner has a 10 Step program to assist students develop their Executive Functioning Skills around the area of homework. You can find the homework article at Michelle’s Garcia Winner’s website www.socialthinking.com

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4. Perspective-Taking – A Focus for Treatment

Winner indicates that a deficit in Perspective-Taking skills or Theory of Mind, accounts for the most significant challenge faced by students with social cognitive deficits. In other words, their inability to relate to others at the pace of a typical human interaction, causes their most significant communication challenges (Winner, 2007).

Winner has come to the conclusion, based on her years of clinical work with people who have Autism/Asperger’s Syndrome, that Theory of Mind or Perspective-Taking plays a key role in a person’s ability to relate to others, not only for the purpose of social interaction, but also to interpret meaning and to solve problems, skills that are also critical for academic work and for living independently as an adult.

Winner views Perspective-Taking as a social “Executive Functioning” task, because it requires processing and responding to multiple levels of information simultaneously and within an incredibly limited time frame (1-2 seconds). She explains that Perspective-Taking requires a person to consider not only their own thoughts, but also the thoughts of the person(s) with whom they are communicating (Winner, 2007).

Based on her years of clinical experience, Winner hypothesizes that the Perspective-Taking abilities a child develops by early primary school, has a direct impact on their later ability to develop and functionally use verbal and non-verbal language and nuance to engage in increasingly sophisticated interactions as the child ages. According to Winner’s hypothesis, children with sustained weaknesses in the area of Perspective-Taking, even if they have solid cognitive and emerging language learning abilities, often demonstrate difficulty with higher-level forms of language, including abstract interpretation of meaning. Children with severe deficits in Perspective-Taking, Winner maintains, may be unable to develop verbal and non-verbal communication skills that move them beyond the initial, but very important ability to focus on their own desires, needs and thoughts during communicative interaction (Winner, 2007).

One of Winner’s key phrases is: every person has the ability to learn, however every person does not have the ability to learn the same information. Winner maintains that because she has always worked with adults as well as children, she has had many opportunities to observe what happens when children are taught a standard educational curriculum without regard to their level of Perspective-Taking or social interpretive skills (Winner, 2007).

Winner tells the story of Sarah, a 22-year-old woman with Asperger's Syndrome, to illustrate the importance of understanding the impact of Perspective-Taking deficits in determining outcomes. In telling this story, Winner points out that it is critical for educators, administrators and parents to realise that people with social cognitive deficits, even those with exceptionally strong cognitive and language skills, have to learn much more than the standard curriculum in their primary through high school years, to prepare them for adult independent living (Winner, 2007).

Sarah

by Michelle Garcia Winner

Sarah graduated from high school as a merit scholar with confident hopes for success in college given her academic accomplishments in high school. Her first year at university resulted in dismal failure, as she could not keep on top of the organisational and communication demands expected of a university student. Sarah was sure that her failure was due to problems with the university so she transferred to a different university where once again she failed. Sarah then moved back home and worked for a small non-profit agency where she could focus on developing her computer knowledge. Sarah was able to succeed in the small nurturing environment of the company who appreciated her contribution given her strong technical knowledge. During this time Sarah also took a couple of classes at the local junior college. The combination of working in an environment that supported her cognitive skills while taking a reduced number of classes at college, provided for a successful year. Armed with this success, Sarah moved back to her original university. While initially doing well, as soon as she felt overwhelmed by an assignment, she "completely shut down". Once again, her lack of communication, problem solving and organisational skills led to her academic failure. This time, the university asked her to not return. Left on her own while barred from attending university, Sarah isolated herself in her apartment, refusing to leave even for a community Asperger's support group meeting. At the same time she tried to assure her family that she would work it out all by herself. Her parents ultimately insisted that she move back home. Upon returning home Sarah had to cope with the humiliation of academic failure and the realisation that she had not learned to develop skills for independence at college, even though she received awards for her academic accomplishments in high school.

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Winner points out that special education in the USA is based on helping students learn to thrive in "least restrictive environments" where they can live with "increasing independence." It is not uncommon therefore, to interpret these concepts to mean that all children will be able to function independently as adults, as long as they are blessed with good teachers who are familiar with the latest educational techniques. While Winner strongly believes that all students can learn and improve their functioning relative to who they are today, she maintains that not all students have the ability to learn at the same pace or the same lessons. Winner insists that if we try and teach all children with Autism/Asperger's Syndrome the same lessons, we can easily overwhelm some students and send them into behavioral and mental health spirals.

I will personally hold the director of special education accountable!

Winner tells the story of a parent of a 12-year-old child with significant mental retardation, very limited communication skills and extremely limited Perspective-Taking abilities: "If my child is not able to live and hold a job in the community independently by the time he is 18 years old, I

will personally hold the director of special education accountable!" Winner makes the point that we have not done a sufficient job helping parents learn how their children's learning differences will likely impact their children's outcome, even with the best of teaching.

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In an attempt to address this need, Winner proposes 3 levels that categorise a person's ability at Perspective-Taking. She maintains that these three levels can be used to predict related outcomes for persons with these deficits.

According to Winner (2004), children with social cognitive deficits can experience enormous changes in their language, behavioral and relational abilities during their early developmental years (ages 0-5). A child with very weak communication and behavior skills at age 3, may have a very different command of the world by age 5. However, once children enter the 1st or 2nd grade we begin to see some consistency in their learning abilities across their life. Winner offers the following three different levels of Perspective-Taking for children who are at least in 1st or 2nd grade. Winner warns that because no one model applies to all people, this information should be perceived as a guide rather than as a set of facts. The following categories are reproduced with permission. A guide to making an assessment of a child's Perspective-Taking ability can be found in the next section of this Report.

Level 1: Severely Impaired Perspective-Takers (SIPT)

Students in the SIPT category generally have mental retardation that accompanies a diagnosis of autism. These students have extremely limited abilities to understand the perspective of others even if given clear explanation, visual information and time to consider the information. However, they enjoy being in the presence of others, much of the time, as long it is clear what others want from them in the environment. The following points outline some specific traits that might be observed in primary school and beyond and have been reproduced with the permission of Michelle Garcia Winner.

Severely Impaired Perspective-Takers

1. Generally they learn about the expectations others have for them through routine experiences. Changes in expectations/routines even if explained, can be very distressing and cause significant behavioral reactions.
2. Weak development of language. Nearly all of these students are non-verbal or minimally verbal. These students are prone to behavioral distress given their lack of functional receptive and expressive communication skills.
3. They can make gains in communication with augmentative communication systems and/or verbal language, however most spontaneous communication is related to the student's specific wants and needs in the form of making requests. Comments with language, if the student does comment, are usually to reference a thought he is having without the ability to explain clearly to his listener what he is thinking.
4. Loves and enjoys people in his/her family as well as familiar educators, friends, and so forth. Has great difficulty relating to people based on what other people might enjoy doing. However, they are often happy to receive and give hugs when they feel good. The presence of their loved ones can help to relax them.

5. Unless highly routine, participation in reciprocal communication or interactions with adults requires a highly structured environment to help the student follow through with an activity.
6. Given their very limited ability to consider the perspective of others, they have great difficulty learning and maintaining their attention as part of a large group. Most of these students do best in a 1:1 learning environment or in a very small group.
7. Very limited expressive and receptive interpretive language skills. These students are very literal in how they perceive the world and how they express themselves.
8. Great difficulty engaging in a discussion about the different belief systems of two or more people, given that this type of concept is not apparent to them.
9. Can learn skills that are factually based. In addition to learning to use a communication system (verbal, augmentative or both), many of them have abilities to do basic maths, basic writing, and acquire reading decoding and basic comprehension skills.
10. Will do best when their education focuses on their own understanding of the world and introduces them to community events and expectations. They usually enjoy being out in the community and are best at learning when provided with opportunities to participate in events that are highly structured and fulfilling to them. This may include grocery shopping, food preparation, functional math skills, and job skills in an environment they enjoy. Learning in these environments is the most efficient given the intrinsic motivation that community and functional experiences provide.
11. Difficulty learning conceptual information that they cannot relate to. This includes learning from textbook or other types of information that do not intrinsically make sense in their daily experiences.
12. Clearly have cognitive strengths in specific areas of academics, sports, arts or leisure. These should be celebrated and encouraged.

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Students with the above profiles will most likely need strong supported living across their adult years in all environments: community/work, leisure and home. Due to their tremendous difficulty learning as part of a larger group, they generally require close supervision in the teaching environment. Paraprofessionals are important members of their educational treatment team. Progress will continue to be celebrated across their lives as long as adults are there to continue to encourage and support new learning. They are wonderful people who can exhibit enjoyment, love and good sense of humor when they feel comfortable and secure (Winner, 2004).

Level 2: Emerging Perspective-Takers (EPT)

Emerging Perspective-Takers may have mild mental retardation to advanced cognitive skills with a solid emergence in the use of verbal or augmentative expressive and receptive language skills to communicate their daily needs. By upper primary school they understand that other people have some level of different thoughts, emotions and experiences however *they need to think long and hard* about this before they can figure out what they might be. Perspective taking for the EPT student might be considered “social algebra.” It is not that they are without the ability to consider other people’s thoughts and emotions, they just often need guidance to consider, incorporate and react to the information they are acquiring.

From Winner’s clinical experience, it appears that one of the critical issues with this population is the amount of time and guidance it takes to think through what others

might be thinking. Normally a communicative message is processed and responded to within 3 seconds, so students who require 20 minutes to consider and respond to others are perceived as having a serious disability that impacts their social and academic functioning, even when cognitive and academic testing may reveal a number of areas where they function in the normal to above normal range. The following points note some specific traits that might be observed in primary school and beyond and have been reproduced with the permission of Michelle Garcia Winner.

Emerging Perspective-Takers

1. These students use verbal language or sophisticated computer driven augmentative communication systems to convey their ideas to others. However, given their deficits in perspective taking they will exhibit difficulty in the following areas:
2. Narrative language skills: being able to consider other people's prior knowledge to describe clearly and efficiently information for others to comprehend about their life.
3. Pronoun referencing: will most likely have difficulty understanding pronoun references and use them appropriately in their own early communication in early elementary school and possibly beyond that time.
4. Grammar may be immature and lack elaboration.
5. Tendency towards strong literal expressive and receptive language.
6. Language is often self-focused with difficulty focusing on the thoughts or needs of others.
7. Difficulty answering "how" and "why" questions, strikingly better at answering the factual "who, what, when, where" questions.
8. Tendency towards an over-focus on detail rather than conceptualization of ideas. For example:
9. Communication may be highly tangential as they have difficulty tracking the underlying concept of that is being discussed.
10. Reading comprehension is best at the factual level, great difficulty understanding the main idea of a passage or book.
11. Tremendous difficulty with social pragmatic skills even though they may attempt to spontaneously engage in social interaction with others.
12. Given the social nature of group learning, they have difficulty participating and learning as part of the larger group in classrooms even though they may be educated in a large group setting given their stronger cognitive abilities. Generally they need directed instruction from a paraprofessional or educational specialist within the large group setting to help them maintain attention and break down concepts so that they can understand what they need to do.
13. Overwhelmed by organizational tasks.
14. Difficulty with personal problem solving and asking for help.
15. Difficulty with written expression
16. Need direct instruction about life skills such as hygiene, shopping, money management, employment, cooking, cleaning, budgeting since they do not easily infer information or learn through observation.
17. Demonstrate love, companionship and personal preferences with regard to the people they choose to share their friendship. They desire social interaction but have difficulty initiating and sustaining it particularly with their own peer group. Do best with highly structured social situations.
18. Clearly have cognitive strengths in specific areas of academics, sports, arts or leisure.

These should be celebrated and encouraged.

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Students who match these profiles show potential for directed instruction about the concept of Perspective-Taking using very explicit and visual teaching techniques such as comic strip conversations, social stories, clear explanations and role play. While they continue to struggle in this area, small gains are wonderful experiences as they can relate better to others with each small step of learning. They also have good abilities to continue to learn across their lives, however they will need to have alternative curriculum lessons during their school years to help them learn directly about life skills for work, college, leisure and home-life. While in school, if taught in large group classrooms, they generally need a paraprofessional or special educator nearby to help them better conceptualize the information being taught (Winner 2004).

Adults with emerging perspective taking skills may be able to live and work with relative independence in the community, after a routine has been established across these environments. At the same time, they will need a support team nearby throughout their life to assist with problem solving complex situations that arise in daily life such as changes in job demands, job searches, budgeting, moving living environments or difficulties encountered in personal relations at work or in the community. As long as they are motivated and have helpful adults near by, they will continue to learn more sophisticated concepts. They need assistance with breaking down complicated concepts into small more concrete parts. These adults seek friendship, have a great sense of humor and can celebrate the progress they are making (Winner, 2004).

Level 3: Impaired Interactive Perspective-Takers (IIPT)

The Impaired Interactive Perspective-Taker (IIPT) is the student who looks like everyone else at school, at least initially. The IIPT students have solid to advanced cognitive skills with solid language development. They have a lot of information about the world and will comment openly about their areas of interest. Socially, they are very interested in pursuing peer relationships and they understand the “superficial social rules,” meaning they are aware that there is an underlying rule-based system that helps to negotiate social situations. They can tell you the more concrete social rules such as stand in line, say please, and don’t interrupt, however, they have a great deal of difficulty perceiving how those rules apply to them. They have poor self-awareness. They are far less aware of the more subtle or sophisticated rules or non-verbal signals that help to mitigate social relationships as students’ age. While these students may appear “normal” on the outside, there are differences in how they process and respond to the more socially abstract information. It is not uncommon for younger students with IIPT to turn in their peers for breaking rules on the playground, while not being aware that the act of turning in a peer breaks a far greater social rule. Their struggles with social interpretation and abstraction become more evident as they age given the increasing complexity of social interaction and academic interpretation (Winner, 2004).

They are called “Impaired Interactive Perspective-Takers” because their greatest deficits become apparent at the moment of interaction with their peers. Adults are far more flexible in accommodating to a single-minded conversation, but peers are

unrelenting in their requirements that interactions be reciprocal. Peer-based interaction requires not only the formulation of thoughts one might wish to communicate, but also persistent monitoring of how others might be interpreting or responding to the message so that the message can be adjusted as needed to meet the needs of the communicative partner. This is a social Executive Function task (Winner, 2004).

In addition to difficulty with reciprocal peer interaction, the following points outline other issues common for this group. However, given their strong academic and language skills demonstrated on test taking, the challenges to these students are not easily revealed. More commonly their challenges come to light in late childhood or early adolescence when they start to demonstrate feelings of depression, inadequacy or lack of being able to relate to others through sustained friendships (Winner, 2004). The following have been reproduced with the permission of Michelle Garcia Winner.

Impaired Interactive Perspective-Takers

1. Great difficulty with organisational tasks; their organizational struggles are deep and require a lengthy intervention to help them conceptualise, task analyse, manage time etc. They also need assistance with Perspective-Taking, functional communication and problem solving.
2. Difficulty with written expression. This relates to weaknesses in fine motor control (penmanship) as well as conceptualising and pre-organizing the material.
3. Deeper reading comprehension that requires a strong analysis of the social-emotional nature of the characters being explored in literature or history.
4. Some students have tremendous difficulty understanding Maths concepts.
5. Abstract thinking and making inferences. They tend towards more literal interpretation, making it difficult to be flexible in deriving meaning (verbally and nonverbally) quickly during communication.
6. Social relatedness as described above. Given that they do have “superficial” knowledge of social interactions they generally do well on standardised tests exploring social pragmatic knowledge, however functionally they struggle tremendously. It is difficult for them to get adults to understand the level of their deficits as they have a good vocabulary and physically look like their peers. Unfortunately, their peer group very quickly notices subtle “quirks” and can be very unforgiving.
7. Tendency towards perservation on specific themes or topics both in their spoken and written expression.
8. Limited social experiences in the community. May need assistance learning to navigate shopping, job interviews, adjusting to the “hidden curriculum” of the job as well as pursuing social relationships in less structured environments.
9. Very confused when it comes to dating, despite a strong desire to develop these relationships.
10. May lie to avoid dealing with situations that overwhelm them.
11. Difficulty participating in group activities, including in larger classrooms group and smaller academic workgroups with peers.
12. Most likely of all the 3 levels of perspective taking to get teased/taunted by their peers.

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These students are generally taught in the mainstream educational environment, however they benefit from direct instruction in social thinking and related skills for

managing the complex requirements of the older child and young adult. They may be the least likely group to require the assistance of a paraprofessional, but they do benefit from special educators who offer insight into strategies that help them break down tasks, (academic and social) to prevent them from feeling overwhelmed (Winner, 2004).

In addition to the social challenges (which often lighten up a bit in high school), as these bright students go to college some of their greatest challenges will come from their failure to seek assistance or clarification, and from their organizational/problem solving weaknesses. While we might describe these folks as having a “mild” disability, given their many academic or cognitive strengths, actually due to their difficulties learning the complex skills of functioning as adults, their deficits are not at all mild. Many parents contact Winner’s clinic to seek assistance for a 20 or 30-year-old child with IIP who has not developed skills for independence with regard to life and work skills (Winner, 2004).

This group has the greatest likelihood for full adult independence, however, they may be slower than their neurotypical peers at achieving it. As they get older they also become more keenly aware that they are not able to process social information quickly and efficiently. This can be a source of great frustration that does not calm just because they are getting older (Winner, 2004).

Even if these folks make the choice to live with fewer opportunities for social interaction, they desire to be able to function in groups and to have close friends. They are generally terrific, friendly people with a good sense of humor when they feel comfortable (Winner, 2004).

Winner maintains that ultimately all students should be provided, at the very least, with an education that facilitates the development of skills for success in life, whether this is to achieve a higher level of education, participate with increasing independence in the work environment and seek leisure activities in the community. Given that students have different learning abilities we have to be reminded that they also need different curricular standards to facilitate this goal of education: to live and work successfully in our communities (Winner, 2004).

Michelle Garcia Winner developed the notion of a Perspective-Taking Spectrum with the intention of providing a framework to foster more specific instruction for our wide range of students with social cognitive deficits. As Michelle says in her training, we as parents and educators need to improve our own abilities to describe and discuss our childrens’ level of functioning to create realistic expectations and more finely tuned educational treatment plans.

Michelle Garcia Winner’s concept of the three levels on a Perspective-Taking Spectrum has been taken up by enlightened educators and therapists across the USA and is being used to do just that: to create realistic expectations and more finely tuned educational treatment plans. Like many others in the USA, I found the assessment process used by Michelle Garcia Winner to categorise Perspective-Taking, one of the most useful tools I have brought back to Australia. Training on assessing Perspective-Taking abilities is provided in Winner’s Mentor Training program.

5. Assessment - Winner's Social Thinking Dynamic Assessment Protocol

One of Michelle Winner's most unique and useful tools is her Social Thinking Dynamic Assessment Protocol. Winner uses this tool to identify and quantify in real-life terms, a student's social cognitive/social language skills (Winner, 2007). The assessment provides an opportunity to better understand a student's pragmatic language skills and their social interactive functioning. This insight provides teachers, parents and other service providers, with a more thorough understanding of the "unseen" challenges that affect a student's learning and social interaction.

Over her years of experience, Winner has found that the Social Thinking Assessment Protocol, because it provides an opportunity for the person administering the test to interact with the student, yields results more reflective of a student's social cognitive functioning than standardised tests. Knowing the extent of a child's social cognitive deficits, enable specifically targeted training to address weaknesses. Winner maintains that students with Autism/Asperger's Syndrome will most likely struggle significantly as they approach adulthood, and be socially impaired for the rest of their lives, without such targeted training.

Information about Michelle Garcia Winner's Social Thinking Dynamic Assessment Protocol can be found in her book *Thinking About You Thinking About Me*. I am also happy to discuss this assessment tool with anyone who cares to contact me.

I received instruction in how to use Winner's assessment tool when I undertook Michelle's Mentor Training program as part of my Fellowship. I was fortunate enough to observe Michelle conducting an assessment on a child who was flown in from overseas, specifically for this purpose, by their parents.

One assessment exercise in the Social Thinking Dynamic Assessment Protocol is the Double Interview. It consists of interviewing the child about their life at home and at school, then turning the tables and asking the student to interview the interviewer. Winner uses pictures of her family as an information source to aid the student in conducting the interview. When I conducted the Double Interview with one of my students back in Australia, this is what happened.

The Double Interview

I was using the "photos of my family" section of the Double Interview. At one point I asked the student undertaking the assessment to look at a photo of me standing next to my wife. I asked him if he could work out from the photo what relationship the other person in the photo had to me. He replied that because he didn't know the person, he didn't know the answer. I asked him if he could make inferences or guesses about my relationship to the person by looking for clues in the photo. He thought for a long time while continuing to stare at the photo. He finally told me that he would need to use the internet to find the answer to my question. There must be a website somewhere, he told me, where he could upload a scanned copy of the photo and the website would run a facial recognition check and then email him the answer. I asked him whose photo album it was? Yours, he replied. I wonder who would know who that person standing next to me in the photo was, I inquired. The internet, he replied. When I had exhausted every possible way of asking this question and still got the internet as a

response, I explained that he could ask me, because it was my photo album.

I then asked him what question he could ask me to get the answer. He didn't know. I then taught him how to ask the question. It showed me that while he had good expressive language skills and a high IQ, he had a poor ability to initiate communication, which meant he didn't know how to ask for information. This is a common problem in the classroom where students don't know how to ask for help, especially when they need to clarify instructions. This is linked to poor Theory of Mind or Perspective-Taking skills. He had much difficulty making inferences. He finds machines, such as computers, easier to fathom than people because of his limited skills in this area.

This student's performance on the Double Interview highlighted his problems making friends in the playground and also explained problems he was having in the classroom. Academic and social problems can be traced back to the same cause, as you will see in the next section of this paper. In the past, this student had been "punished" for his Theory of Mind or Perspective-Taking deficits. Teachers assume that because he is very bright, he must be naughty because he refused to start work. In fact he didn't understand the task and didn't have the skills to know how to ask for help.

If you agree with the notion that Theory of Mind or Perspective-Taking is a critical deficit in Autism/Asperger's Syndrome, then it makes a lot of sense to assess the extent of this deficit in an individual, and to then use this information to inform treatment strategies.

Having completed hundreds of assessments over the years, Winner concludes that student errors in interpreting the pictures during the Double Interview seem to fall into four general categories:

1. Limited ability to shift perspective.
2. Difficulty reading other faces.
3. Limited accounting for contextual cues.
4. Limited ability to make inferences.

Winner provides many appropriate, cognitive based treatment strategies to address these deficits. Her book *Think Social* is full of useful lesson ideas.

6. Academic Performance - How Social Skill Deficits Impact the Classroom.

Schools use the early intervention model to address the traditional struggles that many young students experience learning core academic skills, such as language, numbers and reading. □ According to Winner (2007), students with social thinking challenges often have the reverse problem with learning. They acquire factually based academic skills with relative ease. Their struggles emerge as they progress through Primary School and into High School, where they are required to use complex critical and social thinking skills to interpret and respond to information presented in the classroom and beyond. At the same time that the school curriculum requires a student to demonstrate a higher level of critical thinking, a more sophisticated set of social skills are also needed to relate to peers. Adolescence is the time when teenagers develop a more sophisticated and nuanced level of social thinking. This is the period

when students with Autism/Asperger's Syndrome are most at risk of being left behind, due to their social cognitive deficits (Winner, 2007). □□

The same skills that the other kids develop during social interactions and play, i.e. the ability to think about others, observe what they were doing, predict what they will do next, getting an idea how the overall social play is organised, determining the feelings of others, keeping their bodies at appropriate distances to interact but not so close as to offend, and forming language to add to the play, are the exact same skills needed to work as a member of a group in a classroom. Neurotypical children have been learning these skills since they were toddlers, the learning children acquire through play has been well documented (Hirsh-Pasek & Golinkoff, 2003). These play skills also appear to be incredibly important in helping students to learn how to interpret social information that is embedded in their academic studies (Winner, 2007).

Reading comprehension and the study of literature, social studies and history all require an understanding of other people's motives, intentions and emotions. If a student does not understand that other people have minds that think differently from their own, they will struggle to comprehend literature. When reading a story, a neurotypical student will understand that they do not know the character and as they read, they look for clues and make predictions and assumptions about the character's thoughts, emotions, motives, etc. A student with Autism/Asperger's Syndrome will struggle with this aspect of understanding literature because of their Perspective-Taking deficits (Winner, 2007).

Another related academic difficulty is likely to be written expression, as one has to narrate language to help the reader understand the writer's thoughts. If you don't understand that you have to explain to another person what you are thinking and feeling and help them predict what is coming next, how can you effectively write a story? Written expression can even be impacted when a student has difficulty getting his thoughts organised around a topic that is not intrinsically interesting to him (Winner, 2007). You can start to see the impact cognitive deficits such as Theory of Mind/Perspective-Taking, Executive Dysfunction and Central Coherence can have on a person's academic performance.

Need more convincing? Mathematics that requires a student to make any form of prediction or estimation or make an interpretation about a word problem, indeed anything that requires a student to move beyond the facts and provide some level of interpretation and analysis will cause students with Autism/Asperger's Syndrome problems. Weak Theory of Mind/Perspective-Taking skills will directly impact the student's ability to make predictions. Weak Executive Functioning skills will hinder their ability to organise the facts in a logical sequence. Weak Central Coherence skills will hinder their ability to put the whole picture together and solve the problem.

The same cognitive deficits that affect a young person's play also affect their academic abilities. It is worth repeating Winner's (2002) notion that Theory of Mind, Central Coherence and Executive Functioning are synergistic cognitive processes. A weakness in one co-mingles with dysfunction in the others. A person with Autism/Asperger's Syndrome will have problems with social play and with academics for the same reasons. You can see the importance of assessing a child's strengths and weaknesses in these areas of cognition before developing a treatment

plan.

Michelle Garcia Winner uses the story of Doug to illustrate the social cognition problems that impact on a student's ability to interact with others in the playground and with their ability to understand academic tasks in the classroom. Doug's story is reproduced with permission.

Doug

by Michelle Garcia Winner

Doug has difficulty playing during recess. He walks around the playground talking to himself, not being invited to play by students. He clearly is "different" from others in that he has not intuitively developed skills for playing, even now that he has special teachers working with him. Relating to kids his own age continues to be a problem of primary focus for his educational team. Doug has difficulty paying attention to what other people are thinking by watching them. Other kids can figure out if they are welcome to join a group, what the group would do next, how the group is organized and how each of the kids feel about the other kids they are playing with. Doug does not even realise how important these skills are, thinking about others and their thoughts. He does not understand why kids think it is so much fun to play together. In addition, he also does not appear to know how to keep his body in a group and he fails to use eye contact, except when cued. Verbally, Doug loves to talk about things of great interest to him. For a fourth grader, he has amazing knowledge about space and NASA. He happily talks to adults and children alike about this topic, even if they do not have the time or interest in what he is saying. Doug thinks that communication is talking about what he likes to think about. He feels that most of the other kids at school are not good students because they don't think enough about important things like he does.

Doug's parents are aware that he is quite different in his social development from their other children. However, he appears to be so smart and determined to learn information that is of interest to him that they do not perceive him as a child with learning problems. The school district gave him tests that indicate a solid intelligence, and language and academic skills at grade level. While everyone knows that Doug is not like most of the other kids in class, his peers think Doug is quite "odd." His teachers appreciate Doug's intelligence even if he has a hard time functioning in a group. They report he is reluctant to study topics that are unrelated to science and space. Adults think he is charming given that he is polite and has so many interesting things to say. The same skills that the other kids develop during social interactions and play: the ability to think about others, observe what they were doing, predict what they will do next, getting an idea how the overall social play is organised, determining the feelings of others, keeping their bodies at appropriate distances to interact but not so close as to offend, and forming language to add to the play are the exact same skills needed to work as a member of a group in a classroom. Doug's peers have been learning these skills since they were toddlers.

These play skills also appear to be incredibly important towards helping students to learn how to interpret social information that is embedded in their classroom studies. Reading comprehension of literature, social studies and history all require an understanding of other people's motives, intentions and emotions. Maths estimation and word problems require a student to move beyond the facts and provide some level of interpretation and analysis. Written expression can even be impacted when a student has difficulty getting his thoughts organized around a topic that is not intrinsically interesting to him.

One thing that Doug's teachers do notice is that 4th grade for Doug is a lot harder than 3rd

grade. He is noticeably more anxious during class, he is not learning how to organise his many materials well and his classmates seem increasingly aware that he is not someone they could easily work with. During an IEP meeting for Doug, his parents express growing concern about his lack of abilities. They know Doug feels badly that other kids seem to be able to be happy with each other and he feels left out. They also see that Doug's social weaknesses persist at home. It is difficult for him to be a part of their dinner table discussions. He often gets up and wanders away when he feels he is done eating, yet they have discussed their expectation of eating together, as a family, many times. His parents request to have Doug learn to have a conversation with others as the focus of his speech and language sessions. They think other goals will be beneficial for Doug, such as using good eye-contact, maintaining a conversation and taking turns when talking.

Doug's speech language pathologist, school psychologist, occupational therapist and classroom teacher agree with his parents' descriptions of Doug's lack of "social connectedness." However they want to take a different approach to helping him. They recommend exploring what "social thinking building blocks" Doug is missing. The lack of these skills causes him to have such difficulty in his play, conversational skills, and interacting as part of a group. Within his academic learning demands, an increasing problem is noticed in his ability to comprehend what he is reading when it relates to social information or less interesting topics. He also continues to struggle with written expression and overall organisation of his materials.

The team recognises that Doug does not fully appreciate how he is suppose to think about others, whether he is playing, talking or reading about characters in a book. They want to write a goal to help Doug explore how to think about other people. They also want to teach Doug to explore what kids are likely thinking during play, what teachers are likely thinking when they ask kids to work in groups and what characters are likely thinking when he reads about them in books.

As the team continues their discussion they realize how many skills spring from thinking about others during play and within a classroom setting. It is determined that Doug needs to become better at learning to watch or observe others. A goal is written to help Doug figure out what people (students and teachers) were planning to do next. They plan to help Doug learn to "read" other people's eyes so that he can start to see, that where people are looking, often relates to what they are thinking about. They also plan to help him read people's body gestures and body actions so that he can start to figure out what messages the people are saying with their bodies. The team discusses that this is the same type of information students use to interpret what they are reading about characters in a book. It is also the same type of information needed when going out to play at recess, where they need to read body language when they want to join a group.

They also decide to encourage Doug to use language to explore what other people are thinking/talking about so he can learn that social interaction and that communication is more than just talking about his own interests. A plan is made to help Doug learn strategies to remember things about others, since it is much easier to ask people questions if you can remember things that they like to do or that they are planning to do.

Finally, a goal is written to help Doug learn how to talk about his own life in a way that it makes more sense to others. Doug has difficulty figuring out what information he needs to tell people since he often doesn't think about what information people already know or don't know. The team cautions everyone to be aware that when a child is dealing with significant weaknesses in social thinking their learning curve is slow but steady. They help the parents to be comfortable

with the fact that the goals are not focused on an ultimate end product - of achieving success in the 'big ticket social items' - such as spontaneous group play and conversation. Rather for Doug, a student with a very significant social thinking learning disability, the short term goals, for this year and probably next year, will be in helping Doug to build some basic building blocks of social thinking and knowledge. These goals will help him to slowly, but surely, develop skills towards understanding and interacting with peers, learning more about how to participate within a group in the classroom and on campus and being able to interpret and understand more abstract information in his required reading in literature, social studies and even science.

The focus for Doug is to increase his awareness of critical aspects of social information and begin to learn some related social skills. The goals and objectives are clearly not written to make all of Doug's problems 'go away' within a year or even 5 years. The team and his parents agree that while it would be nice to have his difficulties disappear, it is not realistic. However, they are pleased that they have a solid starting point that they expect will break the information down in a way that will assist Doug. These social thinking building blocks will help him to improve one step at a time.

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7. Mentoring – The “Pragmatics” of Learning in Context, at Home, at School, at Work.

The people who spend more time with children and young people with Autism/Asperger's Syndrome, are their teacher's aids and their parents or carers. These are the people who have the greatest opportunity to influence the outcomes achieved by these students. The reason for this is that learning happens in context. It is the role of parents and “paraprofessionals” such as teacher's aids, to put learning into context (Hirsh-Pasek & Golinkoff, 2003).

One common trait for all of us, including people with Autism/Asperger's Syndrome, is the need to explore lessons that are directly related to our own experiences. When you have a Perspective-Taking problem, you don't learn efficiently from talking about someone else's situation (Winner, 2007). The way the mind works, if it doesn't relate to me, then it's not about me, therefore it doesn't teach me about me. The student needs to “buy into” the process. Tips about helping a child “buy in” are covered in a previous section titled “I Don't Care!” But perhaps the most important tool a parent/carer, or mentor has, is their relationship with the child. You know they are “buying in” when they become conscious of the way you impact them. You know you are getting somewhere when they start showing some awareness that their behaviour has an impact on you.

If we are going to expose children and young people with Autism/Asperger's Syndrome to real-life experiences and teach them how to make sense of the world, then we need to train those who work closely with them in how to do this important work. And because of the intensity of this task, we need to train a second line of “mentors” to take over, and ensure that learning is ongoing and that parents are not overwhelmed by the workload associated with this task.

This paper has focused on what we teach children at the higher functioning end of the Autism Spectrum, in order to help them become more independent thinkers and better able to interact with the people around them. During my Fellowship, I explored the

effectiveness of Michelle Garcia Winner's "social thinking" approach, as a way to teach cognitive awareness to children and young people with Autism/Asperger's Syndrome. I observed Winner's approach being used in Clinics that offer social thinking groups, and in Schools that offer special social thinking classes. Ideas for a social thinking curriculum for use in clinics and schools can be found in Michelle Garcia Winner's book *Think Social*.

It is now time to suggest a curriculum for those who work alongside these children everyday, at home and at school. What follows are some suggestions for a mentoring program using Michelle Garcia Winner's concepts, that can easily be used by parents/carers, teacher's aids and other mentors.

Good social skills involve more than direct language-based interactions. A first-line social thinking curriculum should explore sharing space with others, thinking about others in a shared environment and learning to regulate one's own behaviour inline with other people's thoughts and expectations (Winner, 2005). For this reason teaching first-line social thinking skills is best done in the context of a relationship. I am proposing that everyone who spends a significant amount of time with a child or young person with Autism/Asperger's Syndrome, should receive first-line social thinking training.

Skill 1: Mentoring a Child in How to Enter a Relationship.

Because we learn to think about other people in the context of communication with another, Winner's model of "The Four Steps to Perspective-Taking" (Winner, 2007) take abstract concepts and break them down into more concrete parts. This information is also available as a wall poster called "Being Part of a Group" and is a helpful visual tool. The aim for the mentor is to teach the child how to regulate their behaviour by thinking about the people around them. It is important for people with Autism/Asperger's Syndrome to understand that social behaviour is based on social thought. It is important to teach the child how to share space effectively. These concepts should be taught in the context of real relationships and once understood, will make life easier for parents/carers and teacher's aids. Imagine you are in an elevator while you think of each of these four steps:

Step One: When you come into my space, I have a little thought about you and you have a little thought about me.□

Step Two: I wonder "why are you near me?" "What is your purpose for being near me?" "Is it because you are just sharing the space, do you intend to talk to me or do you intend to harm me?" I have to consider all these things in order to keep me safe around people as well as to predict what will happen next.

Step Three: Since we have thoughts about each other, I wonder what you are thinking about me.

Step Four: To keep you thinking about me the way I would like you to think about me, I monitor and possibly modify my behavior to keep you thinking about me the way I want you to think about me.

These steps emphasise that virtually all our time spent in the presence of other people requires active Perspective-Taking (Theory of Mind), and that children with Autism/Asperger's syndrome exist on a continuum of Perspective-Taking abilities (Winner, 2007). Winner maintains that every aspect of communication and sharing – inside and outside the classroom – comes back to these four steps. It's all about teaching the need to consider, not only our own thoughts, but the thoughts of other people in our environment. Social regulation is at the heart of social participation and we each participate socially when we are in the presence of others, even when we are not talking to them! (Winner 2008).

Mentoring a Child in How to Communicate.

Winner's model, "The Four Steps of Communication" helps a mentor to teach a child with Autism/Asperger's Syndrome in how to communicate to other people using the mind, the body, the eyes and language, while explaining why these thinking skills are important.

Step 1: Think about others: Teach the child to think about their communication partner(s). Consider what the child knows about them and what they know about the child.

Step 2: Establish a physical presence: Teach the child how far away their body should be, how to orientate their body to show they are paying attention and explore the use of gestures. Sitting in a park with a child and teaching them to observe others and read body language is a good place to start.

Step 3: Thinking with our eyes: Teach the child that we use our eyes to think about others. Through our eyes we notice how other people use their eyes as part of communication. Our eyes help us think about others and send clear signal about who we wish to communicate with and who we don't. Teach the child to make guesses about what you are paying attention to by teaching them to follow your eye gaze and asking, what are they looking at? Practice with other people.

Step 4: Use language to show others that you are interested in them: Explain to the child that if you approach another person and only talk about yourself or your special interest, people do not think you are interested in them. Teach them how to ask about others and practice discussing topics of interest to you, not the child.

Winner encourages us to take note of how much time we spend teaching children the fourth step of communication without giving great importance to the initial three steps. We assume they know them. Yet consider this, a student can successfully hang out in a group of peers using the first three steps only, but a student can not successfully hang out with others using only the fourth step, disregarding the other three (Winner, 2008). By teaching that communication is a much larger concept than just using appropriate social language, we begin to ameliorate many other aspects of social functioning too (Winner, 2008).

The other two aspects to this notion of a first-line social thinking curriculum for mentors is a common social thinking vocabulary and the ILAUGH model of social cognition. A common social thinking vocabulary helps mentors explain abstract communication concepts in a more relevant and meaningful way. Having all people working with the

child using the same language also helps explain concepts. Examples of a social thinking vocabulary can be found on Winner's website (www.socialthinking.com).

The ILAUGH model of social cognition can be used as a guide to help mentors understand their student's deeper learning strengths and challenges. ILAUGH is an acronym representing the many different concepts we need to consider to help our student relate to those around them, interpret social information in academic lessons, and express themselves in writing (Winner, 2000). The concepts represented in the ILAUGH model describe how most moments during the home and school day requires social interpretation and related social expression. All of Winner's social thinking curriculum lessons have their roots in the ILAUGH model. A detailed explanation of Winner's ILAUGH model can be found in her book *Inside Out: What Makes a person With Social Cognitive Deficits Tick?*

The Art of Mentoring

by Peter Batten

I have often spoken about "experiential learning" as a way to describe what I do. It is the closest thing I have found in the search to match my practice with a teaching theory. Whatever name or label one places on what I do, it is a highly relational approach where significant interactions between the teacher and the student are "processed" or interpreted. It is a way of teaching that focuses on looking for opportunities to teach social thinking skills in the context of a real relationship. It is a cognitive approach that teaches students skills to compensate for their social cognitive deficit, delivered in a way that explains the "pragmatics" or the everyday context. Every conflict, problem, joy, fear, hope and positive moment provides the context for teaching and learning. The aim is to develop a student's metacognition skills. Which as you know, is a deficit in Autism.

However you dress it up, the way I work is all about building and testing interpretations in real life contexts. It's what Donald Schon (1983) calls Reflection-in-Action. Developing a young person's ability to reflect, is a way to help them grow. Metacognition might be a cognitive deficit in people with Autism, but it is a skill that can be taught. Individuals with high-functioning autism or Asperger's Syndrome often possess late-acquired, explicit Theory of Mind, which appears to be the result of effortful learning (Frith and Happe, 1999).

Schon's notions of Reflection-in-Action and Reflection-on-Action are central concepts in a relational approach to teaching social thinking skills to students with Autism/Asperger's Syndrome. Reflection-in-Action is sometimes described as "thinking on our feet". It involves looking to our experiences, connecting with our feelings, and attending to our theories about how the world operates. It involves building new understandings to inform our actions in the situation that is unfolding (Schon, 1983). When I am mentoring a student with Autism/Asperger's Syndrome, I allow myself to experience surprise, puzzlement, or confusion in a situation, which I find uncertain or unique. I reflect on the situation before me and on my prior understandings, which implicitly shape the way I think about the situation and inform the way I behave. I then carry out an experiment, which serves to generate both a new understanding of the situation and a change in the situation (Schon, 1983).

Testing my theories allows me to develop new responses. Because I am doing this in the context of a relationship, I do not follow a textbook. I have to think things through, for every situation is unique. That said, I do draw on prior knowledge. I use reflection-in-Action to think

through a new situation presented to me by my student, and in turn, it is my aim to teach this thinking process to my student.

I then link this process of “thinking on my feet” with Reflection-on-Action (Schon, 1983). This is done later, after the event. This is where I talk things through with the student or with a supervisor. The act of Reflecting-on-Action enables me to spend time exploring why either me or my student acted as we did, we explore what was happening in that group, that class, that encounter, etc. In doing this we develop sets of questions and ideas about our thinking and our behaviour.

The notion of developing a social thinking “repertoire” is a key aspect of this approach (Schon, 1983). I am conscious of building up a collection of images, ideas, examples and actions that I can draw on and I attempt to encourage my students to develop their own social thinking repertoire, experiences they can draw on to help them work through a new encounter. Donald Schon saw the notion of repertoire as central to reflective thought. The personal stories reproduced throughout this paper are examples of repertoire, lessons drawn from reflecting upon past experiences with a range of different students.

When I make sense of a situation I perceive to be unique, I make inferences from my repertoire. The familiar situation in my repertoire functions as a precedent, or a metaphor for the unfamiliar one (Schon 1983). I teach my student to use their repertoire as a frame of reference to think about a new problem or encounter, in what way is this new situation similar or different from something you have encountered before? I teach them to draw on the past to learn about the present. In doing this I am valuing their own experience and teaching them to be self-reflective. As demonstrated by Frith and Happe (1999), the ability to understand another perspective is strongly related to the ability to engage in introspection.

This is how I teach people with Autism/Asperger’s Syndrome to engage with new situations. We do not have a full understanding of things before we act, but, hopefully we can avoid major problems while “testing the water”. I use the notion of repertoire or past positive experience as a frame of reference to manage anxiety, develop competence and take action. I help my student to draw on certain routines and experiences to build theories and responses that fit a new situation.

The ability to draw upon a repertoire of metaphors and images and past experiences that allow for different ways of framing a situation, is clearly important to teaching social thinking skills. Thinking like this, Reflection-in-Action, Reflection-on-Action and the use of Repertoire, taught in the context of a relationship, is what I call the art of mentoring.

8. Conclusions

The best teaching practices for students with Autism/Asperger’s Syndrome in the USA are using cognitive behavioural techniques steeped in an understanding of typical child development and applied within a context that takes into account the individual strengths and weaknesses of the specific student with a social learning disability (Winner, 2000; Prizant et al, 2006). There are many cognitive behavioural treatments, which strategies we use and in what combination, is highly dependent on the profile of the student and family, taking into account their unique needs in their current educational context (Winner, 2008).

In Australia there is a real need to revise **what** we teach to children at the higher functioning end of the Autism Spectrum and **how** we teach them. We need to give greater respect to their ability to learn cognitively, while at the same time understanding that their learning about social cognition may be slower - we need to be patient. And we need to understand that even though they develop more skills as they age, compared to their neurotypical peers, the gap widens in adolescence, just when funding for support drops off. An Autism spectrum disorder is for life and we as a community need to provide services that people with this disability can dip in and out of when they need support. This will usually happen at during transitions or crisis points where people with Autism/Asperger's Syndrome will need more support to navigate such points in their lives.

The reality for this population is that without pragmatic competence, there can be no social competence, the two go hand-in-hand (Garris, 2007). In his review of social and pragmatic deficits in autism, Baron-Cohen (1988) noted that, "no cases of speaking autistic children with normal pragmatic competence have ever been reported" (p. 379; cited in Garris, 2007).

It is clear that we need to teach this population how to communicate in the context of a relationship conducted in the context of everyday life. The people best suited to doing this are parents/carers, teacher's aids and other "mentors". In the USA and UK I learnt that mentoring was more than forming a relationship with someone and letting your competence "rub off". It doesn't work that way with Autism/Asperger's Syndrome. Despite the myths associated with mainstream inclusion, putting them in a class of neurotypical peers does not somehow make them neurotypical, it just highlights their deficits.

It is important for Australia to develop programs for this population that effectively increase independence and support community engagement in all its forms, over the long-term. If people with Autism/Asperger's Syndrome are to be respected and provided with opportunities to engage with the community and live lives that are fulfilling, aspirational and productive, Australia needs to develop a new approach that is informed by current research on the challenges faced by this population and adopt strategies that are currently being trialled in the USA to assist this population to develop greater levels of independence. Not to do this is to accept an increasing financial burden on the community from the growing number of people being diagnosed with this disability and to miss out on the contribution of some very capable individuals.

To disseminate this information I have accepted various speaking engagements. I am guest speaker at the Autism Asperger ACT Annual General Meeting. I am speaking at the Charity Dinner to raise money to establish an Autism Centre of Excellence in the ACT. I have also submitted a proposal to speak at the Practice Talking Conference 2009, which focuses on learning from the experiences of frontline staff working with children, young people, families and communities in the ACT and region.

I have recently been appointed to the ACT Children and Youth Services Council. In applying for a position on this ministerial advisory group I indicated my willingness

to provide insight and advocacy for children and young people with Autism/Asperger's Syndrome.

I will also present the findings of my Fellowship to the ACT Department of Education and to parents of the students with whom I work. I am also available to speak to other interested groups and will look for such opportunities.

9. Recommendations

To improve outcomes for children and young people with Autism/Asperger's Syndrome I would like to make the following recommendations:

1. Establish a Mentor Training program for front-line support personnel such as parents/carers, teacher's aids and other mentors. The program will cover teaching social thinking skills in the context of a relationship. Such a program will be a cost effective way to influence outcomes for children and young people with Autism/Asperger's Syndrome and adapts the US model to suit the Australian context.
2. Establish partnerships with institutions such as universities to provide suitable "mentors" who might participate in the Mentor Training program and then perform services as mentors with children and young people with Autism/Asperger's Syndrome. Faculties such as psychology and social work could provide suitable mentors who would benefit from the training and front-line mentoring and gain valuable experience for their future careers.
3. Establish a social thinking "clinic" to provide training in social thinking skills to children, young people and adults with Autism/Asperger's Syndrome. This clinic would also provide post diagnosis assessment services to families using Michelle Garcia Winner's Dynamic social Thinking Assessment Protocol. The clinic would become a centre of excellence for working with this population and form a platform for possible replication around the country.
4. Arrange workshops in Australia to be conducted by Michelle Garcia Winner in July/August 2010, to increase awareness of cognitive approaches to treatment being pioneered in the USA.

It is neither good nor bad, but thinking makes it so. William Shakespeare

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