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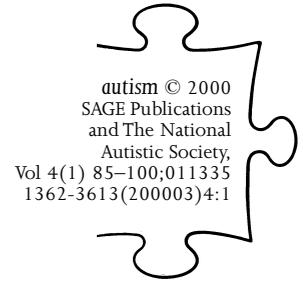
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# Strategies for improving the social integration of children with Asperger syndrome



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**ABSTRACT** There is general agreement that children with Asperger syndrome have difficulties in social integration with their peers. Our current understanding of the nature of these difficulties is explained and specific strategies are described that are designed to encourage greater competence in the skills that are necessary to achieve effective social integration. While we do not have any clear scientific evidence of whether and how these strategies are successful, they provide a source of ideas for future examination by academic research and provisional remedial programmes for practitioners.

**KEYWORDS**  
*Asperger  
syndrome;  
social  
integration;  
theory of mind*

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We currently have general agreement that, to use Hans Asperger's original words, 'This disturbance results in severe and characteristic difficulties of social integration' (1991, p. 37). But what exactly are the characteristic difficulties? We have some tentative knowledge of the difficulties from the diagnostic criteria, research studies, clinical observations and current theoretical models of autism and Asperger syndrome, but the subsequent question is, how do we improve the social integration of such children? The primary aim of this paper is to describe provisional strategies to encourage social integration.

## **Characteristic difficulties in social integration**

The current diagnostic criteria define the characteristic difficulties of social integration as especially conspicuous when the child is interacting with their peers. There is an inability or lack of desire to interact with their peers or a failure to develop peer relationships appropriate to the child's developmental level. When the child is engaged in social interaction, one is aware of several conspicuous characteristics, such as a lack of reciprocity, little appreciation of social cues and failure to share enjoyment, interests or

achievements with other people. Other characteristics include a failure adequately to use eye gaze, facial expressions, body posture and gesture to regulate the social interaction. There can also be socially and emotionally inappropriate behaviour and a difficulty in reading emotion from the facial expression of the child. (American Psychiatric Association, 1994; Gillberg and Gillberg, 1989; Szatmari et al., 1989; World Health Organization, 1993).

As we have only recently defined the characteristics of the syndrome, there are very few research studies that have included an analysis of the difficulties of social integration of subjects with a clear diagnosis of Asperger syndrome. Prior et al. (1998) conducted a study that suggests that in comparison to children with typical autism, children with Asperger syndrome can actively look for friendship but in a clumsy and not very successful way. As one of the central diagnostic criteria is a failure to develop peer relationships appropriate to the child's developmental level, clinicians examine how the child conceptualizes and demonstrates friendship skills. Normal children's conception of friendship changes over time and it is noticeable that children with Asperger syndrome often have an immature or unusual definition of friendship (Botroff et al., 1995). Their definition may include an opinion on what a friend should not do but the child has little idea of what a friend should do.

While there is a lack of research studies in this area, additional knowledge may be obtained by accepting the theory of a continuum or spectrum of autistic disorders (Wing, 1988) and incorporating research studies using children with autism who have been described as high functioning. While it is not the purpose of this paper to discuss the potential differentiation between Asperger syndrome and high-functioning autism, it is important to consider similarities as well as differences between these two groups, especially as research and clinical experience confirm an overlap of symptoms in the area of social interaction (Ehlers et al., 1997). The research on subjects with high-functioning autism suggests they are less competent than normal controls in the understanding and expression of complex emotions (Capps et al., 1992; MacDonald et al., 1989). Clinical experience of children with Asperger syndrome suggests a similar difficulty, especially in the area of the facial expressions, with a tendency for partial expression, such as only moving their eyebrows to indicate the nominated emotion, odd expressions and taking considerable time and apparent intellectual effort with this task.

Further information on the characteristic difficulties in social integration can be obtained from consideration of one of the theoretical models used to explain the nature of autism and Asperger syndrome, and the associated research literature. One of the most significant advances in

our understanding of autism and Asperger syndrome has been due to the research of Uta Frith, Simon Baron-Cohen and Francesca Happé which supports the hypothesis that children with autism and Asperger syndrome have an impairment in the fundamental ability to 'mind read' (Baron-Cohen, 1995). From the age of around 4 years, children understand that other people have thoughts, knowledge, beliefs and desires that influence and explain their behaviour. In contrast, children with autism and Asperger syndrome have considerable difficulty conceptualizing and appreciating the thoughts and feelings of another person. In other words, they lack the ability to think about thoughts. This has a major impact on the child's social reasoning skills and behaviour, for example, in distinguishing whether someone's actions are intentional or accidental, or how their actions or comments affect the thoughts of others. Finally, we know that attention deficit hyperactivity disorder is sometimes comorbid with Asperger syndrome (Ehlers and Gillberg, 1993; Eisenmajer et al., 1996). Pierce et al. (1997) examined whether attentional deficits were related to impairments in the social functioning of non-retarded autistic children. These children had not been diagnosed as having Asperger syndrome but the results of the study may be applicable to this population. They investigated the effects of the number of social cues on the ability to interpret social situations. The presence of additional cues assisted the control subjects' interpretation of social behaviour, while for those subjects with autism the additional cues impeded their performance. They also noted that the subjects with autism often attended to irrelevant stimuli such as the presence of a chair or the movements of the person's legs and considered these cues as relevant to social interpretation. Thus, when designing specific strategies to achieve social integration, one must consider the potential aspects of an attention deficit and whether, as with autism, the more cues there are available, the more confused the person may be, and one must ensure they are attending to the relevant cues.

### **Specific strategies to encourage social integration**

Now that we have started to define and study the characteristic difficulties of social integration, we also need to develop strategies to encourage greater competence in the skills that are necessary to achieve improved social integration, especially with the child's peers. Unfortunately this area lacks independent evaluation studies to determine whether and how specific strategies are successful. Nevertheless, the following strategies are some useful starting points for practitioners and academics and are offered for their heuristic value rather than as definitive strategies.

### **Opportunities to interact with normal children**

The first strategy is to ensure the child has opportunities to observe and interact with ordinary children at their school. This is to ensure that their peer group not only demonstrates appropriate social/emotional behaviour but is also sufficiently socially skilled to know how to modify its social behaviour in order to accommodate and support the child with Asperger syndrome. Some children with Asperger syndrome attend schools for emotionally disturbed children; such circumstances may not provide an appropriate peer group.

### **Knowledge of the nature of Asperger syndrome**

The mother of a young boy who had recently been diagnosed as having Asperger syndrome was asked by another mother if having the diagnosis had changed the child. Her reply was no, but that she had certainly changed, in both her attitude and her level of understanding. This had a significant positive effect on her management strategies and ability to explain the child's behaviour to others and thereby facilitate his social integration. As children with Asperger syndrome have no distinct physical characteristics to indicate their disorder and their intellectual and physical abilities are perceived as within the normal range, other people may not be able to conceptualize the genuine difficulties the child has with the social/emotional aspects of life. Their errors in the skills necessary for social integration can be misinterpreted as having deliberate malevolent intent. We now have written material for parents and professionals that explains the nature of Asperger syndrome (Attwood, 1998; Howlin, 1998; Myles and Simpson, 1998), practical guides for teachers (Cumine et al., 1998; Thomas et al., 1998), and material to explain this disorder to other children. For example, Carol Gray (1993) has written a programme for school children called the *Sixth Sense*, i.e. the social sense. A series of activities highlights each sense and demonstrates how the sixth sense works. They are then encouraged to imagine what it must be like to have an impaired social sense and to not fully understand the perceptual, cognitive and emotional perspective of others. For example, they are asked – would it be easy or difficult to take turns if you did not know what the other person is thinking or how they feel? Would it be easy or difficult to make friends? Finally, the children are encouraged to identify how they might assist their classmate with Asperger syndrome. There is also material to explain this disorder to the child themselves (Gray, 1996a; Ives, 1999).

### **Teaching theory of mind skills**

One of the cognitive skills that is impaired in children with Asperger syndrome is that of advanced theory of mind. A range of techniques has now

been developed using photographs, drawings, text, and individual and group tuition to teach specific mental-state concepts to children with autism with a language age of at least 5 years; these techniques are applicable to young children with Asperger syndrome. Howlin et al. (1999) identified several levels of mental-state teaching, the first being the identification of the basic emotions of happiness, sadness, anger and fear from photographs of facial expressions. The next level is the identification of the same emotions from schematic drawings. The next level is predicting the emotional expression of a person in a situation portrayed by text and drawings, then identifying emotions according to whether a person's desire is fulfilled or unfulfilled. The programme also includes activities to encourage the ability to understand what another person perceives, knows and believes, and to predict their response on the basis of that knowledge. The design of the teaching material is quite ingenious and the authors found that the children were able to understand basic emotions and informational states after a relatively brief training period and that their improvements in theory of mind skills were maintained. However, there was little generalization to other aspects of theory of mind.

Other studies have examined complementary strategies to teach theory of mind skills. Swettenham et al. (1996) successfully taught theory of mind skills by encouraging their subjects with autism to conceive of the mind as a camera. A similar strategy was used by McGregor et al. (1998) who employed a teaching method that used a picture actually placed inside a doll's head as a tangible image of the doll's knowledge and subsequent thoughts. They also used the strategy of children watching videos using natural situations and actors to illustrate false belief events. Their results indicated that there may be subgroups who have different areas of difficulty and that specific teaching components, such as a narration to accompany the video of actors, can be an important aspect in completing the task. Another technique is using drawings and thought bubbles (Parsons and Mitchell, 1999). Yet another approach is to adapt a social skills training programme to include systematic instruction in theory of mind principles. Ozonoff and Miller (1995) used a social skills group approach to teach perspective taking, employing a range of techniques such as having a person blindfolded to illustrate a person's visual perspective, and how one person can know something that another does not. They also used role plays to illustrate how perception influences knowledge, and provided coaching in reading, interpreting and expressing non-verbal signals. The results of the study confirmed a significant improvement in their subjects' performance on several false belief tasks, to age-appropriate levels for some subjects, but did not indicate any evidence of a general improvement in social competence.

### Social stories

A strategy that is increasing in popularity in schools is the use of social stories (Gray, 1998). They originated from working directly and collaboratively with children with autism and Asperger syndrome rather than from intellectual consideration and subsequent application of specific academic theories. However, when one examines the current theories explaining why such children are different, one can recognize how the strategies are consistent with these models. A social story is written with the intention of providing information and tuition on what people in a given situation are doing, thinking or feeling, the sequence of events, the identification of significant social cues and their meaning, and the script of what to do or say; in other words, the what, when, who and why aspects of social situations. The process of constructing a social story involves identifying an occasion where the child is confused or has difficulty understanding what they are supposed to do in a social context. The next stage is to establish information from the perspective of all relevant participants, especially the perspective of the child, and details of the circumstances and relevant cues. A story is then written and designed according to specific guidelines, in particular the inclusion of four types of sentences. *Descriptive sentences* describe where a situation occurs, who is involved, what is happening and the relevant cues. *Perspective sentences* describe a person's thoughts and feelings in the specified situation and describe the consequences of actions and comments on the thoughts of others. They refer to what someone knows, believes or feels. Thus they provide information that is crucially important in understanding the perspective of others. *Directive sentences* define what is expected as a response to the cues or circumstances described in the story. They relate directly to the child's anticipated behaviour. *Control sentences* are created by the child to identify strategies to clarify what is happening and what to do. They can include metaphors based on their special interest, for example a child who was interested in insects was confused and annoyed when other people changed their mind. The following metaphor was used in a social story: 'When someone says "I changed my mind", I can think of an idea becoming better. Like a caterpillar changing into a butterfly.'

There is a *social story ratio* that defines the proportion of descriptive, perspective, directive and control sentences in the story. The intention is to inform and describe more than to direct. The stories are also written within the reading and comprehension level of the child, with appropriate illustrations. They can also be developed to become exercises on specific theory of mind skills, for example, the child completes the following sentences:

I often talk about trains. I often think about . . . .

I often talk about bus schedules. I often think about . . . .

Matt often talks about dinosaurs. I guess Matt often thinks about . . . .  
 Matt may like it if I ask him about . . . .

If a child with Asperger syndrome does not conceptualize the thoughts of others, they will be considered as rude, inconsiderate or acting without conscience. Such children can appear to belong to a different social culture. Social stories provide a 'visitor's guide' to our social culture by explaining social conventions, their rationale and what is expected for those exploring 'unfamiliar territory'. Social stories decipher the code by identifying the relevant cues and their meaning, correcting false assumptions, and enabling the child to recognize the overall pattern or Gestalt within and between social situations. It is quite understandable that social stories are becoming a popular technique with teachers and parents. However, they have yet to be examined by empirical studies to confirm their efficacy and clearly establish what changes in understanding and behaviour can be substantiated as a result of experience with this technique.

### **Comic strip conversations**

Comic strip conversations were also developed by Carol Gray (1996b) and designed as a means of visually illustrating the different levels of communication that occur in a conversation. The technique is relatively simple and involves drawing stick figures with speech and thought bubbles and designated colours to represent emotions. The intention is to illustrate a conversation by using brief and simple drawings to identify what each person said, thought, felt and did in a specified situation. The idea is for the participants to draw as they talk. A choice of colours is used to assist with the identification of thoughts or feelings. The child creates their own colour chart with their personal association between thoughts, feelings and colour. For example, when the child chooses a green crayon to write the words or thoughts of another person in the speech or thought bubble, this indicates they considered the intention was friendly, while red may be their choice for indicating anger. A series of drawings using a storyboard approach illustrates the changing thoughts and perspective of others, and can illustrate alternative responses and outcomes. This technique is particularly useful for clinicians when analysing the child's motives when a specific incident has caused considerable distress, as well as illustrating alternative responses that the child could make. As with social stories, this technique has not been examined by independent empirical research, but it is an activity that is likely to become increasingly popular with teachers and clinical psychologists.

### **Encouraging friendship skills**

The traditional school curriculum pays limited attention to the development of friendship skills, yet these skills are the foundation of abilities that

are highly valued by ordinary adults in their professional and personal lives, namely having teamwork skills, being able to manage conflict, and having successful personal relationships. A recent study examined the perceived quality of life of adults with high-functioning autism and Asperger syndrome and only one variable, 'hours spent with friends', was able to significantly predict the scores on any of the quality of life measures (Craig, 1998). These adults valued and desired friendships more than anything in their lives, yet few had the ability to maintain acquaintances, let alone friends. As children, we were never directly tutored in friendship skills, so how do we start teaching someone who appears to lack the intuitive ability we take for granted?

The starting point is an assessment of the friendship skills the child demonstrates and the skills that are conspicuously absent. We have standardized tests to measure cognitive, linguistic and movement skills but at present we do not have standardized assessment instruments for friendship skills that can be applied to children with Asperger syndrome. However, a review of the research literature on the range of social behaviours used as an index of friendship skills with ordinary children can produce a primitive checklist of friendship skills for children with Asperger syndrome. This is provided in Table 1.

**Table 1 Social behaviours used as an index of friendship skills**

Entry skills	How the child joins a group of children and the 'welcome' they provide for children who want to be included in their activity
Assistance	Recognizing when and how to provide assistance as well as seeking assistance from others
Compliments	Providing compliments at appropriate times and knowing how to respond to a friend's compliment
Criticism	Knowing when criticism is appropriate and inappropriate, how it is given and the ability to tolerate criticism
Accepting suggestions	Incorporating the ideas of others in the activity
Reciprocity and sharing	An equitable distribution of conversation, direction and resources
Conflict resolution	Managing disagreement with compromise, and accepting the opinions and point of view of others. Knowing not to respond with aggression or immature mechanisms
Monitoring and listening	Regularly observing the other person to monitor their contribution to the activity and body language; their own body language indicating interest in the other person
Empathy	Recognizing when appropriate comments and actions are required in response to the other person's circumstances and feelings

Once the child has been assessed using the checklist described in Table 1, the next stage is to use behavioural and cognitive strategies to maintain and improve specific behaviours. If the skills outlined in Table 1 occur, then it is essential that such behaviour is recognized and rewarded. The praise should be directed at both the child with Asperger syndrome and the other child, as the other child may need encouragement to maintain their friendship, especially as such children are often not among the most popular children in the class or neighbourhood. It is also essential that the child's social play is monitored by an adult to identify when the child has not recognized the cues for specific behaviours, or is unsure how to respond. The child's attention is drawn to a specific cue and verbal prompts and instruction are given as to what to do. This is an application of the traditional behavioural techniques of task analysis, prompting and reward.

Children with Asperger syndrome are unusual in that they can be taught what to do in a given situation, but one cannot assume they understand why the action or comment is appropriate. They need to learn the theory as well as the practice. Social stories can be used to assist the child to acquire the necessary cognitive mechanisms. The following is an example of a social story for a grade 1 child who needs to learn about the concept of assistance in friendship. It is designed to understand what 'help' is and to identify when and how to respond if another person needs assistance.

*How I can help children in my classroom*

My name is Juanita. Sometimes, children help me. Being helpful is a friendly thing to do. Many children like to be helped. I can learn to help other children.

Sometimes, children will ask for help. Someone may ask, 'Do you know what day it is today?' or 'Which page are we on?' or maybe something else. Answering that question is helpful. If I know the answer, I can answer their question. If I do not know the answer, I may try to help that child find the answer.

Sometimes, a child will move and look all around, either under their desk, in their desk, around their desk. They may be looking for something. I may help. I may say, 'Can I help you find something?'

There are other ways I can help. This is my list of ways I can help other children:

...

Other techniques can be used to encourage friendship skills. For younger children, a friendship diary can be used to record occasions when the child demonstrated friendship abilities and other children were particu-

larly friendly towards the child. When one examines the concept of friendship, it is interesting that one of the criteria ordinary children use for defining what makes a good friend is someone who has similar interests. However, the special interests of the child with Asperger syndrome may not be interesting or popular with their peers. One option is to identify other children who have the same interest and introduce the two children to each other. An example was a child with Asperger syndrome who had a special interest in ants, a solitary pursuit for him as none of his acquaintances at school shared his enthusiasm and knowledge of this topic. However, by chance, another local child with Asperger syndrome was also interested in ants. When they were introduced, a genuine friendship occurred with joint expeditions to observe and collect ants and the sharing of information and resources on these insects. Observation of the children indicated that while each child's friendship skills with other children appeared hesitant and contrived, when the two met, their friendship skills were more fluent and spontaneous. This technique can be facilitated by local parent support groups having a registry of children and their interests, penpal registries, special interest clubs and Internet chat lines. Another strategy is the development of local support groups run by and for adolescents and young adults with Asperger syndrome. These groups hold regular meetings and excursions to destinations that may not be valued by their ordinary peers, such as museums and transport facilities. Support groups provide a social life outside school, and the opportunity to meet someone who shares the same experiences and values, the basis of many friendships for adults.

### **Social skills groups**

There has been some success reported in the research literature for social skills groups for children, adolescents and young adults with autism and Asperger syndrome (Andron and Weber, 1998; Marriage et al., 1995; Mesibov, 1984; Ozonoff and Miller, 1995; Williams, 1989). This strategy provides group tuition on why certain skills are important, and practice in applying those skills using modelling, role play, video recordings and constructive feedback. The courses have focused on conversation skills, reading and interpreting body language, understanding the perspective of others, and friendship skills. A variation on this approach, focusing on the development of emotional intelligence, has been introduced by Linda Andron and Elizabeth Weber (1998) who have conducted social skills groups using family members, especially siblings, as participants. Their curriculum emphasizes the development of appropriate affect in social situations. At present it is extremely difficult to determine whether social skills groups are an effective means of improving the social integration skills of children

with Asperger syndrome. Outcome measures have primarily been qualitative and we do not know if this technique can change specific skills in natural settings. Nevertheless, experience has shown that the groups are perceived as valuable by parents, teachers and participants. In particular, the participants have appreciated the opportunity to meet people similar to themselves who share the same confusion and experiences, and this can be the basis of subsequent friendships and self-help groups.

### **Project on specific emotions**

We have only just begun to develop strategies to teach a child with Asperger syndrome how to read the non-verbal signals and contextual cues that indicate the feelings state of another person, and how to express their feelings in precise and subtle ways. Previous reference has been made to the programme by Howlin et al. (1999) that enables the child to identify the feelings of others using pictures and text. There are other, complementary strategies. One strategy is to have a project to explore a specific emotion. A useful starting point is the emotion of happiness or, for teenagers and adults, pleasure. The person creates a special book, titled the 'happiness' or 'pleasures' book. They include in the book their personal examples that illustrate or elicit feelings of happiness. For young children this can be pictures of happy faces cut out from magazines and other pictures the child associates with feelings of happiness. These can be idiosyncratic, such as a drawing of the cross-section of the liner Titanic for a child who experiences considerable pleasure from reading about this vessel. It can also take the form of a diary that involves writing down the compliments they have received and descriptions of happy times. This book helps the child explore the circumstances they associate with happiness. If this project is undertaken with other children, they can compare and contrast different perceptions and responses.

The next stage is to learn how the facial elements combine to express happiness. An activity is devised where the child has a choice of different eyebrow and mouth shapes, and chooses the combination that expresses the feeling of happiness. This can be achieved using pictures of faces that have been cut into segments, and new computer programs have been specifically designed to teach children with Asperger syndrome which are the key facial elements and how the shape and patterns of these elements identify different feelings ([www.ccoder.com/GainingFace](http://www.ccoder.com/GainingFace)).

It is important that the child understands that each feeling has a range of intensity of expression. One can use a metaphor of a thermometer to measure the degree of emotional intensity. A large thermometer is drawn and the child is provided with a collection of photographs that express different levels of happiness from a subtle smile to a picture of sheer delight.

The child is then asked to place each photograph at the appropriate level on the expression 'thermometer'. This procedure can also be used with the words that describe a particular intensity, for example, individual words such as pleased, delighted and cheerful are written on cards and the child determines where each card should be placed on the thermometer. The child can also be asked to indicate on the 'thermometer' how happy someone, or they themselves, would feel in a particular situation. The concept of happiness is expanded to include a wide range of expression, from vocal prosody, e.g. counting to 10 or reading a neutral passage with a voice that indicates the feeling of happiness, to illustrating the particular emotion with appropriate music and art activities. Speech and drama games can also be used to illustrate the appropriate body language. For example, the child has to mime a particular activity, e.g. opening and silently reading a letter, and indicating the person's happy state of mind. Additional props can be a mirror to practise expressions and video recordings of role play games to provide personal feedback. Individual differences in the perception of a particular feeling can be illustrated by sentence completion activities, such as 'What could you say that would make . . . feel . . ., and how . . . would they feel?' The child with Asperger syndrome can then start to appreciate that circumstances and comments that elicit a particular feeling in themselves will not necessarily have the same effect on others. Talking about trains may make the child feel happy but it may not be a successful strategy to improve the mood of their teacher.

This 'package' of strategies can then be applied to other emotions, ranging from sadness, affection and anger to quite complex emotions such as embarrassment and jealousy. There is also a range of reading material designed to encourage the understanding of specific feelings in ordinary children that can be used with children with Asperger syndrome (Attwood, 1998). However, as with many other strategies, this strategy has yet to be examined and evaluated by independent research.

### **Imitation**

Some individuals with Asperger syndrome can be quite ingenious in using imitation and modelling to camouflage their difficulties with social integration. For example, in her autobiography, Liane Holliday-Willey describes her technique:

I could take part in the world as an observer. I was an avid observer. I was enthralled with the nuances of people's actions. In fact, I often found it desirable to become the other person. Not that I consciously set out to do that, rather it came as something I simply did. As if I had no choice in the matter. My mother tells me I was very good at capturing the essence and persona of people. (1999, p. 22)

Conventional speech and drama lessons can be used to encourage the child how to act in social situations. The child observes someone who is competent in social integration skills in natural settings, and watches videotaped examples, taking note of what they do and say. They then rehearse the social script, taking on the persona of someone they know to be successful in social integration.

### **Accommodate the child's cognitive skills**

Preliminary experiences of teaching social integration skills suggest that one must accommodate the child's profile of cognitive skills. A formal assessment of intellectual ability using standardized tests can establish whether the child has a significant discrepancy between their verbal and performance intelligence (Ehlers et al., 1997). One can then determine how the training material can be modified for children with conspicuous verbal skills, for example using social stories and discussion, or with conspicuous visual reasoning skills, emphasizing comic strip conversations and role play activities. Thus knowing whether a child is a 'verbalizer' or a 'visualizer' can be an important factor in the design of the remedial programmes. It is also important to recognize the time taken for the child with Asperger syndrome to process social information, and to modify the pace and presentation of activities according to their capacity to process social information.

### **Conclusion**

Difficulties in social integration are a fundamental component of Asperger syndrome, yet we have only just begun to describe the nature of the characteristic difficulties, let alone develop remedial programmes to encourage greater competence in this area. While this paper has outlined strategies without a body of research evidence to substantiate their effectiveness, there is an increasing demand for intervention programmes. Clearly research must occur in step with the development of these strategies, especially as they have potential application in areas other than social integration. We know that some children with Asperger syndrome lack insight into their social and emotional problems (Pomeroy, 1998) but many become acutely aware of their difficulties with social integration. Clinical experience of such children suggests that this is one of the major contributory factors for a secondary diagnosis of depression and other mood disorders. Strategies to improve social integration could be a valuable component of Cognitive Behaviour Therapy programmes. It should also be noted that the strategies are likely to be pertinent for all children at the

high-functioning end of the autistic spectrum, irrespective of whether the child has a diagnosis of Asperger syndrome.

The final point is that we must remember that some adults with Asperger syndrome never had the opportunities available to the current and future generations of children, yet they succeeded in acquiring the ability to be socially integrated to a level where other people would not easily perceive the difficulties they encounter in everyday social interactions. They have eventually learnt what others appear to have acquired with so little thought. This is illustrated by the autobiography of Liane Holliday-Willey:

Looking far over my shoulder, I can call to mind people who must have been interested in friendship. I can see a boy I knew as if it was yesterday. I can remember his face and the expressions he made as we talked. Today if he looked at me like he did then, I believe I would have seen the kindness and gentleness that was his. I never did much with this boy when I had the chance. I missed his offer of friendship. I would not miss that offer if it was made today. His face would make sense to me today. (1999, p. 50)

We need to establish what strategies they found aided or hindered their successful social integration so that we can diminish the qualitative differences that make such children so conspicuous and confused.

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