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Social play and autistic spectrum disorders

A perspective on theory, implications and educational approaches

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ABSTRACT The article considers the nature of the presumed social play deficit in autistic spectrum disorders (ASDs). The nature of play and its typical development is outlined and discussed in relation to play development in ASDs. It is suggested that social play is a confluence of two strands of development that are affected in autism: social and emotional development, and the cognitive development of play. It is shown that social play develops in a transactional way and in ASDs initial social difficulties prevent the development of social interaction, with its role in eliciting and enriching spontaneous play. At the same time, cognitive and affective difficulties prevent the play of children with autism developing to the extent of attracting other children and being of a complexity from which social play might develop. This cycle of impoverished play opportunities for children with ASDs may be broken through direct teaching and there are encouraging models of teaching social play with some success.

KEYWORDS
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Introduction

Social play has a key role in the identification and diagnosis of autistic spectrum disorders (ASDs), identified either as such or as the confluence of separately identified play and social deficits. For example, in a recent examination of attempts at early diagnosis in ASDs, Charman and Baird (2002, p. 289) include 'a lack of varied and imaginative or imitative play' and 'a failure to develop peer relationships' in their characterization of the key features of autism. The Diagnostic Interview for Social and Communication Disorders (DISCO – a new diagnostic tool) includes specific

questions on social play and imaginative play with peers (Wing et al., 2002).

This article argues that social play highlights the transactional nature of ASDs, both within the development of the disorder and between the child and the environment. It looks at current views of the role of social play in ASDs, and how these affect ideas of the nature of autism and its ontology, suggesting that lack of clarity about the nature of play has led to some misperceptions about play in children with ASDs.

The nature of play

'Play' is a fuzzy concept whose meaning is deceptively transparent but which proves difficult to define with any precision (Fein, 1981). Much confusion arises from the failure to recognize this ambiguity in its meaning and the consequent slippage in the way it is used. The range of behaviours that are said to be 'playful' are diverse and a behaviour cannot of itself be defined as 'play' without note of the context in which it occurs. Although it is viewed as vital to the normal development of children (see Jordan and Libby, 1997), there is little agreement on which aspects of play are vital or indeed on how the elements of play are to be characterized.

Garvey (1977) suggests play has the following characteristics:

- pleasurable and enjoyable
- no goal imposed from the outside
- spontaneous and voluntary
- involving some active engagement on the part of the player
- having certain systematic relations to what is not play; it can be contrasted to non-play.

The first four of these appear generally accepted characteristics of play (see Wolfberg, 1999, and Sherratt and Peter, 2002, for reviews), while the last one seems to accept its 'common-sense' definition by asserting that, even if not definable, it can be recognized by contrast to what it is not. However, this may only be true when there are shared meanings and may not be applicable to individuals with ASD. This can lead to misleading assumptions in two directions: individuals with ASDs may be characterized as not playing because they are not playing in conventionally recognized ways; and practitioners may characterize their activities as 'teaching play' when the behaviour being taught does not represent play for the individual with an ASD (cf. Donnelly and Bovee, this issue).

Roeyers and Van Berckelaer-Onnes (1994) provide a similar list to Garvey (1977) for the characteristics of play, but include three important additions from the work of Rubin et al. (1983). One is that play should

involve attention to the means over the end product of the action or activity; another is that it should be flexible and changing; and the third is that it has a non-literal orientation. To some degree, these characteristics are linked. If one is engaged with pleasure and attention on a process, it follows that the activity becomes an end in itself, so that it has a subjective meaning not necessarily captured by any literal description, and a capacity for almost infinite variation in its execution, once freed from means–end directedness.

Development of play

Vygotsky put play at the heart of development:

In play a child always behaves beyond his average age, above his daily behaviour; in play it is as though he were a head taller than himself. As in the focus of a magnifying glass, play contains all developmental tendencies in a condensed form and is itself a major source of development. (1978, p. 102)

Boucher (1999) echoes Vygotsky in suggesting that one reason why play is important is because it allows children to learn and practise new skills in safe and supportive environments. Restal and Magill-Evans (1994) examined preschoolers at play, noting that play provides a medium through which children develop skills, experiment with roles, and interact with others. Social play is particularly important in this respect because it captures so many aspects of development. Once acquired, social play incorporates intention, interrelatedness, emotional directedness and narrative ability.

Play development normally mirrors other aspects of children's development, such as their cognitive, social, linguistic and emotional development (Rubin et al., 1983; Vygotsky, 1966). Cognitive development is reflected in the move through sensory exploration of objects, simple repetitive play, relational and constructive play with objects, and purposeful problem solving with an awareness of the functional as well as the physical properties of objects. A full functional appreciation of objects includes the recognition of the active and dispositional properties of toys (such as dolls or toy cars). At the pinnacle of cognitive play is the recognition that pretend play can be divorced from these functional toy props, and become truly symbolic through the use of 'pretend' objects, attributes and functions. Although these are often spoken of as 'stages', implying that they are outgrown as the child develops, there is little evidence that that is so. Each developmental step adds to the child's repertoire, rather than replacing it, so that people will continue to play at all the cognitive 'stages' throughout their lives. Thus, observation of play skills must be careful to allow for context, opportunity and motivation in its analysis.

At the same time as play is developing cognitively, it is also developing socially and the separation of these two strands of play is only an abstraction

for academic purposes; in reality they are intertwined. Socially, play is often seen to move through steps that are social counterparts to the cognitive ones. This presupposes a process of increasing socialization during which the child starts as socially isolated in play, engaged in exploration of the self, developing a sense of agency, and learning about cause and effect in relation to the world. Later in the socialization process the child begins to notice the play of others, playing alongside and eventually becoming responsive to the overtures of others to join their play, as well as accepting their 'interference' in his/her own play routines. Such joint play routines become more complex and involve both cooperative and competitive social play until the child is able to plan and execute negotiated and fully collaborative social dramas with peers. However, as with the cognitive 'stages' of play, the kinds of play represented may remain throughout development so that adults may be as likely to engage in isolated self-stimulatory play as in collaborative games, especially in a world of computer game playing. Questions of motivation and opportunity are even more pertinent here.

There is, however, evidence that our earliest understanding of the world and our actions within it have a social rather than a cognitive base (Hobson, 2002; Vygotsky, 1978). According to this view, social play can be seen to arise from the earliest social interactions between caregiver and child, and it might be argued (as Dunn, 1991, does) that the child is tutored into engagement with the world in a playful sense through these early experiences. Play development certainly mirrors emotional development. The earliest dyadic interactions with caregivers involve mutual arousal in joint routines, with a consequent transactional development of self and other and the increasing awareness of, and pleasure from, contact with others. Through play children are enabled to explore their own (and others') emotional reactions to novel or created situations and learn to predict and control their own and others' emotional states. Play allows the repetition and enhancement of pleasurable emotional engagement with others and gives a degree of control to the child that is often absent from other non-playful aspects of caregiving and daily life. According to Sherratt (1999), symbolic pretend play in particular offers children opportunities to engage in mutually satisfying social play, which in turn can be used as a vehicle for developing vital social skills. These opportunities are created by the shared understanding of pleasure experienced in play episodes (Sherratt and Peter, 2002).

Play is also a window to the culture in which the child is embedded. Through play the child learns to encode social/cultural forms and learn what is relevant and significant to that culture. It provides a way of practising culturally important activities and preparing the child for life. Bruner and Feldman (1993) show how the basis of the narrative forms that underlie much of our cultural expression lies in early social games.

Through social play, the child builds on this early understanding to develop social narratives with others and express them in action dramas and stories. Wolfberg (1999) cites the socio-cultural theory of play, which suggests that social play leads to the construction of shared meanings, and the transformation and understanding of the skills, values and knowledge of one's culture.

Social mutually enjoyable play leads to the capacity for later friendship (Hartup and Sancilio, 1986; Parker and Gottman, 1989). Such play is the context for learning about intimacy, trust, negotiation and compromise, concepts and skills that are vital to forming and maintaining friendships. Concepts of intimacy and agency in their turn are related to growing social competence and contribute to the development of proxemics – the sense of an appropriate distance for different kinds of social engagement and the zone of comfortable distance within which one feels threatened by unexpected and non-playful intrusion. Play signals allow this zone to be invaded without distress and so can help enlarge the zone itself and/or the range of people admitted (as intimates) within that zone. Thus failure to recognize or use play signals may be an important inhibitor of social engagement.

- In sum, play is a vital part of development for any child, and social play in particular is crucial to cognitive, social, and cultural competence (Arthur et al., 1999).

Social play development in autistic spectrum disorders

There is considerable clinical and research evidence that children with ASD show delay, difficulty and deviance in their development of social play (Beyer and Gammeltoft, 2000; Howlin, 1986; Lord, 1984; Lord and Magill, 1989; Wolfberg, 1999). White (2002) identifies three critical dimensions to social play that may be affected in autism:

- social processes: shared attention and understanding, emotional regulation and underlying social competence
- complexity of cognitive play: fostering longer and more complex interactions
- social status: evaluation of and by others.

Key to understanding social play development in autism are the questions posed by Wolfberg (1999). She asks whether the social gains that can be found in children with ASDs, following successful integrated peer play (see below), precede, parallel or follow the gains that can equally be found in functional and symbolic play. In other words, does the child need to learn to play in order to socialize, or to socialize in order to play?

There are noted difficulties with the development of pretend play in autism. However, children with ASDs do seem able to engage in pretend play if it is highly structured or elicited in some way (Charman and Baron-Cohen, 1997; Jarrold et al., 1996; Lewis and Boucher, 1988; Libby et al., 1998; Mundy et al., 1986; Sherratt, 2002; see also Jarrold, this issue). Social contact with peers is a highly eliciting situation and it may be the absence of this elicitation that is at the heart of presumed deficits in pretend play. Stahmer (1999), for example, suggests that the lack of spontaneous play in free settings may arise from frustration and lack of motivation, owing to repeated experiences of failure in attempting to engage in social play. Williams et al. (2001) found that in contrast to matched controls (children with Down's syndrome and typically developing children), the play of children with autism was less likely to engage the interest of others. This is not surprising, because play in children with ASDs frequently has a quality of passivity, like a learnt routine rather than a genuinely playful and engaging experience. Atlas (1990) notes that when pretend play is present in autism it is stereotyped and rigid, but that is a feature of all behaviour in children with ASDs, rather than a peculiarity of play, and may be a result of executive functioning deficits (Dawson et al., 2002). Once there is structure, much of this rigidity in play disappears as it does with other behaviour patterns (Lewis and Boucher, 1988; Whyte and Owens, 1989).

Taking all the evidence into account, it has been suggested (Jordan, 1999) that symbolic play itself may not be disturbed in ASDs, once general cognitive difficulties have been accounted for, but rather it is the social aspects of pretend play (both functional and symbolic) that are affected. It is joint play with others that makes play varied and flexible, thus helping to explain the narrow repetitive forms of pretend play that occur in autism (Wolfberg, 1999). As Boucher (1999) noted, play is the currency of childhood and so it is likely that failure to engage in pretend play with others is in turn a prime cause of social isolation and a consequent failure to develop and practise social skills. Thus, the two strands appear to act in a transactional way in development, each leading to further developmental problems in the other.

The problems in the social aspects of play in autism can be traced to the earliest forms of social interaction between caregivers and children with ASDs. Problems of joint attention in autism are well known, although the extent to which they are key, or depend themselves on failures in attentional cueing, is disputed (Leekam et al., 1998). Kasari et al. (1990) found that children with autism typically showed neutral affect accompanying joint attention, whereas controls (typically developing and those with a developmental delay) showed positive affect. This points to a failure of positive engagement in the earliest forms of social contact, which in turn would

mean that such interactions are not likely to lead to social play for the child with an ASD. In their study of play of preschool children, cited above, Restal and Magill-Evans (1993) found children with autism to be disadvantaged in their ability to use play as a means of developing skills, experimenting with roles, and interacting with others.

In sum, playing is the norm in early childhood and a lack of play skills makes it harder for a child with an ASD to gain the social, emotional and cultural experiences needed for normal development (Jordan and Libby, 1997). Simpson and Miles (1993) suggest that failure to develop normal play and social skills results in children with ASDs remaining socially marginalized. Boucher (1999) also makes this point. However, she notes that improving the play skills of children with ASDs, whether for social or non-social play, gives them a sense of mastery, and increases their pleasure and motivation to play, and that these are justifiable aims in themselves.

Wolfberg (1999) raises the issue of the adult role in facilitating play development, and asks what characteristics make effective play partners for children with ASDs. Watson (1998) studied mother-child dyads in free play situations and found that mothers of children with autism directed verbalizations just as often to their child's focus of attention as mothers of typically developing children, but they more often verbalized about something that was not within their child's focus of attention. It seemed that mothers of children with autism were alert to their child's focus of attention some of the time, but at other times were finding it difficult to track, resulting in more (and more haphazard) referential comments. El-Ghoroury and Romanczyk (1999) also studied dyads involving children with autism in free play situations. They compared the behaviour of both partners in the dyad when the play partner of the child with autism was a sibling, a mother or a father. They found that parents directed more play at the child with autism than did siblings, but the children with autism were more responsive to the play overtures of their siblings. Beiberich and Morgan (1998) studied children (aged 5 to 12 years) with autism in free-play dyads and found that they showed less emotion and spontaneity in their play dyads than did comparable children with Down's syndrome. All this is consistent with parents anxiously trying to elicit play, with the less intrusive overtures of the siblings being more successful. There are forms of play, however, with which both parents and children with autism appear comfortable: chasing and 'rough and tumble' play. Children with autism engaged in such play forms with others have been found to display social skills that are not seen at other times.

It has been suggested that a failure in imitation is central to play and other deficits in autism (Rogers and Pennington, 1991). Brown and Whiten (2000) cite evidence showing that imitation is important in establishing

primary intersubjectivity between caregivers and infants and is vital in the development of social play and peer relationships. A review of imitation in autism indicated that most but not all studies (including parental reports: Lord, 1993) show an early lack of imitation and later problems in imitation on demand. Imitation by others, however, is effective in establishing social contact in autism (Dawson and Galpert, 1990; Nadel et al., 1999). Brown and Whiten (2000) included both play and social behaviour in their naturalistic study of 12 children and 12 adults with autism (children aged 7 to 15, MA 2 to 8 years), designed to test the imitation theory of autism. They compared children with autism, adults with autism, a learning disabled group and two groups of typically developing children: 3- to 4-year-olds and 5- to 6-year-olds. Results are hard to interpret as regards a test of imitative ability, but the two groups with autism showed less social contact, more manipulation of objects, less symbolic play, and less evidence of understanding mental states.

In another study trying to trace causal links, Sigman and Ruskin (1999) looked at continuity and change in diagnosis, intelligence and language skills in children with Down's syndrome, autism and other developmental disorders. They found that early non-verbal communication and play skills (at preschool level) predicted the number of initiations of peer play for children with Down's syndrome and peer engagement for children with autism in their middle years. This supports the view that children continue with, and improve upon, early skill patterns. There are other studies showing different relationships between various cognitive and social abilities and play behaviour in ASDs, but it is hard to resolve the 'chicken and egg' question when looking for causal connections within these relationships.

Teaching social play

There have been some very encouraging attempts to teach social play (or to teach other play in a social context) and three important strands of this work are represented in this issue: Wieder and Greenspan on adult-child relationship play, Yang et al. on peer play and Schuler on the relationship between communication, language and play. Strain and Schwartz (2001) show that social play is crucially dependent on the context and (like other social behaviour) cannot be successfully taught as a set of discrete skills.

The importance of the social element has been emphasized also in the teaching of advanced cognitive play skills. Sherratt (2002), in a successful action research study to teach symbolic play to children with ASDs, states that the play should be social: learning new skills from a more able player, gaining a desired object from someone else or sharing a sense of enjoyment

from the actions of others. Differences on these domains (lack of everyday contexts, social encouragement and participation) may also explain the poorer results from the programmes of Hadwin et al. (1996) and Van Berckelaer-Onnes (1994). Better results are found when there is real play with others (e.g. Beyer and Gammeltoft, 2000; Wolfberg, 1999).

Parent training has been used with some success to develop early social play using behavioural approaches (Salt et al., 2001), a communication focus (Chandler et al., 2002) and parental imitation of the child (Dawson and Galpert, 1990). Wolfberg (1988, cited in Wolfberg, 1999) started integrated playgroups to develop peer play, using principles that Rogoff (1990) has referred to as 'guided participation'. This work has continued with increasing sophistication in the training of peers (Oke and Schreibman, 1990; Pierce et al., 1995; 1997; Zercher et al., 2001). Some, however, report the need for structured intervention before the child with an ASD can gain from an integrated experience (Roux et al., 1998; Stahmer, 1995, 1999; Thorp et al., 1995). There is some confusion in these latter studies over the distinction between 'play' and 'trained behaviour', although it may be that training is necessary to 'kick start' more naturalistic play in children with ASDs.

Kok et al. (2002), in a crossover design with eight preschool children with autism, compared structured versus facilitatory teaching of play and found play and communication increased with both techniques, with more responsive play under structured teaching. However, for more able children the facilitatory approach was more effective in eliciting spontaneous communication and play.

Schuler and Wolfberg (2000) developed an integrated peer group model in which both the peers and the children with autism are trained to use attention directing behaviour and language to establish joint attention, model symbolic play, and embed the autistic behaviour in the context of a chosen play theme (see Yang et al., this issue). Rogers (2000) has reviewed attempts to increase social interaction in children with autism and concludes that they are responsive to a wide range of interventions. Peer tutoring (Choi et al., 2000; Odom and Strain, 1984), sociodramatic script training (Goldstein et al., 1988), using obsessions functionally as the theme for a social game (Baker et al., 1998), adopting a cognitive strategy (Erik et al., 2000), and naturalistic teaching to stimulate play and interaction (Kohler et al., 2001) have all proved somewhat successful with children with autism.

As Jordan and Libby (1997) conclude, teaching spontaneous play skills to children with autism, or developing existing play skills, is not easy; if it were so, it would not be a recognized core problem of autism. Retting (1994) also expresses concern as to whether or not attempts to facilitate play in children with autism have any lasting effects on their behaviour.

More recent attempts, however, have shown that combining social mediation of peers with structured and engaging teaching of more complex symbolic play scripts can produce generalizable, ecologically valid play skills in children with ASDs, even when there are additional learning difficulties.

Conclusion

A review of social play in autism reveals the complexity of the issues involved. In autism, natural play patterns are characterized not just by delayed or deficient levels of cognitive complexity but also by the effects of asocial development: little adjustment of play patterns over time to involve others and fewer opportunities to experience and learn play scenarios. Conversely, lack of recognized and socialized patterns of play leads to further social isolation and fewer opportunities to engage in the social and cultural learning facilitated by play. The transactional nature of these difficulties has a devastating effect on the development of children with autism, which extends beyond the period of childhood when such play behaviours are most in evidence. The failure to experience spontaneous, affect-driven and collaborative patterns of behaviour leads to difficulties in self-awareness, motivation, memory, socialization and self-control. Teaching social play from early dyadic interactions through to symbolic play scenarios offers an opportunity to prevent or ameliorate many of these secondary consequences of autism. The possibility that social play can be both a result of, and a means towards, imaginative play, suggests the ontology of autism involves a transactional relationship between social and cognitive difficulties rather than a single primary root.

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