

Adolescents with social disabilities and their peers: Intervention, identity, and judgments about  
exclusion

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Kristen Marie Bottema

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Committee in charge:

Professor Laura Sterponi, Co-Chair  
Professor Pamela J. Wolfberg, Co-Chair  
Professor John F. Kihlstrom

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## Abstract

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Kristen Marie Bottema

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The first study in this series combines quantitative and qualitative methodologies to explore a social group intervention designed to promote engagement between teenagers with social disabilities and their typically developing peers. 15 adolescents with autism spectrum or related social disorders and 24 typically developing peers were recruited from a summer sports camp where participants were enrolled in a counselor training program. Quantitative analysis involved two constructs measured on a five point scale; the degree of affective engagement between participants and the ‘flow’ of interaction. Measurement contexts in the treatment phase included adult facilitated and un-facilitated interactions within the social group. Analysis showed that participants with social difficulties made statistically significant gains after a treatment condition as compared to a control condition in the facilitated measurement context along both constructs. Video clips of the social group assessment contexts were analyzed again using conversation analysis methodology. The analysis highlighted facilitation strategies that appeared to be important factors in sustaining interaction. The facilitator ensured that all participants had a relevant role in the activity, filled in gaps to maintain a smoothly flowing interaction, allowed peer culture to emerge by loosening traditional rules, adapted her interaction style to suit the target participant’s preferred mode of interaction, and validated participant contributions. The results of this study will deepen current knowledge of social interaction among teens who experience social difficulty and their peers, as well as offer practical guidelines for promoting interaction and engagement in this population.

Using discourse analytic methodology, the second study examines video data collected during the social group intervention. The analysis focuses on the interactive means by which the participants construct the identity of the group member with autism, referred to as Randal. The concepts of emergence, positionality, indexicality, relationality, and partialness are used as a framework for understanding the characteristics of Randal’s identity as well as the social processes that contribute to its formation. Results revealed that characteristics commonly associated with autism and often conceived of as grounds for isolation, such as social aloofness, intense focus on particular activities, and unusual skills, were transformed into a more positive social identity within the intervention context.

The final study uses a clinical interview methodology situated within the domain theory approach to moral development to determine how adolescents make judgments about excluding peers with social disabilities. 38 participants between the ages of 13 and 18 were asked to evaluate and provide reasons for their judgments for four contexts; a classroom lab group, a casual soccer practice, a home, and a general education classroom. Results showed that participants were more likely to judge that exclusion from the soccer and classroom settings was unacceptable than from the lab group and home settings. Analysis of the reasoning scheme that participants employed when making these judgments showed that multiple considerations, such as group functioning in the lab group context and personal choice in the home context, were pitted against moral concerns of welfare and fairness. There were no differences found for gender or age group in either judgments or reasoning processes. This study complements the existing body of research on moral judgments, and offers educators valuable insight into how typically developing peers think about acts of exclusion involving peers with social disabilities.

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## Preface

This dissertation project is composed of three studies that focus on social interaction in adolescents with social disabilities and their typically developing peers. The data set for each study was collected during the summer of 2010 at a sports recreation summer camp. The research questions were inspired by a desire to know more about the interaction potential of adolescent peer groups when at least one individual in the group has a diagnosed social disability such as autism spectrum disorder. This includes understanding how an adult supported intervention affects the quality of interaction, and how the social identity of an adolescent with ASD is constructed in this context with the collaboration of his peers. Since peers play such a vital role in ensuring that adolescents with social disabilities are included in the peer culture, it is also important to know how they view the moral implications of excluding such individuals in a range of contexts. Underlying each study is a theoretical framework that sees social interaction, as well as reasoning about these interactions, as an irreducible social phenomenon that must be studied with a holistic approach that remains faithful to the meaning-making process.

## Chapter 1: A mixed methods analysis of a social group intervention for adolescents with social disabilities

Autism spectrum disorders (ASDs) are a group of developmental syndromes currently diagnosed in the U.S. at a rate of 1 per 110 births (Department of Health and Human Services, Center for Disease Control and Prevention, 2009). Individuals with ASD experience differences in social interaction, communication, and behavior (American Psychiatric Association, 2000). These differences can manifest in an increased risk for poor life-long outcomes including depression, anxiety, under-employment and a lack of community involvement (Bauminger & Kasari, 2000; Ghaziuddin, Ghaziuddin, & Greden, 2002). Adolescents with ASD experience a pronounced difficulty in engaging with peers, as social interactions become more complex and the likelihood of peer rejection and exclusion increases during this age period (Chamberlain, Kasari, & Rotheram-Fuller, 2007; Orsmond, Krauss, & Seltzer, 2004; Shea & Mesibov, 2005; Symes & Humphrey, 2010). Research indicates that individuals with ASD desire to interact with others, but often feel unsuccessful in doing so (Bauminger & Kasari, 2000; Müller, Schuler, & Yates, 2008). To date, there is little research on social intervention strategies for adolescents with ASD (Reichow & Volkmar, 2010), as mandates for early intervention have led to a research focus on younger children.

Most intervention approaches targeted to adolescents with ASD attempt to mitigate social difficulty by teaching normative behavior in clinical or ‘naturalistic’ contexts. These approaches are characterized by adult manipulations that vary greatly from actual social activities that adolescents are likely to engage in independently (McConnell, 2005; Reichow & Volkmar, 2010). The strategies employed by these interventions tend to be rooted in social cognitive or behaviorist principles, which inform both the design and the outcomes measured. Social cognitive approaches focus on teaching social concepts such as perspective taking, expected versus unexpected behavior, and self-management (Reichow & Volkmar, 2010; Winner, 2007), and are generally used to support higher functioning adolescents with ASD. Behaviorist approaches use principles of applied behavior analysis such as discrete trial training methods (Smith, 2001) to teach individual pro-social behaviors, such as saying hello when entering a room, waving goodbye, or saying thank you after making a request (Rao, Beidel, & Murray, 2008).

Criticisms have been made of both of these paradigms, as outcomes are often de-contextualized, carry little social meaning, and do not generalize to contexts other than where the behavior was taught (Carr, 2007; Jordan, 2003). Further, the trend toward including individuals with ASD in general education classrooms (Humphrey & Lewis, 2008) indicates a need for research that is situated within authentic social contexts that include typically developing peers and reflect the adolescent peer culture (Fasulo & Fiore, 2007; Sterponi, 2004; Wolfberg, McCracken, & Tuchel, 2008). In a recent review of social interventions for school age children with ASD, Koenig and colleagues point out that outcome measures should reflect the multi-dimensional nature of social reciprocity to ensure that the intervention is actually targeting dynamic and meaningful abilities to engage in real world social interaction (Koenig, De Los Reyes, Cicchetti, Scahill, & Klin, 2009). The purpose of this study is to determine the effects of a short-term peer intervention program designed for adolescents with autism on the level of intersubjectivity attained between target participants and their peers involved in the intervention.

### **Theories of Social Interaction and Development**

**The social world and ASD.** Social interaction can be described on multiple hierarchical levels, with socio-cultural dispositions and expectations positioned at the top and interpersonal processes that inform the ways in which individuals negotiate face-to-face interactions in different contexts positioned at the bottom. Top- down (i.e., social/historical conventions) and bottom- up processes (i.e., interpersonal coordination and the negotiation of group norms) influence social interaction and feed-back on each other in a reciprocal fashion (Giddens, 1979).

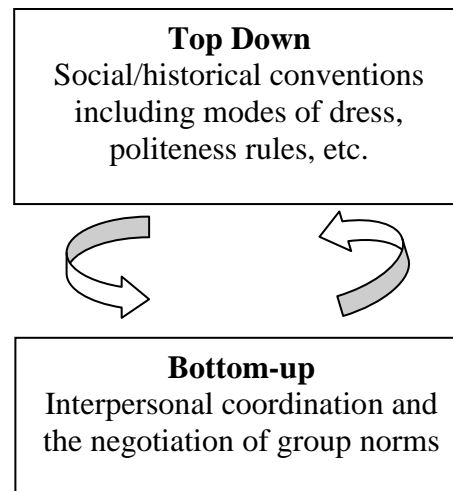


Figure 1. Processes of social interaction

In order to navigate bottom-up mechanisms individuals employ social knowledge and embodied action in various domains, often across several activities that occur simultaneously (Klin, et al., 2003; Ochs, 2002). This includes such knowledge as understanding when conventions can be changed or discarded, and knowing how to introduce new norms (Ochs, Kremer-Sadlik, Sirota, & Solomon, 2004). These new norms then become sanctioned and recognized as acceptable ways of behaving, and help to define a sense of intimacy and camaraderie.

In interaction, individuals track and interpret others' actions while noting their stance, feelings, and disposition in regards to the situation at hand and the larger social activity. Social actors are also responsible for projecting a definition of the situation that is consistent with how others perceive the interactive context (Goffman, 1959). They must assert their own actions, stances, and social identities in collaboration with others. Actions and stances are tied to expectations about what participants should say and how they should behave. These expectancies can be challenging for individuals with ASD as they are in constant flux (Kremer-Sadlik, 2004). To further complicate matters, larger socio-cultural meanings are often not stated explicitly but are instead referenced in indexical forms of language and behavior, whose interpretation relies upon members' shared knowledge of conventional relationships between language, events, and social arrangements (Ochs et al., 2004). Individuals with ASD may have difficulty matching the index to its particular referent, making it difficult to develop a shared understanding about the social world. Importantly, individuals with ASD might have few social experiences with their same-age peers from which to develop this knowledge.

Individuals with autism are often characterized by an insistence on sameness (Carter, Davis, Klin, & Volkmar, 2005), which manifests in an adherence to top-down social constructions such as 'classroom policies' (Ochs et al., 2004), an unusually formal interaction style (Dobinsson, Perkins, & Boucher, 2003; Paul, Orlovski, Marcino, & Volkmar, 2009), and

behavioral rigidity. Indeed, high functioning adults with autism have described social engagement as a process of applying inflexible, abstract concepts that are successful in some respects but provide little access to more subtle forms of interaction (Grandin & Barron, 2005). Top-down social processes are also at play in culture-wide dispositions toward individuals with ASD, whose social identity is partially constructed prior to any social contact through perceptions and institutional arrangements that accompany an ASD diagnosis (Humphrey & Lewis, 2008). Actual social contact with typical peers may be minimal in instances where students with ASD are educated apart, further circumventing opportunities for the creation of cultural dispositions that are more accommodating to individuals with ASD.

**Theories of social development in ASD and typical populations.** A widely used theoretical approach that attempts to describe the social differences found in ASD, is the *theory of mind* (ToM) deficit theory (Baron-Cohen, Leslie, & Frith, 1985). This theory belongs to a larger group of social-cognitive theories that view the developing child as an active experimenter who devises, tests, and revises theories about the world around him (Gopnik & Meltzoff, 1997). These theories assert that in terms of developmental processes, there is no fundamental difference between how children come to know about the physical world made up of objects and things, and the social world made up of people and relationships (Asch, 1952). A theory of mind is defined as the conceptual ability to attribute mental states—intentions, beliefs, and desires—to others. According to this theory, when individuals are able to take a theoretical stance toward understanding another person's mind, they use this understanding to explain and predict the behavior of others as well as interact successfully in social contexts. In the extreme sense, individuals with ASD might not be aware that others even have minds that are separate and distinct from their own; instead they impose their own perspective and knowledge on others and assume that what they know and believe is shared by everyone. Many interventions that follow this line of thought attempt to teach social rules and concepts (such as *theory of mind*) apart from actual social interactions in relevant social contexts. This approach has shown limited generalization to real-life social situations (Klin, Jones, Schultz, & Volkmar, 2003), and reinforces an idealized version of social interaction that is not reflective of how people behave in actual social scenarios (Fasulo & Fiore, 2007).

Likewise, the *theory of mind* view of autism has been criticized as too de-contextualized and simplistic to be an accurate account of the diverse and complex social differences found in ASD (Gallagher, 2004; Hobson, 1991). It also situates the deficit exclusively within the individual carrying the diagnosis, rather than recognizing that 'social dysfunction' has wider implications that must account for the difficulty that typically developing individuals have when trying to interact with those diagnosed with ASD as well as the reverse situation (McGreer, 2001). Recent theories from a wide range of disciplines have proposed more dynamic explanations that situate individuals with ASD in more thoroughly explored interpersonal, cultural, and social contexts (Gallagher, 2004; Hobson, 1993; Hobson & Hobson, 2008; Klin, Jones, Schultz, & Volkmar, 2003; Ochs, 2002; Ochs, Kremer-Sadlik, Sirota, & Solomon, 2004; Sterponi & Fasulo, 2010). These theories propose that social interaction is less reliant on abstract concepts or a pre-defined behavioral repertoire and more reliant on attuning to and perceiving meaning in one another's behavior, being motivated to participate in social interaction as an end unto itself, and actively adapting to the interactional context as it unfolds.

Several authors have noted that some individuals with autism pass traditional theory of mind tasks, and yet are still unable to apply this knowledge in real-life social situations (Gallagher, 2004; Klin et al., 2003). Most clinical assessment situations are what Klin and

colleagues (2003) refer to as closed domain, in that they constrain the social world to a measurable and pre-determined set of factors. However, real life social situations are open domain, and consist of a wide variety of constantly variable factors that must be attended to and considered as socially important by the individual. The social landscape can be said to have a 'topology of salience', where each aspect has a relative importance determined by the individual in social interaction. Social interaction is not reducible to set of propositional rules (knowing that), but is instead an embodied performance inseparable from action (knowing how). Having a theory of mind without being able to engage in the practice of interaction is therefore like having a 'roof without a foundation' (Klin et al., 2003); an individual may conceptually understand that others are separate selves with distinct thoughts and beliefs, but be unable to employ, perceive, or understand subtle and fast moving social cues in order to construct coherent meaning from social interaction.

Hobson and Hobson (2008) put forth a relational theory of social development, and offer an account of how their theory can be used to explain the developmental differences in autism. Evidence from developmental psychology suggests that in the first year of life, and possibly even from birth, infants perceive meaningful emotion in others' faces within the context of interaction (Reddy, 2008). Young infants become upset when their mothers interrupt an interaction and maintain a still face, and show preference for emotionally interactive faces in videos as opposed to static faces in pictures (for a review see Mesman, van Ijzendoorn, & Bakermans-Kranenburg, 2009). Infants appear to seek co-ordination with others in positive affective interaction from very early on. Indeed, perceiving the emotions of another person very often involves having an emotion one's self, highlighting the reciprocal and dynamic nature of social perception and interaction. Hobson (1993) emphasizes that

...the reciprocal nature of personal relations is at once behavioral and experiential: the patterns of correspondence or complementarity between the actions and expressions of human beings is the source as well as the expression of something 'felt or shared by both parties' (p. 234).

Thus, the basis for primary intersubjectivity is a biological capacity for affective relatedness. Indeed, distinctions that are often made between cognition on the one hand and affect on the other may be meaningless in this description; relatedness may be foundational for, rather than derivative of, what is described as cognition and affect.

Eventually, the child comes to know that others are intentional beings with thoughts directed outwards toward the world. Rather than appealing to a theory of mind as the foundation on which social understanding is built, Hobson describes a trajectory that gives primacy to early experiences of intersubjectivity between mother and infant. Social referencing experiments provide a case example of this phenomenon. In an experiment where young infants are placed on the shallow side of a plexiglass plate placed over a patterned cloth that appears to drop off at one end, children as young as one year look to their mother when they come to the perceived edge and adjust their behavior in response to her expression (Campos & Stenberg, 1981; Sorce, Emde, Campos, & Klinnert, 1985). This suggests that the child perceives a particular meaning directed at the state of affairs in the world in his mother's behavior. Pre-reflective and very early developing capacities to affectively engage with others provide the starting material in understanding others as subjective agents. Later developing conceptual awareness of others as well as of self are built upon this early affectively-based knowledge, including knowledge of

beliefs and the subjective nature of mind. Before children know that different people have different beliefs, they directly perceive affective attitudes toward the world. Even after later emerging conceptual abilities allow for a theory of mind to develop, interpersonal interaction still relies primarily on pre-reflective, affective processes that allow for the “*participation in other people’s* bodily expressed attitudes and actions, whereby one is moved to encompass and to some degree adopt the orientation of others alongside or in relation to one’s own psychological stance “(Hobson & Hobson, 2008 p.118). Non-affective accounts (such as meta-representational or theory theory accounts) do not explain how children find meaning in the quality of their own or others’ experiences that are the basis for mental representations, or how representations are attributed to people in the first place.

For reasons that are not well understood, children with autism are often unable to achieve intersubjectivity with others. Autism was originally described by Kanner (1943) as a disorder of affective relatedness, not as an impairment of conceptual understanding, which has obvious implications for Hobson’s argument. A restricted ability to experience emotions with others cascades into downstream developmental effects:

...such limitations in the capacity for affectively patterned subjective experiences that are coordinated with the experiences of others, and corresponding disability in relating to the affective attitudes of others vis-à-vis a co-referenced world, might seriously constrain autistic children’s understanding of ‘minds’ and communication, and through this restrict their ability to symbolize (Hobson, 1993; p. 242).

In this sense, meta-representational ability is developmentally and interactionally secondary to the direct perception of social meaning; metarepresentation is the result of meaningful social experiences, not the process that allows for social experiences to occur (Gallagher, 2004; Hobson & Hobson, 2008).

Autism appears to be a case where these early relational-affective processes have not developed along the typical trajectory. Prospective studies of infants who are later diagnosed with autism show differences at 12 months in attention patterns as compared to typically developing infants (Hutman, Chela, Gillespie-Lynch, & Sigman, 2011). They were more likely to attend to a toy than a researcher feigning distress, a situation that for most infants holds highly salient social information. Sensorimotor and perceptual issues may also play a role. Trevarthen and Daniel (2005) have demonstrated that a young infant of 11 months of age who was later diagnosed with autism was unable to regulate his purposeful movements to be coordinated and in sync with the movements of his caregiver; this is in contrast to a twin who was not later diagnosed with autism. Caregiver-child interactions were characterized by co-regulated movements that enabled reciprocal interaction. With this twin, the parents showed an expectation in their interactions that he would be motivated to share expressions of surprise and joy. These expectations were absent with the twin later diagnosed with autism, and possibly fed into a cycle where mutuality and co-regulation was not achieved and not expected.

Eye-tracking experiments conducted with high-functioning adults with autism (Klin, Jones, Schultz, Volkmar, & Cohen, 2002) show that these individuals do not attune to the same features of a visual social scene (in the case, from the movie *Who’s Afraid of Virginia Woolf?*) as typical adults. While non-autistic adults are more likely to focus on persons than they are to focus on things, and the eye-region of the face as opposed to the mouth, adults with ASD were more likely to focus on objects not related to the unfolding interaction such as a light switch.

When they did focus on the face, they were more likely to focus on the mouth than the eyes, suggesting that they were seeking simple auditory information and not affective-expressive information that is characteristic of the eye region. Therefore, even in adulthood and even for individuals with intact cognitive functioning, the perceptual meaning systems of social activities are not functioning in the same way as typical adults.

Gallagher (2004) and Klin et al. (2003) suggest that these findings may be related to the demonstrated difficulty that individuals with autism have in perceiving part-whole relationships, described as ‘weak central coherence’ (Happé & Frith, 2006). While typical individuals have a natural propensity to perceive stimuli in a global and contextually-embedded fashion, individuals with autism show a preference for perceiving discrete details that are not bound to other details or the context in a meaningful or holistic way. This extends to interpersonal interactions, as individuals with autism perceive social actions as separable components rather than a unified system of actions with social meaning.

This research has profound implications for intervention, as it suggests that early social experiences are qualitatively different for children with ASD as compared to typical children, and do not have the same inherent meaning as social experiences in typical development. Therefore, facilitating meaningful social interaction should be the starting point for intervention, rather than promoting normative behavior that may not have a foundation in social meaning. Likewise, the attainment of intersubjectivity is itself an important intervention outcome to track to ensure intervention efficacy.

### **Intervention Purpose and Approach**

The intervention design, data collection methods, and data analysis procedures utilized for this study are firmly situated in the above described theoretical treatments of social development and interaction. These frameworks emphasize that the interaction itself is an irreducible and important locus of study, as opposed to a piecemeal examination of individual behavior studied in isolation from the social activity. Given the proposition that autism is primarily a disorder of affective relatedness and results in a failure to achieve intersubjectivity with others, this study aims to test the effects of an experiential intervention on two constructs of intersubjectivity; affective engagement and the ‘flow’ of reciprocal interaction. For this study, flow of interaction is defined as the degree of smoothness of exchanges between interaction partners, in terms of rhythm, timing, contingency of conversational moves, and the sequential nature of interaction. Both conversation and engagement in the activity are relevant loci of interaction, and nonverbal as well as verbal aspects of interaction are considered. Markers of flow include shifting eye contact as speakers change, nodding head along to interaction partner’s speech, and closely timed responses to others’ speech. Flow can also be displayed tacitly, as interaction partners mutually engage in an activity without necessarily giving direct acknowledgement (e.g., verbal indication or direct eye contact) to one another of what they are doing. This is characterized by each partner engaging in the activity in a way that flows with how the other partners engage in the activity, a ‘division of labor’ that makes sense for the activity and allows it to proceed smoothly in joint cooperation. This definition is taken in part from theories of embodied action, expressed concisely by C. Goodwin:

Central to what is occurring ... in face-to-face interaction in general [is] socially organized, interactively sustained configurations of multiple participants who use the public visibility of the actions being performed by each others’ bodies, the unfolding

sequential organization of their talk, and semiotic structure in the settings they inhabit to organize courses of action in concert with each other (2000; p. 1518).

The second variable, affective engagement, is defined as the degree of affective sharing between interaction partners, or a feeling of connection and a shared mood. Affective markers include a range of expressions such as tone of voice, laughter, eye contact, overall demeanor, and emotional indices in conversation. An interaction is ranked highly if all of the participants appear to share in the affective signals that they perceive and display, including signals of neutrality as well as the high and low ends of the emotional spectrum.

Prior studies have shown that children with autism differ on these constructs from their typically developing age-mates (Garcia-Perez, Lee, & Hobson, 2007). If these theories are to be taken seriously, intervention approaches should take care to recognize that fostering social interaction might not be compatible with approaches in which expected social behaviors and abstract social concepts are taught in the absence of peer interaction. Social interaction abilities do not develop through a process of one-way transmission from adult to child; instead, the ability to engage with others is developed through experience in culturally textured contexts (Bibok, Carpendale, & Lewis, 2008).

There is evidence that pairing children with ASD and their typically developing peers in social experiences increases social and communicative competence in individuals diagnosed with ASD, and promotes membership in a society of peers (Wolfberg & Schuler, 1993; Wolfberg, 1999/2009). The Integrated Play Groups model, an intervention primarily developed for young children, has been adapted to support adolescents aged 12-18 years (Bottema-Beutel, 2011). In this program, teens meet in small groups of up to six participants with a 1:1 or higher ratio of typical peers to teens with ASD, and are guided by an adult facilitator<sup>1</sup>. In contrast to a skills-based instruction approach, social interaction is learned through experience. Importantly, idiosyncratic behavior characteristic of autism is ratified as meaningful rather than targeted as a deficit in need of remediation. Meetings take place in a safe, supportive environment such as a summer camp, after school program, or classroom. The following four goals are pursued in social group sessions; 1) foster motivation for teens with ASD and typical teens to engage in socialization together, 2) provide entryway for teens with ASD into a peer culture, 3) educate typical teens about ASD through direct experience, and 4) enhance the potential of teens with ASD to engage in positive social experiences with their peers.

While pilot data suggests that favorable interactions between adolescents with and without autism do occur in a social group setting (Bottema-Beutel, 2011), there is a need for additional empirical research to fully explore discourse practices at play in social groups, and determine how reciprocal interaction and judgments about exclusion change as a result of participation. Contributing to a better understanding of peer interaction and gaining insight into effective intervention strategies will significantly impact adolescents and families living with ASD, as it will promote richer social lives and greater peer group membership. It will also give educators and other professionals practical knowledge about how to design social interventions within an inclusive environment.

The intervention studied here is a departure from many popular treatment approaches; it is designed to reflect the dynamic and complex features of face-to-face interaction that cannot be

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<sup>1</sup> 'Facilitation' in this article refers to adult support in social interaction, not to the controversial Facilitated Communication techniques described by Biklen et al. (1992).



reduced to the application of social cognitive rules for behaving. These social groups are situated in an interactive context as opposed to a direct instruction scenario, and outcome measures seek to determine the interactional achievements of all participants rather than pro-scribed behavior that is a-priori thought to be desirable.

## **Methods**

This study utilizes both quantitative and qualitative methodology within a repeated measures experimental design. Participants who participated in the social group intervention engaged in both control and treatment phases. This design allows each subject to act as their own control, and eliminates the effects of possible differences in control and treatment groups. Outcome measures include group interaction constructs previously described in the literature (Garcia-Perez, Lee, & Hobson, 2007), including affective engagement and flow of interaction. These measures differ from more widely used measures of discrete behavior. They are meant to be objective means of capturing the level of intersubjectivity achieved between participants, rather than measures of individual behavior; this technique is thought to be appropriate for measuring social interactional variables that unfold sequentially in time (Bakeman & Gottman, 1997). The qualitative portion of this study is meant to thoroughly describe the sequential nature of how participants achieve intersubjectivity as they negotiate interactions during the intervention. Discourse analytic methodology was employed to explore participants' talk in relation to how intersubjectivity was achieved throughout group meetings.

### **Intervention Protocol**

All social group sessions took place at camp headquarters in one of two designated spaces; an indoor space for cold or rainy weather, and an outdoor space for sunny weather and activities that required ample room. Sessions lasted 60 minutes, and occurred every week day during a one-week period for a total of 5 sessions (two of the eight groups met for four 75-minute sessions, since the treatment phase fell on a week where the camp was only open for four days due to a holiday). Social groups were presented to participants as a teambuilding workshop, and at the camp's request there was no mention either before or during the session that social skills track participants were also involved in the workshop, unless social skills track participants brought it up themselves; this occurred in two different groups.

A camp volunteer was trained by the researcher to facilitate five of the eight groups; the researcher facilitated the remaining three groups. Facilitator training included approximately 8 hours of 1:1 meetings with the researcher, involving an overview of facilitation strategies, an in-depth discussion of the rationale for the intervention design, and a review of videos from previously conducted groups. Sessions followed a standard curriculum that was designed by the researcher. The facilitator was encouraged to use the curriculum as a guide, and adapt activities and discussion points according to group interests and preferences (see appendix B for a sample session outline). Each session began with a brief introduction of the day's activities by the facilitator, followed by personal updates from group members, a participant-led ice breaker, a team-building activity, and ended with a debriefing discussion. A fidelity checklist (see appendix C) was created and implemented by the researcher to prevent 'drift' from intervention procedures (Gersten, Baker, & Lloyd, 2000). The researcher attended and monitored each social group meeting, acting as an assistant to the facilitator, and reviewed the checklist with the facilitator a minimum of three times per five-day intervention period. Any issues with

implementation of the intervention were discussed during these review meetings. Facilitator strategies have been field tested by the researcher over the course of two formal pilot studies conducted during a two-year period (Bottema, 2009; Bottema-Beutel, 2011). Facilitation strategies include two types; those that prepare the group and setting, and those that are used during social group sessions.

**Preparatory work.** Prior to beginning the intervention, information was gathered about each participant in order to form appropriate groupings based on shared interests (Wolfberg, 2009). During the recruitment process, each potential subject was given a questionnaire to determine the kinds of activities that they enjoyed participating in, and what they hoped to experience in the workshop. Once preliminary groups were formed, camp supervisors were consulted to ensure that the groupings would not result in any obvious clashes in personality.

Next, activities were designed so that they reflected the general interests of the participants (Koegel, Werner, Vismara, & Koegel, 2005), included a variety of roles so that group members with different strengths could find a meaningful way to participate (Wolfberg, 2009), offered opportunities for multiple modes of engagement (such as verbal interaction, sharing materials, and coordinating actions within the activity), and were consistent with the kinds of activities that would be expected in a camp team-building workshop. Camp staff members were again consulted to determine the kinds of activities that the camp had done in the past, and which were particularly successful and interactive. These were then adapted to be appropriate for each group.

Lastly, a large white board was prepared before each session to visually display the day's schedule and discussion themes. Visual supports have been shown to be a vital component of interventions for individuals with autism, as they provide cues of current and upcoming activities and aid in transition (Dettmer, Simpson, Myles, & Gantz, 2000).

**In-situ facilitation.** Once the intervention sessions began, the facilitator was responsible for ensuring that each participant adequately 'bought-in' to the workshop and thought of it as a worthwhile and enjoyable way to spend their time (Bottema-Beutel, 2011). In order to foster a culture of inclusion (Wolfberg, McCracken & Tuchel, 2008), the facilitator framed each activity as a way to explore how groups composed of individuals with diverse abilities, backgrounds, and interests can collaborate to form dynamic and successful teams. This topic was an ongoing thread within debriefing discussions that followed each activity. Notably, the participants with social disabilities were not regarded as individuals with lower status or in need of help; a tutoring situation was deliberately avoided to ensure that each participant maintained an equal footing (Bottema-Beutel, 2011; Wolfberg, McCracken, & Tuchel, 2008). Any behavior that appeared to be confusing or misunderstood by the typically developing participants was subtly interpreted, reframed, or explained (Wolfberg, 2009). This included idiosyncratic behavior that can be characteristic of individuals on the autism spectrum, as well as instances when the participant with a social disability appeared to be unable to follow the interaction. The facilitator also scaffolded participation in conversation and the activity (Wolfberg, 2009); using strategies such as posing leading questions to any participant that appeared to be left out of the interaction, pointing out shared interests and commonalities, and validating any attempts at participation that were not readily taken up by other group members (Bottema-Beutel, 2011).

## **Participants and Setting**

Participants were recruited from a summer camp coordinated through the recreation sports division of a large University in the western United States. The camp serves elementary-

age students, and offers sports and leisure activities such as soccer, softball, and chess. The camp also offers leadership training programs for adolescents aged 12-18. These programs are divided into three levels, determined by the enrollee's age, past experience at camp, and leadership ability. In ascending order, these levels include Campers in Leadership Training (CILTs), Counselors in Training (CITs), and Junior Counselors (JCs). Embedded within the leadership training program is a "social skills track" designed for adolescents who experience significant social difficulty. Many of these students have a diagnosis on the autism spectrum, and all receive special education services with specific goals to remediate social skills deficits. Individuals enrolled in the social skills track receive staff support in job training, social skills instruction, and coaching while performing camp job responsibilities. Tasks are individualized for each participant, but a prototypical daily schedule might consist of helping to set up camp, assisting with group camper instruction, job skills class, lunch, additional camper instruction, and ending with assisting in cleaning up camp materials for the day. While participants in this program were required to interact with adult camp counselors as they assisted in camper instruction, their interaction with peers in the leaders in training who were not also enrolled in the social skills track remained minimal. This was especially evident during lunch period, as the two groups ate in separate spaces of the camp. The camp does not explicitly disclose which leaders in training participants are enrolled in the social skills track; every effort is made to maintain confidentiality that these individuals receive special education or camp staff support.

A total of 15 adolescents with either an ASD diagnosis or documented ASD symptomology (i.e., impairments in social interaction, communication, and behavior) without a formal ASD diagnosis were divided into eight social groups. Camp staff members screened applicants to the social skills track program to ensure that they are in need of social supports, and that they do not engage in self injurious or aggressive behavior. The screening process involves candidate and parent interviews, as well as reviews of Individualized Education Plans (IEPs) and psychological assessment data. A total of 24 typically developing adolescents (i.e., were not eligible for special education services and were not enrolled in the social skills track) were also recruited to participate; three typically developing participants were assigned to each of the eight social groups.

### **Experimental Data Collection and Analysis.**

Over the course of each summer at Star Camp, five two week sessions take place between June and August. Because of the relatively low number of participants that enroll in the social skills track in a given summer, a within subjects design was employed to maximize data collection opportunities. For each session, the first week served as the control phase, and the second week served as the treatment phase. To measure interaction, a 7 minute segment of interaction during an un-facilitated group activity was conducted with each subject in the social skills track as the focal point one week prior to the start of the intervention (control phase). 14 minute segments of each social group were also filmed during the first and last day of the intervention period, including 7 minutes of un-facilitated interactions, and 7 minutes that were facilitated by an adult (treatment phase). Because the control phase data was collected prior to the beginning of the intervention, there is no facilitated measure for this time point, as there would be nothing to facilitate. Filming took place in a designated room at camp where the social group met for weekly sessions, and occurred during the main team-building activity for each session. Film clips were then edited to three minutes, beginning with minute two of each assessment condition, and ending with minute five.

Two independent coders blind to study conditions rated video segments for the level of affective engagement and ‘flow’ of interaction. Each construct was rated on a scale of 1-5, with a rating of one being the lowest end of the scale and a rating of five being the highest (Garcia-Perez, Hobson, & Lee, 2007; see appendix A for complete definitions). Coders were trained by the researcher using video clips not used in the final analysis, and training continued until consensus was reached on each video. Coders overlapped on 25% of the data (20 observations) in order to calculate inter-rater reliability. Weighted kappa for affective engagement was .57, and .64 for flow of interaction. According to Landis and Koch (1977), the kappa value for affective engagement is on the border of moderate and substantial agreement, while the value for flow of interaction is within the range of substantial agreement. These values are also consistent with previously reported literature using these constructs (Garcia-Perez, Hobson, & Lee, 2007). The fact that these measures were meant to offer a balance between maintaining the subjective feel of interaction quality with the need for objectivity in measurement made it especially difficult to achieve higher levels of reliability between raters.

Within-subjects ANOVA, with affective engagement and flow of interaction as repeated measures, were used to determine the effects of the intervention phase as compared to the control phase for each interaction construct across time points and in facilitated and un-facilitated scenarios.

### **Qualitative Data Collection and Analysis.**

This component of the study utilized discourse analytic methodology combined with participant observation to study the turn-taking organization of talk, with a focus on how current interactive moves project and constrain relevant next moves. This allows for an interpretation of the participant’s own orientation to talk as it proceeds sequentially in interaction (Hutchby & Woofit, 1998; Sacks, Schegloff, & Jefferson, 1974; ten Have, 2007). For the purposes of this study, bodily action as well as verbal utterances will be considered as communicative moves. Discourse analytic methods complement dynamic theories of social interaction, since the unit of analysis is the sequential interaction itself rather than an isolated individual. Furthermore, these approaches seek to describe the dynamic and unfolding nature of interaction that is negotiated in real time, rather than defined in advance (De Jaegher & DiPaolo, 2007). Because the outcome variables were defined in qualitative and sequential terms, rather than as a tally of how often particular behaviors occur, this type of analysis is particularly worthwhile when trying to understand the collected data.

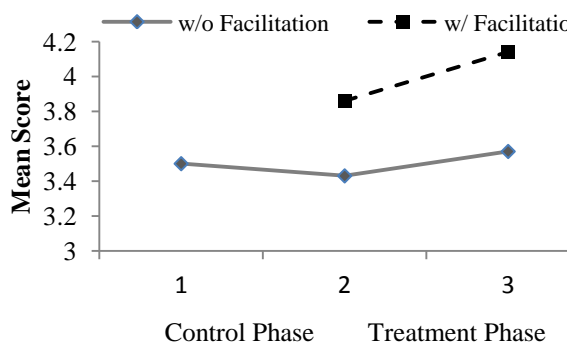
Video data of each social group meeting were collected for each of the eight social groups, which culminated in approximately 43 hours of video recordings. In order to more closely examine the interactional nature of the data, video clips that were considered quantitatively as described above were also systematically selected, transcribed, and analyzed according to discourse analytic procedures. Facilitated clips were chosen to determine how the facilitation process may have contributed to higher degrees of flow and affective engagement. Once a collection of extracts was chosen, the researcher focused on the following steps for analysis recommended by Schegloff (1996, cited in Ten Have, 2007: 121):

1. A formulation of what action or actions are being accomplished
2. A grounding of this formulation in the “reality” of the participants
3. An explication of how a particular practice, i.e. an utterance or conduct, can yield a particular, recognizable action

## Results

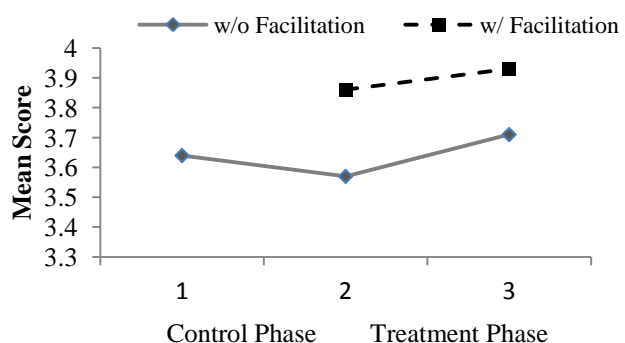
### Quantitative Analysis

Data were collected for each subject across all time points with the exception of two participants; for one subject data were collected only for the control phase pre-assessment, and for another subject data were collected only for the control post/treatment pre- assessment, treatment pre-assessment with facilitation, treatment post-assessment, and treatment post-assessment with facilitation. These participants were kept in the calculations for group means shown in figures 1-3, but were automatically dropped by the statistical software in the remaining calculations, resulting in a total of 65 observations across 13 participants.



n=15 subjects

Figure 2. Change in affective engagement



n=15 subjects

Figure 3. Change in flow of interaction

Within-subjects ANOVA analysis shows a significant difference between measures for affective engagement and flow, with F (65, 4) statistic 4.95 ( $p = .002$ ) and 2.63 ( $p = .045$ ) respectively. P values were calculated according to the Huyn-Feldt correction which takes into account the lack of sphericity across repeated measures; this correction was necessary since the measures are not interchangeable (time 1 is further from time 3 than time 2). See table 1 for means and standard deviations for each variable across assessments. Next, effect sizes were calculated for the total variance accounted for by each variable; affective engagement had a  $\omega^2$  value of .14, considered a large effect size while flow of interaction had a  $\omega^2$  value of .07, considered a medium effect size (Cohen, 1988). Figures 1 - 3 graphically illustrate the change in mean score for each outcome variable in the treatment and control phases, with and without facilitation. There is a trend toward an increase in mean scores for each interaction construct in the treatment as compared to control phase without facilitation as well as with facilitation. Mean scores appear to decrease in the control phase for both affective engagement and flow. Mean scores for facilitated interactions are higher than for un-facilitated interactions for both treatment phase observations. Post-hoc pair-wise comparisons of means show that only the change in means from the treatment pre-assessment and treatment post-assessment with facilitation show a significant difference for both constructs; affective engagement had a difference in mean score across these two assessments of 1.385 ( $p < .05$ ) and flow had a difference in mean score across

the same assessments of .923 ( $p < .05$ ). See table 2 for complete summary of pair-wise comparisons of means across all assessments.

Table 1  
*Means of Outcome Variables across Assessments*

Assessment	Mean Score (SD)	
	Affective Engagement	Flow
Control Pre-	3.5 (1.34)	3.64 (1.22)
Control Post –/Treatment Pre-	3.43 (1.16)	3.57 (1.09)
Treatment Pre- w/Facilitation	3.86 (1.23)	3.86 (.86)
Treatment Post-	3.57 (1.40)	3.71 (1.20)
Treatment Post- w/Facilitation	4.14 (.86)	3.93 (.73)
F (4, 65)	4.95	2.63
p-value (H-F)	.002**	.046*
Effect Size ( $\omega^2$ )	.14	.07

n=65 observations across 13 subjects

H-F indicates Huyn-Feld correction for lack of sphericity

Table 2  
*Pair-wise Comparison of Means*

Assessment	Control Pre-		Control Post –/ Treatment Pre-		Treatment Pre- w/Facilitation		Treatment Post- w/Facilitation	
	AE	F	AE	F	AE	F	AE	F
Control Post –/ Treatment Pre-	-.462	-.462						
Treatment Pre- w/Facilitation	.385	.308	.846	.769				
Treatment Post- w/Facilitation	.077	.077	.538	.538	-.308	-.231		
Treatment Post-w/ Facilitation	.923	.462	1.385*	.923*	.538	.154	.846	.385

AE= Affective Engagement

F=Flow

n=13subjects; 2 dropped due to incomplete data

\*indicates significance at the .05 level

\*\*indicates significance at the .01 level

## Discourse Analysis

In order to investigate why the facilitated sessions tended to achieve higher ratings of intersubjectivity than un-facilitated sessions, the sequential unfolding of social interaction was examined in each assessment video. The following sections will focus on the particular role of the facilitator in scaffolding interaction. Specifically, the following facilitative moves appeared important in eliciting and sustaining interaction; assigning roles as needed, maintaining the ongoing talk during conversational lulls, allowing peer culture to emerge by loosening traditional rules, adapting interaction style to meet the needs of the target participant, and eliciting and validating participant contributions.

The Integrated Play Groups model (Wolfberg, 2009) from which this intervention draws, describes in detail the process of scaffolding interaction when young children with autism are at play with their typical peers. Wolfberg describes several levels of support, which include the facilitator as ‘stage director’, who assigns roles to participants, suggests themes for play, and distributes appropriate props. In Goffman’s (1959) seminal study of everyday social interaction in which he uses the metaphor of a stage production to describe everyday social behavior, he discusses the process of assigning roles to participants in a similar manner:

...the director may be given the special duty of allocating the parts in the performance and the personal front that is employed in each part, for each establishment may be seen as a place with a number of characters to dispose of to prospective performers as an assemblage of sign equipment or ceremonial paraphernalia to be allocated” (Goffman, 1959; p. 99).

In this framework, ‘the director’ of a social engagement is the person responsible for bringing the group together, or someone who has an unofficial status as being the group leader. This description is in line with the conceptualization of the facilitator in the intervention described here. The fact that a ‘director’ is an established role in social life outside of an intervention context is important, as it lends credibility to the idea that a facilitator can foster authentic interactions.

The following segment illustrates the process of role allocation, as the group is engaged in an activity where they have been given photos of themselves taken over the course of the week while performing various workshop activities. They must arrange these photos on a poster board and write captions under each picture in order to make a story. The target participant is Nanda, a sixteen year-old female participant diagnosed with classic autism. When the facilitator notices that Nanda does not currently have a role in the activity, she gives guidance by offering input on how the group should allocate the parts required for the activity of making a story board:

Extract 1

1. Facilitator: ((sitting down at the table)) Alright so should you guys start gluing
2. Mary: That [should be like (1.0) ↑wha:at
3. Nanda: [(?)
4. Facilitator: Or you can cut
5. Jessie: So are you gluing each one where it is=
6. Mary: =And then this should be coming out of her blurb bubble (3.0) °so that we know that she says it°=
7. Nanda: =sweee
8. Facilitator: <you wanna glue?> ((passing the glue to Nanda))
9. Nanda: >I suppose I’ll glue it< ((picks up glue and opens it))

In lines 1, 4, and 8, the facilitator makes suggestions about gluing and cutting the photos. She directs her final question to Nanda, who responds in the affirmative that she will glue the photos. In this way, each group member has a role in the interaction that is vital to the completion of the project. Mary is working on the story line and captions, Jessie is cutting out the pictures, and Nanda is gluing. In the framework used by Goffman, encouraging Nanda to

take on a task is doing much more than guaranteeing that the photos are eventually glued to the poster board. It is giving Nanda a role in the group performance, and ensuring that she maintains access to the sign equipment that the group is using to carry out their performance.

Another important role of the facilitator is to fill in gaps in the conversation in order to maintain a smooth interaction and avoid awkward, extended pauses. Returning to Goffman's stage metaphor, he maintains that in addition to assigning roles, the 'director' of a social engagement has a responsibility for sparking the appropriate degree of involvement from participants. As the de facto director, this burden naturally falls to the facilitator when involvement is in danger of slipping. In extract 2, the facilitator's utterances in lines 3 and 6 both follow silences of 4 seconds, and serve to sustain engagement from the participants.

#### Extract 2

1. Mary: Or should we just take the kids out of it and just be like  
°↑one slow day (?)°
2. (4.0)
3. Facilitator: °(let me see your pictures)° ((reaches across table for photos)) °huh some of these pictures are so funny°
4. Mary: mmhmm I had her (?) last session
5. (4.0)
6. Facilitator: somehow (.) (use) that picture ((smiles))
7. Mary: Oh it should be like dot dot dot and then her face like  
[wh:↑hat?
8. Facilitator:  
[uh:↑h?
9. ((Facilitator and Mary both laugh))
10. Facilitator: like cricket cricket ((laughs))
11. Mary: yeah like ((laughs)) that's funny
12. Nanda: it is funny

The ongoing talk might then serve as an anchor for Nanda to eventually contribute her own utterance, which she does in line 12 when she agrees with Mary's evaluation that their idea for the story is funny.

Because these social groups are meant to provide a place where individuals with social disabilities can be initiated into an authentic peer culture, the role of the facilitator can be somewhat precarious, as the presence of an adult has the potential to stifle such a culture from being created. Therefore, the facilitator is tasked with actively scaffolding interaction as needed, while still maintaining some degree of invisibility and allowing the interactions to emerge naturally without undue adult influence. In the next two segments involving Randal, a 17 year-old male with high functioning autism, the group members are engaged in an activity where they are given a list of questions designed to elicit personal characteristics and experiences from each person. In extract 3, participants are discussing the prompt "find three group members who have read the same book". The group has determined that several members have read *Artemis Fowl*.

#### Extract 3

1. Rob: ((to Randal))you've read it?
2. Randal: ((nods))
3. Rob: alright [so people have- alright cool



4. LeAnn: [all the guys have ha
5. Hal: Artemis Fowl ((pumps fist))
6. Rob: he's so bad ass
7. Cameron: >°Arte[mis°< ((writing on paper))
8. Rob: [< I mean> were we not allowed to say that? no?  
((turns to facilitator))
9. Cameron: =Fow [uhl ((continuing to write))
10. Facilitator: [its fine (.) speak away

There are several levels of initiation occurring here. Rob, Hal, Randal, and Cameron have all read this book, a popular science fiction series for young adults. In line 4, LeAnn remarks that all the guys have read the book while she, the only girl in the group, has not. Those who have read the book are now positioned as an in-group of 'guys', of which Randal is a part. Rob and Hal play up the performance of an adolescent male group with phrases like 'alright cool' in line 3, and a fist pump in line 5. To take the performance up another notch, Rob comments that the character Artemis Fowl is 'so bad ass' in line 6, using a curse word which is technically prohibited for counselors in training to use around campers. He immediately follows his slip by turning to the facilitator and asking if this type of language is allowed. Rather than chastise Rob's loose language as might be done in more formal camp settings, she says 'its fine, speak away'. Since the group is well out of earshot of younger campers, it is unlikely that there will be any negative repercussions of allowing Rob to curse; he also shows evidence that he is sufficiently aware that cursing is the exception to the rule by asking if it is allowed in the first place. By permitting this minor breach of professional etiquette, the facilitator is allowing Rob to continue the initiation rites of male youth culture (Cameron, 1997) which are being enacted as a means to include the participant on the autism spectrum.

In order to maximize opportunities for successful exchanges, the facilitator can strategically adjust her conversational moves to match the preferences of the target participant. This kind of adaptation has previously been shown to increase social responsiveness in children with autism during mother-child interactions (Miersschaut, Roeyers, & Warreyn, 2011). In extract 4, Randal's group is trying to come up with an appropriate title for their story board. LeAnn and Rob (who are twin siblings) attempt to gather input from Randal on what he thinks the title should be. LeAnn is sitting next to Randal, and the other participants sit across the table.

#### Extract 4

1. LeAnn: <what should we name it?> we should take a vote (.) <what should we name it?> ((looking to Randal and leaning in close to him))
2. Rob: [no idea
3. Hal: [(?)
4. Cameron: [star camp shenanigans
5. LeAnn: I LIKE THAT (.) STAR CAMP and then we can put [shenanigans.
6. Rob: [you like star  
camp shenanigans= ((holding out a photo toward Randal and waving it up and down to the rhythm of his speech to indicate that is who he is talking to))
7. LeAnn: =do you like star camp shenanigans?
8. Randal: shyeah

LeAnn directs her first question, ‘what should we name it?’ to the group in general, and then repeats the question while looking at Randal and leaning close enough to him that her shoulder comes into contact with his. Rob, Hal, and Cameron each give input, but Randal’s contribution is noticeably absent, especially since LeAnn appears to be taking special care to secure his response. Rob then asks Randal if he likes the idea they’ve come up with in line 6 and gestures toward Randal by pointing at him with a photo and waving it up and down to the rhythm of his speech. LeAnn immediately repeats the question, looking in Randal’s direction in line 7. Finally in line 8, Randal gives a one-word, tentative affirmation of approval by saying ‘shyeah’. In extract 5 Randal makes a much more significant contribution to the story after the facilitator asks for a recap of a suggestion he made earlier that was not taken up at the time. This results in some negotiation of the story line between Randal and Rob:

Extract 5

1. Facilitator: what did Randal say earlier? this and -
2. Randal: um (.) [they see them getting away
3. Rob: [this
4. Randal:[(.) with a bucket (.) with the -
5. Rob: [with a bucket (.) wait there it is ((passes Randal a picture))
6. (2.0)
7. Randal: and then he could (.) catch them °gettin’ away (.) with the bucket° ((points to poster board))

The difference between the facilitator’s move to elicit participation from Randal and LeAnn and Rob’s efforts are readily apparent. First, the facilitator does not directly ask Randal but instead directs her question to the group. She only asks the question once, and doesn’t convey any urgency by speaking too rapidly. This perhaps decreases the pressure put on Randal to give a response. She also links his forthcoming response to a contribution made earlier, making it easier for him to formulate than the new idea for a title that LeAnn requests. In contrast, LeAnn and Rob’s questions are rapid and made repeatedly. Rob and LeAnn’s subsequent questions about whether or not Randal likes their idea for a title are in a simpler yes/no format, and are finally met with a response. Randal’s interaction style may give clues as to why the facilitator’s elicitation led to a more sustained interaction. Over the course of the five sessions, Randal came across as quite shy and reserved, and easily overwhelmed by too much stimulation. The overlaps and latching that occurs between Rob and LeAnn’s quick patterning of exchanges, and the demonstrative body language that they each use may point to their eagerness to elicit participation from Randal, but might also be overwhelming and undermine his ability to respond. Giving neutrally toned, indirect questions that do not require quick abstract thinking may have been better adapted to Randal’s particular needs in the context of this interactive sequence. It is important to keep in mind that interaction preferences are both individual and contextual; other participants who experience social disabilities might interact better with more persistent and rapidly paced bids for interaction (Ochs, Solomon, & Sterponi, 2005), and Randal himself may be more responsive to more direct modes of elicitation in other contexts (see extract 6 below for an example of this). The facilitator must be able to read both the target participant and the situation in order to determine how best to adapt her own communicative activity.

Lastly, the facilitator elicits and validates contributions from individuals with social disabilities, which encourages the typically developing peers in the group to ratify these contributions as an acceptable mode of participation (Bottema-Beutel, 2011). In extract 6, the

group is continuing the question and answer activity described above, and are answering the question ‘find which group member holds the record for sleeping in the latest’. Randal has not yet offered how late he has slept in, so the facilitator asks him directly if this is something he has done in line 1 to which he offers a response in line 3 (a contrast to the elicitation strategy described above, but one that works in this context).

Extract 6

1. Facilitator: [Randal do you sleep in at all?
2. LeAnn: [ (?)
3. Randal: huh no the latest I wake up is nine
4. Facilitator: nine a m?
5. LeAnn: creepy [bug ((moving bag of snacks and looking on the ground))
6. Hal: [dang
7. Rob: that’s pretty good (.) huh hh what time d’you go to bed?
8. (2.0)
9. Randal: at-at 10
10. Rob: that’s tight ((nodding head))
11. Hal: that’s a healthy way [to live

There are two additional points to be made regarding this segment. First, Randal is displaying an accurate monitoring of the conversation by *not* contributing, since he obviously does not hold the record for sleeping in the latest if he regularly wakes up before nine a.m. Second, Randal’s admission that he is in bed by 10 p.m. and rises before 9 a.m. is met with surprise and approval by both Hal and Rob. Rob expresses that Randal’s schedule is ‘pretty good’ in line 7, and ‘tight’ in line 10, while Hal adds that it is a ‘healthy way to live’ line 11. Even though Randal is contributing the opposite of what is called for in the prompt, the departure of his schedule from more representative adolescent sleep habits is seen as noteworthy and even something to be praised.

In a similar fashion to the way Hal and Rob take up Randal’s response in the segment described above, the facilitator can validate contributions that are not readily ratified by other group members. The following extract involves Sanjay and Aaron, both of whom are sixteen year-old males with Asperger syndrome. The group is discussing shows and performances that they have seen in the past.

Extract 7

1. Sanjay: °I like The Lion King I like The Lion King that’s one of my favorites°
2. Facilitator: the what?
3. Sanjay: The Lion King [ (?)
4. Facilitator: [the Lion King (.) yeah
5. Wayland: that was good I saw that
6. Facilitator: that show was pretty extravagant [its cool
7. Aaron: [yeah
8. Wayland: yeah
9. Facilitator: you guys have all seen it?
10. Wayland: [yeah

11. Aaron: [no:o  
 12. Wayland: I like the big (.) [whatever (?) [masks  
 13. Aaron: [°the movie but not the play° huh  
 14. Jarred: [°I've seen the movie°  
 15. Facilitator: I mean the movie itself was [pretty cool huh huh  
 huh  
 16. Wayland: [the play was cool  
 17. Aaron: huh yeah

Sanjay brings up the musical 'The Lion King' in line 1, but too quietly for the others to hear. The facilitator asks for him to repeat his utterance in line 2, and then confirms that it is a worthwhile musical with 'yeah' in line 4. Wayland and Aaron agree, and the facilitator elaborates on her positive evaluation of the show with 'extravagant' and 'cool'. Sanjay's experience is thus one that is validated by the group, and turns out to be an experience held in common.

In line 13, Aaron quietly reveals that he has only seen the animated movie and not the stage production that Sanjay, Wayland, and the facilitator are praising. He laughs after this statement as if to preemptively affirm that having watched a movie primarily marketed to children could be viewed as grounds for mockery. Jarred confirms that he has seen the movie as well, but does so in a way that is barely audible and does little to ratify Aaron's viewing of the movie as an appropriate admission for a sixteen year old male. The facilitator follows these comments by laughingly proclaiming that the movie itself was 'pretty cool' in line 15, which is met with more laughter and agreement from Aaron. Her move has two important aspects; it validates Aaron's experience of having seen 'The Lion King' movie as acceptable, and remains faithful to the atmosphere initiated by Aaron when he laughs after admitting to having seen the movie and not the play. The facilitator's lighthearted laughter suggests that 'The Lion King' is a guilty pleasure even for adults, who may not be the film's intended audience. Validating Aaron in this way maintains the authenticity of the interaction; it is conceivable that if the facilitator had more earnestly defended the movie as an adult drama, her attempts at validation would have lost credibility.

It should be noted that the above examples do not give evidence that the interactive accomplishment is solely the work of the facilitator, as there are contributions from each participant evidenced in the extracts provided as well as in the significant amount of data not analyzed. Rather, this section is meant only to explore how facilitator moves may have resulted in the facilitated assessments generally receiving higher scores than un-facilitated segments.

## **Discussion**

Drawing from research and methodology from psychology, applied linguistics, education, and sociology, this study offers a mixed methods examination of the achievement of intersubjectivity between teenagers with autism or autism symptomology and their typical peers in a social group intervention conducted in a summer camp context. Video data were objectively and quantitatively ranked according to the dimensions of affective engagement and flow of interaction. Analysis showed that participants with social difficulties made statistically significant gains after a treatment condition as compared to a control condition in their affective engagement and the flow of interaction, with large and medium effect sizes respectively. Both of these measures appear to be on a downward trend (although not statistically significant) in the absence of any intervention. Pair-wise comparisons of means across measurement contexts showed that gains only reach statistical significance in the condition where adult facilitation

occurs at the time of measurement in the post-assessment. Because there were no differences in scores in the facilitated and un-facilitated measurement contexts at the pre-assessment, the increase in scores cannot be said to be due to facilitation at a single time point alone, but rather facilitation at the time of measurement in addition to participation in the intervention as a whole.

Qualitative analysis illuminated in-context facilitation strategies that appeared to play an important role in sustaining engagement between participants. The facilitator adapted her interaction style to suit the target participant's preferred mode of interaction, filled in gaps to maintain a smoothly flowing interaction, ensured that all participants had a relevant role in the activity, allowed an authentic peer culture to emerge by loosening typical rules of conduct, and validated participant contributions. Importantly, these strategies are more about being perceptive to participant cues and tailoring support accordingly than any particular facilitative behavior. Likewise, it is just as important for the facilitator to step back and allow natural interactions to unfold as it is to step in and elicit participation.

This study shows that the affective groundwork for intersubjectivity can be fostered through intervention, even in older children. The developmental framework used here is that this foundation is what gives concepts derived from human interaction their meaning. The intervention did not involve any direct instruction of idealized behavior, but honored each participant's individuality and existing sense-making repertoires to promote engagement. It is of interest to note that the affective engagement score achieved a higher effect size than flow of interaction (.14 and .07, respectively). This may indicate that the establishment of affective engagement occurs prior to changes in the flow of interaction, which would be consistent with Hobson's proposal that affective processes have a primary role in social development. Conversely, it could also indicate that the intervention design was better suited to foster affective engagement than flow of interaction.

This study has several limitations that should be addressed. A small sample size of only 13 participants was considered in statistical analyses, primarily representing the higher end of the spectrum of ASD symptomology. Future studies should include larger populations that reflect a broader range of functioning. Additionally, subject diagnosis was not independently confirmed by the researcher, and was not restricted to a single social disability; therefore, claims cannot be made that the results are specific to children with ASD. However, since many educational and recreation settings that include children with special needs serve a variety of diagnoses, these findings are relevant to such settings that are looking for strategies to enhance interaction between teens with social difficulty and typically developing teens.

There were also some issues with data collection and analysis decisions that warrant consideration. First, each assessment involved a different activity, and these may have afforded different kinds of interaction. Repeating the same activity for each assessment has its own obvious drawbacks; the participants would have been confused about why they should do the same activity several times, and it would have become less enjoyable with fewer opportunities for positive interactions each time. Although assessment activities were designed to be approximately equivalent in terms of interaction potential, this cannot be stated with any certainty. Secondly, qualitative analysis was limited to the data that was also analyzed quantitatively, which is only a portion of the collected data (15 minutes out of approximately 5 ½ hours for each of the 8 groups, or 2 hours out of a total of 44 hours). Further study into this data can give more insight into the facilitation process and the nuances of interaction.

Lastly, the assessment contexts were all within the social group setting and did not assess generalization to other settings and with other peers. Questions about the generalizability of

effects should be formulated carefully. Because this intervention is not formatted to foster ‘skills’ that are carried within the individual from one situation to the next, generalization of skills as traditionally measured may not be appropriate. However, when individuals acquire a stock of positive social experiences from which to draw, this may open up opportunities for interaction that may not have been possible prior to the intervention. Also, the typical peers that were involved in this study received as much intervention time as the target participants, and this may be required for positive interactions to occur. Although this intervention was a short-term arrangement, this was primarily due to the structure of the summer camp, which ran in two-week sessions. The intervention may be more usefully thought of as an ongoing way of adapting whatever social environment adolescents with autism and their typically developing peers find themselves in.

## Chapter 2: The interactional construction of identity: An adolescent with autism in interaction with peers

This study explores the construction of identity in an adolescent male with an autism spectrum disorder (ASD), referred to as Randal, as he participates in a small group intervention designed to promote social interaction with peers. ASD is a developmental syndrome defined by differences in social interaction, communication, and behavior (American Psychiatric Association, 2004). These differences range from mild to profound, and can be accompanied by varying degrees of intellectual functioning. In adolescence, peer rejection and exclusion based on these differences increases (Chamberlain, Kasari, & Rotheram-Fuller, 2007; Orsmond, Krauss, & Seltzer, 2004; Shea & Mesibov, 2005; Symes & Humphrey, 2010). Research shows that despite expressing feelings of being unsuccessful in attempts to form friendships and interact with others, adolescents with ASD do desire peer relationships (Bauminger & Kasari, 2000; Müller, Schuler, & Yates, 2008). Because of these difficulties, one might think that the process of constructing identity, which is a decidedly social process, would be a challenge for these individuals (Bagatell, 2007; Sacks, 1995) or that they would develop into what philosopher Ian Hacking calls ‘thin’ personalities with a perceived lack of dimensionality (Hacking, 2009). This study aims to show that this is not the case, and will illustrate how even Randal’s non-action in social contexts are an active contribution to a rich and dimensional identity within his peer group. Fundamental to the position pursued in this paper is that identity is not an individual construction stemming from an individual mind, socially directed or otherwise, but a transactional process constructed in social contexts. Drawing from existing literature that employs interactional research methods to explore children and adults with ASD (Bottema-Beutel, 2011; Dobbins, Perkins, & Boucher, 1998; 2003; Fasulo & Fiore, 2007; Local & Wootton, 2005; Muskett, Perkins, Clegg, & Body, 2010; Ochs, 2002; Ochs, Kremer-Sadlik, Sirota & Solomon, 2004; Ochs & Solomon, 2010; Ochs, Solomon, & Sterponi, 2005; Solomon, 2004; Stribling, Rae, & Dickerson, 2008; Steigler, 2007; Sterponi, 2004; Sterponi & Fasulo, 2010; Wootton, 1999), this study will describe the construction of Randal’s identity as a group member, along with the interactional qualities that contribute to its formation.

While there are currently very valuable ethnographic and autobiographical works that explicate how individuals with autism view and form their personal identity (Bagatell, 2007; Hacking, 2009; Grandin, 1986; 1995; Mukhopadhyay, 2008; Nazeer, 2006; Tammet, 2006; Williams, 1992), this study will use a decidedly different framework of identity laid out by Bucholtz and Hall (2005), who synthesize a wide breadth of research and theory from sociolinguistics, linguistic anthropology, discourse analysis, and social psychology in order to formulate their thesis. They define identity as a “relational and sociocultural phenomenon that emerges and circulates in local discourse contexts of interaction rather than as a stable structure located primarily in the individual psyche or in fixed social categories” (pp.585-586). The authors cite five principles on which they conceptualize identity; emergence, positionality, indexicality, relationality, and partialness. These concepts are defined below, and will be referred to throughout the analysis.

**Emergence:** Identity is a socio-cultural phenomenon that is produced from, rather than the material for, linguistic and other semiotic practices.

**Positionality:** Identities are made up of embedded categories including not just macro-level demographics, but also local cultural positions, stances, and participant roles.

**Indexicality:** Identity relations emerge in interaction through direct reference to categories and labels, the implications and presuppositions regarding one's own or others' identity positions, evaluations and orientations to ongoing talk, and through the use of language systems that are ideologically tied to specific groups.

**Relationality:** Identities acquire meaning through several mutually constitutive relationships between identity positions. This includes the widely used concept of similarity/difference, and the lesser used concepts of genuineness/artificiality and authority/delegitimacy, among others.

**Partialness:** Any given construction of identity is only a partial account. Additionally, multiple processes go into its construction that play partial roles when considered individually. For example, identity may be in part deliberately put forth and in part unintentional and below the level of consciousness; in part an outcome of interactional negotiation and in part an outcome of others' perceptions and representations; and in part an effect of larger ideological processes and material structures that may become relevant to interaction.

These principles offer conceptual ground on which to frame the analysis of talk produced by five teenagers during six encounters organized by the author at a summer camp. These encounters were arranged in order to study the efficacy of a social intervention designed to promote interaction between adolescents with ASD and their typically developing peers. The program was adapted from the Integrated Play Groups model (Wolfberg, 2003; 2009; Wolfberg & Schuler, 1993), a peer play intervention designed for younger children that pays special attention to the organic development of peer culture that differs from the adult world (Corsaro & Eder, 1990). Efficacy results for this intervention will be reported elsewhere (Bottema-Beutel, in preparation).

## Methods

### Subjects and Setting

Participants were recruited from a summer camp coordinated through the recreation sports division of a large University in the western United States. The camp serves elementary-age students, and offers sports and leisure activities such as soccer, softball, and chess. The camp also offers leadership training programs for adolescents aged 12-18. These programs are divided into three levels, determined by the enrollee's age, past experience at camp, and leadership ability. In ascending order, these levels include Campers in Leadership Training (CILTs), Counselors in Training (CITs), and Junior Counselors (JCs).

Embedded within the leadership training program is a social skills track designed for adolescents who experience significant social difficulty. Many of these students have a diagnosis on the autism spectrum, and all receive special education services with specific goals to remediate social skills deficits. Individuals enrolled in the social skills track receive staff support in job training, social skills instruction, and coaching while performing camp job responsibilities. Tasks are individualized for each participant, but a prototypical daily schedule might consist of helping to set up camp, assisting with group camper instruction, job skills class, lunch, additional camper instruction, and ending with assisting in cleaning up camp materials for the day.

While participants in this program were required to interact with adult camp counselors as they assisted in camper instruction, their interaction with peers in the leaders in training program who were not also enrolled in the social skills track remained minimal. This was



especially evident during lunch period, as the two groups ate in separate spaces of the camp. The camp does not explicitly disclose which leaders in training participants are enrolled in the social skills track; every effort is made to maintain confidentiality that these individuals receive special education or camp staff support. During a given two-week camp session, there were 10-15 teens enrolled in the social skills track, and approximately 25 teens enroll over the course of the entire summer.

For the larger project, a total of 15 adolescents with either an ASD diagnosis or documented ASD symptomology without a formal ASD diagnosis (i.e., showed evidence of DSM-IV criteria of impairments in social interaction, communication, and behavior) were divided into eight social groups. Camp staff members screen applicants to the social skills track program to ensure that they are in need of social supports, and that they do not engage in self injurious or aggressive behavior. The screening process involves candidate and parent interviews, as well as reviews of Individualized Education Plans (IEPs) and psychological assessment data. A total of 24 typically developing adolescents (i.e., were not eligible for special education services and were not enrolled in the social skills track) were also recruited to participate; three typically developing participants were assigned to each of the eight social groups.

For this portion of the study, one social group was chosen for in-depth analysis. This group consisted of three typically developing teenagers; Hal<sup>2</sup>, a 17 year old male; Rob, a 15 year-old male; and LeAnn, a 15 year-old female and Rob's twin sister. All three typically developing participants were Junior Counselors (JCs), the highest tier of the Leaders in Training Program. Two social skills track enrollees also participated; Cameron, a 17 year old male, and Randal, a 16 year old male. Social skills track enrollees can advance as high as Counselor-in-Training (CIT) status, but not beyond; both Randal and Cameron were considered CITs.

The social skills track participants were given a questionnaire to determine their social profile and preferences, and ensure that their social group placement reflected their individual characteristics and that they were well-matched with the other group members. According to Cameron's mother, he had been diagnosed as having mild auditory processing delay as a child. Cameron reported that he socialized with peers his age daily, mostly at school, and preferred socializing in small groups of three to five people. He enjoyed sports, video games, and reading. He looked forward to making friends at camp, and was also hoping to gain work experience. Although Cameron was technically enrolled in the social skills track, he only received a minimum degree of extra support, including occasional check-ins from staff. Rather than moving from one activity to the next as the other social skills track enrollees did, Cameron remained in the archery area, as he was one of three staff members employed at the camp with significant expertise in archery, and spent his entire day coaching campers in this skill. He was also one of only two social skills track participants who regularly ate lunch with Leaders in Training who were not in the social skills track.

Cameron was an exception in this regard, and was a stark contrast to Randal, who was diagnosed with autism and received full staff support. Randal was quiet, and kept to himself even more so than the other teens enrolled in the social skills track. He ate his lunch in the general proximity of other social skills track members, but would usually read a book by himself instead of playing games with the others. Occasionally, he would demonstrate a magic trick when significantly prompted by staff. According to self-report, Randal almost never socialized with

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<sup>2</sup> All names are pseudonyms

peers his own age, preferred to be around one or two other people, preferred board games to more physical activities, played on the computer and read books during his spare time, and did hope to make friends while at camp (it was interesting to note that Randal originally answered this questionnaire item with 'no', but then crossed it out and answered in the affirmative).

### **Data Collection and Analysis.**

This study utilizes discourse analytic methodology combined with participant observation to determine how the identity of the participant with autism was projected through interaction (Erickson, 1996; Forman & McCormick, 1995; Goodwin, 2002; Solomon, 2004). The lead researcher attended each social group session, and spent 4-8 hours per day for the extent of the summer camp season observing and interacting with participants and camp staff. Social group sessions were video recorded using a handheld Sony camera mounted on a tripod and arranged to capture as much of the group as possible while not getting in the way. For the larger project, video data of each social group meeting was collected for each of the eight social groups, which culminated in approximately 43 hours of video recordings. For this portion of the analysis, one social group was chosen to study in-depth.

Conversation analytic methods were used to formulate an interpretation of the participant's own orientation to talk as it proceeds sequentially in interaction (Hutchby & Woofit, 1998; Sacks, Schegloff, & Jefferson, 1974; ten Have, 2007). Five and a half hours of video recordings were reviewed and roughly transcribed; approximately one-third of these rough transcripts were chosen for more extensive and detailed transcription using conventions described in ten Have (2007). Weekly meetings between the author and a research assistant who aided in data transcription were conducted in order to offer interpretations of the data. From this larger data set, extracts were chosen that illustrated the nature of Randal's identity, as well as how the participants went about its construction. The researcher then searched through the data to find counter-examples of phenomena related to identity construction which enabled further exploration of what precisely was being achieved in interaction and how the participants achieved it. Once a collection of extracts was chosen, the researcher focused on the following steps for analysis recommended by Schegloff (1996, cited in Ten Have, 2007: 121):

1. A formulation of what action or actions are being accomplished
2. A grounding of this formulation in the "reality" of the participants
3. An explication of how a particular practice, i.e. an utterance or conduct, can yield a particular, recognizable action

### **Intervention Context**

Social groups were presented to participants as a teambuilding workshop, and at the camp's request there was no mention either before or during the session that social skills track participants were also involved in the workshop. Sessions lasted 60 minutes, with the exception of the first session which lasted a half an hour. After the first session and a one week control phase with no meetings, sessions and occurred every week day during a one-week period for a total of five sessions. All social group sessions took place at camp headquarters in one of two designated spaces; an indoor space for cold or rainy weather, and an outdoor space for sunny weather and activities that required ample room.

A camp volunteer was trained by the lead researcher to facilitate the group, while the lead researcher acted as an assistant and camera operator. Facilitator training included approximately

8 hours of 1:1 meetings with the researcher, involving an overview of facilitation strategies, an in-depth discussion of the rationale for the intervention design, and a review of videos from previously conducted groups. A fidelity checklist was created and implemented before, during, and after the intervention took place to ensure that each group facilitator is appropriately trained, and to prevent ‘drift’ from intervention procedures (Gersten, Baker, & Lloyd, 2000). Facilitator strategies have been field tested by the researcher over the course of two formal pilot studies conducted during a two-year period, and are described in detail elsewhere (Bottema, 2009; Bottema-Beutel, 2011). In general, facilitation strategies include guiding social interaction by pointing out interests and commonalities, encouraging dialogue about accepting and appreciating individual differences, interpreting idiosyncrasies of individuals on the spectrum that may otherwise cause confusion, adapting activities to reflect everyone’s interest and to include a role for each participant, and encouraging ‘buy-in’ from the group members to promote an authentic peer culture (Koegel, Werner, Vismara, & Koegel, 2005; Wolfberg, McCracken & Tuchel, 2008; Wolfberg & Schuler, 2006). Sessions followed a standard curriculum, but the facilitator was encouraged to adapt activities and discussion points according to group interests and preferences (see appendix B for curriculum sample). Each session began with a brief introduction of the day’s activities by the facilitator, followed by personal updates from group members, a participant-led ice breaker, a team-building activity, and ended with a debriefing discussion.

### **Findings**

Randal’s identity begins as a non-participant, and eventually emerges as a mysterious ‘master’ who is particularly adept at camp activities and exhibits a singular focus on the task at hand. The data presented illustrate that the construction of Randal’s identity stems from his particular interaction style, often consistent with his diagnosis on the autism spectrum. In light of Randal’s peculiar interaction style, the other group members act to try and make sense out of his behavior, and do so in a way that positions Randal as a positive force in the group. Randal’s positioning is interesting, since he is characterized by a quiet aloofness that might be expected to result in a peripheral status (Lave & Wenger, 1991) rather than a central one. In order to convey how Randal’s identity unfolds and is transformed over the course of the workshop, the extracts in the first section are ordered temporally rather than conceptually. In the second section, the extracts will be ordered according to the findings that they describe.

#### **A Description of Randal’s Emergent Identity**

In the beginning sessions, Randal is minimally engaged with the other group members and offers very little to the group activities. He gives only sparse input during these first meetings, as his only contributions are occasional head nods and one-word responses to direct questions. Although Randal technically occupies a similar trainee position at the camp and wears an identical camp uniform, his status and positioning is markedly different than that of his peers. He is not treated as a trusted source of knowledge about the activity at hand, or even about himself. Additionally, the other group members show a light ease in interacting with each other, and fluidly toss out jokes and sarcastic remarks. With Randal, however, sarcasm and in-jokes are rarely used without a retraction or explanation to ensure that Randal gets the joke and won’t be offended. These phenomena are illustrated in the following examples.

In extract 1, taken from the first meeting, the group is engaged in an activity where they must determine where at camp an array of pictures have been taken. Two laminated pages with eight photographs each have been given to the participants. The photographs are taken in such a

way as to make it difficult to determine the location of the pictures; they are either extreme close-ups, images of only part of an object, or are of lesser known sites around the camp grounds. Hal is seated at the table across from Randal, and is attempting to determine the identity of the pictures while holding the page in between himself and Randal so that they can both see it clearly. The other three group members are looking at the second picture page and discussing what each picture might be. Randal provides almost no input despite Hal's best efforts to engage him, and Hal eventually gives up trying to work with Randal. Hal demonstrates discontinuation of working with Randal by pivoting his body to face the other three group members, bringing the page of pictures along with him so that it is no longer in Randal's direct view.

Extract 1

1. Hal: I [know I've seen this one before ((speaking to Randal, points on page))
2. LeAnn: [stairs up to pool or down to pool?
3. Randal: ((nods, looking down where Hal is pointing))
- ...
4. Hal: I'm not sure (.) Rob ((looking at page of pictures))
5. Rob: yeah
6. Hal: these two (.) need to be identified ((moves page away from Randal to the space in front of Rob and LeAnn))

Goodwin (2000) talks about *contextual configurations*, which he defines as an array of semiotic fields that are oriented to by participants in interaction. These can include the stream of speech, the body, materials in the surround, activity systems, and the sequential organization of talk. During an interaction, new semiotic fields can become relevant while others cease to be significant. This is similar to Klin et al.'s (2003) concept of a *topology of salience* which is used to describe the multiple and wide-ranging stimuli in the social world that take on varying degrees of importance over the course of interaction. Klin and colleagues' research shows that individuals with autism often have difficulty attuning to what is salient in the social environment and can become fixated on objects that have no social significance. Although Randal is looking to where the others are looking (e.g., at the picture page), he is not doing what the others do and offering guesses as to what the pictures are. In this case, it is not necessarily *what* to orient to that Randal appears to have difficulty with, but *how* to conduct himself in a way consistent with what the others are doing. For Randal, and also for Hal who is trying to interact with Randal, coordinating their actions with each other within this activity framework is the more difficult task. According to Goodwin,

The accomplishment of social action requires that not only the party producing an action, but also that others present, such as its addressee, be able to systematically recognize the shape and character of what is occurring. Without this it would be impossible for separate parties to recognize in common not only what is happening at the moment, but more crucially, what range of events are being projected as relevant nexts, such that an addressee can build not just another independent action, but instead a relevant coordinated next move to what someone else has just done (p. 1491).

In effect, Hal's social action is incomplete because Randal does not show that he recognizes what Hal is projecting as the relevant next move; offering a guess as to what's in the pictures.

For Hal's part, he is using the semiotic medium of the picture page and the space around the table to legitimate, and eventually de-legitimate, Randal's participation in the task.

Another useful concept is Goffman's (1963) *involvement idiom*, which he defines as the obligatory, bodily display of involvement within situated activities. Different social situations call for different degrees and types of involvement, and a single social scenario may require that involvement be allocated to several ongoing activities. The central activity is the 'main involvement', while peripheral activities are referred to as 'side involvements'. After several minutes of trying to elicit Randal's input, and only achieving a 'yeah' in line 5, it is apparent that Randal is not showing the degree of involvement in the task that the situation warrants. The feeling that this sort of situation can create in the interaction partner is described by Goffman:

When an incident occurs and spontaneous involvement is threatened, then reality is threatened. Unless the disturbance is checked, unless the interactants regain their proper involvement, the illusion of reality will be shattered, the minute social system that is brought into being with each encounter will be disorganized, and the participants will feel unruly, unreal, and anomic (Goffman, 1957: 59).

Thus, Hal must extricate himself from the interaction and move on to more obliging interaction partners in order to avoid feeling alienated from interaction and to allow the situation to continue as it should.

During session 2, the group is engaged in a variation of a scavenger hunt where they are given a list of questions designed to promote discussion about the participant's personal lives. In the following segment, the group is responding to the question 'find out which group member has been to the most live shows or performances'.

Extract 2

1. Amy: Randal have you been to a live show before?
2. Rob: °the slings and arrows°
3. Randal: no
4. LeAnn: never?
5. Randal: wait yeah (?)
6. All: ((laugh))
7. Amy: what'd he say? ((to Kristen))
8. Kristen: he-he said he has (.) what show did- have you been to?
9. (3.0)
10. Hal: like a school play
11. (1.0)
12. Randal: yeah
13. Hal: really?
14. Randal: yeah I have been to:o (1.0) once to a school play no actually two times
15. Rob: that's tight (1.0) which ones do ya know?
16. (3.0)
17. Randal: yeah one was called (3.0) (?) the other one (1.0) I forgot

Prior to this sequence, the group was discussing a Shakespeare festival (hence Rob's recitation of a famous line from Romeo and Juliet). Randal offers an answer to Amy's question

in line 3, but he reverses his answer in line 5, after LeAnn responds with an incredulous ‘never?’ in line 4, calling into question the assertion that Randal has gone through life without ever seeing a live performance. Amy apparently has not heard Randal’s answer, and asks Kristen for clarification of Randal’s reply in line 7. Amy chooses not to ask Randal himself for clarification, and it can be argued that directing the question to Kristen might be indicative of a lack of trust in Randal’s ability to give clarifications on his own experiences. Amy is essentially taking a stance on who is an appropriate source of knowledge, and is positioning Randal as unreliable; this has been shown previously in the literature to occur in interactions between non-disabled individuals and those with ASD (Ochs, 2002; note that Amy, as the facilitator, is aware of Randal’s disability status). The three second pause after Kristen’s redirection of the question back to Randal gives Hal an opportunity to guess what type of shows Randal has seen; he asks if he has seen school plays. Randal answers in the affirmative, but does not offer any more specific information, prompting Rob to request the names of the plays that Randal has seen. However, Rob appends his question with ‘do ya know’ suggesting again that Randal may not be aware of these details of his experience. This turns out to be partially incorrect; Randal gives the name of one of the two plays he has seen (although it cannot be heard on the video), and cannot recall the name of the other. However, there is a difference between not knowing and not remembering, and Randal is not completely complicit in structuring his identity simply as someone with an inadequate knowledge base. Instead, it could be interpreted that the name of the play simply was not important enough to have maintained a place in his memory.

In session three, the group is involved in an activity where four of the five group members are blindfolded and each blindfolded participant holds a rope that is tied to a bucket containing three small whiffle balls. The fifth group member who is not blindfolded must lead the other four through a maze of strategically placed traffic cones until they reach a circle marked on the ground with a piece of rope. Once they reach this point, they must figure out a way to get the balls out of the bucket and into the circle, without removing their blindfold or directly touching the bucket. The participant who is not blindfolded can only interact with the others verbally, and is not allowed to touch the participants or any of the materials. If a blindfolded participant knocks over a cone, the group must go back to the beginning and start over. Two group members took turns acting as the un-blindfolded leader; first LeAnn and then Randal.

During LeAnn’s turn as group leader, the group members are trying to orient themselves to moving around while blindfold, and spend a considerable amount of time knocking into each other and the cones dotted along the path to the circle. During this period, it becomes clear that Randal is seen as someone who is not an acceptable target for sarcasm or the light, comedic banter that characterizes the rest of the group members’ interactions with each other. In extract 3a, Hal has just knocked over a cone, and jokingly accuses Randal of having done it. However, he retracts the joke in line 6, apparently changing his mind that he can successfully perform the joke of making Randal the scapegoat for his error. Extracts 3b through 3d show contrasts in Rob’s demeanor when he bumps into Cameron and Hal while blindfolded, to when he bumps into Randal. Cameron and Hal both get a colloquial and friendly ‘sup’, indexical of urban youth culture, while Randal gets a much more formal apology in extract 3d.

Extract 3a

1. Cameron: Who did it?
2. Hal: [It was-
3. LeAnn: [Kay come ba:ck! ((jogs back, arms flopping))

4. Hal: It was [RANDAL
5. Rob: [Just like, run backwards, [just like-
6. Hal: [I'm just kidding (it was me)>, I don't even kno:w-

Extract 3b

1. ((Rob bumps into Cameron))
2. Cameron: Woah
3. Rob: ↑Sup Cameron ((laughs))
4. LeAnn: ((laughs))

Extract 3c

1. Rob: ((bumps into Hal)) oh hey wussup
2. Hall: sup man ((reaches out and pats Rob))

Extract 3d

1. Rob: who's this? ((touching Randal)) oh heh sorry Randal

Because LeAnn and Randal essentially perform the same activity, there is a unique opportunity to contrast Randal's positioning during the activity with LeAnn's as they both inhabit the same general role in successive turns. When Randal takes the lead during this activity, his new role as group leader enables him to enter a positional category that stands in juxtaposition to his previous status as a peripheral participant. What's more, Randal not only takes a leadership role in the activity, but successfully completes the task, giving the other group members a first glimpse of his knack for problem solving. Prior to Randal's success, LeAnn tries to lead the group through the maze, but is not able to devise a way to guide the others in getting the balls into the circle. By the time Randal takes his turn, the group knows full well how difficult the task is.

In line 3 of extract 4, Hal refers to Randal as 'a master' for having gotten the group through the cone maze with seemingly minimal effort. This is an overt indexical reference that begins the process of positioning Randal as a mysterious and quiet character who is also highly competent and focused. The indexical reference is reminiscent of popular cultural characters such as the 'Jedi master' in the Star Wars movie series, and other young adult fantasy works of fiction and film. It is also in some sense consistent with the socially aloof phenotype of autism described by Wing and Gould (1979), used to characterize children who are seemingly indifferent to social situations. However, in the illustrations shown here, the indifference has been transformed to have an edge of 'coolness' that makes Randal a more admirable companion than Wing and Gould's illustration would suggest.

Extract 4

1. Cameron: wait (.) [how did we just miss all the cones?
2. Randal: [to your right
3. Hal: [Randal's a master
4. Randal: [(?)
5. Cameron: yeah [he's really [(?) side by side
6. Randal: [walk
7. LeAnn: [RANDAL YOU'RE SO:O great

In line 7 of this extract, LeAnn gives Randal enthusiastic praise in his ability to lead the group through the maze of cones. Her enthusiasm is perhaps somewhat artificial as she tamps down the volume on the word ‘great’ and trails off at the end of her utterance. This is perhaps the other side of the coin of Randal’s positioning. The complementary relation of Randal’s elevated status is that it carries a tinge of overstatement and perhaps ‘poking fun’ at Randal. I would not suggest that LeAnn’s praise is altogether insincere, but perhaps the hyperbole comes from surprise at Randal’s competence in light of his previous non-participation. Once the group has completed the task, Both LeAnn and Hal offer more measured and perhaps more genuine praise. In extract 5, LeAnn comments that Randal’s idea is ‘smart’ (line 6), while Hal offers the more colloquial assessment that Randal’s tactics are ‘tight’ (line 11).

Extract 5

1. Amy: Randal will y-will you tell them what you guys did?
2. Kristen: yeah actually he should show em
3. Rob: I think I figured out whatcha did you just got (?) and pull down right
4. Amy: yeah
5. Randal: well I did like this and um (.) Rob was holding it here (.) and LeAnn here (1.0) and LeAnn (?) so then needed LeAnn to go back on the other side in order to (?)
6. LeAnn: OH THAT IS SMART
7. Kristen: just pull it over-
8. Amy: -yeah
9. Kristen: so then (.) it pops out
10. Amy: nice work
11. Hal: that’s tight
12. Amy: nobody’s ever thought about that (.) and you guys are the last group to do this
13. LeAnn: °yeah:h° WE’RE ALWAYS THE SMARTEST GROUP
14. Amy: HA HA HA (.)the masters

After Amy notes that they are the only group thus far to complete the task, LeAnn follows with the enthusiastic comment that ‘we’re always the smartest group’ in line 13, transferring Randal’s success into whole-group success, of which Randal is a part. Amy then follows by referring to the entire group as ‘the masters’ in line 14, rather than to Randal as the lone, solitary master.

In session 4, the group members are challenged to construct a free-standing bridge that can support a full bottle of water using only newspaper and masking tape. Randal proves to be especially adept at tightly rolling the newspaper into strong rod-shaped pieces that can act as support beams for the bridge.

Extract 6

1. Rob: we just need a heck of a lot [more of the:ese ((holding tightly rolled pieces of news paper rolled by Randal))
2. LeAnn: [so we need four of these (.) with the bases=
3. Rob:=Randal’s gotta show me how does that because I’m like (.) [baffled by how he does it
4. Hal: [R:RANDAL ((trilling the R)) <how do we do it>
5. LeAnn: ha



6. Rob: like I [seriously tried rolling them tight (.) and it did not work
7. Randal: [(?) ((appears to be giving instruction to LeAnn))
8. Hal: Ran[dal's the master of camp activities
9. Rob: [all the leaves are brow:wn (.) and the sky is gray ((singing))
10. LeAnn: uh ha ha
11. Hal: Randal [will you show me how to do it?
12. Cameron: [how do you know how to roll things so [well?
13. Randal: [(°I don't know°)
14. LeAnn: [I'm not rolling I'll just tape things
15. Hal: [how do you roll it- (1.0) tight (.) and strong (.) and (.) durable

Randal is now not just the mysterious master, but according to Hal in line 8 of extract 6, he is the 'master of all camp activities'. Randal's expertise is something immediately and locally relevant to the group members, and also to the larger social landscape of summer camp in which they are embedded. Hal, who unlike LeAnn does not lavish praise at every opportunity, appears genuinely impressed with Randal's ability. Just prior to this extract, both Hal and Rob attempted to roll a support beam out of newspaper themselves, and end up with a product that pales in comparison to Randal's. In line 15, Hal offers three emphatic adjectives to describe Randal's work; tight, strong, and durable, all relevant to the bridge construction project in which they are engaged.

Several seconds later, extract 7 shows Hal continuing to try to glean information from Randal on how he manages to roll the newspaper, with no response. LeAnn finally comments in line 3, 'teach us your ways' playing up the mysterious master characterization that has begun to typify Randal's identity and again employing indexical language to do so. In extract 8, Hal suggests that only Randal is competent enough at making the support beams, and the others should find another way to contribute to the activity. Rob agrees that this is good idea in line two, and Hal repeats in line five that no one has been able to figure out how to roll the newspaper as well as Randal. Randal looks on and smiles, but otherwise continues to 'play it cool'. This is the only indication he gives that he is aware that his efforts are being lauded by the others. Because Randal does not articulate how he does the things he does, and appears to do it effortlessly and without any self-praise, his abilities take on a sort of occult status.

#### Extract 7

1. Hal: Randal how do you roll [so (round) ((looking toward Randal's workspace as he attempts to roll newspaper))
2. Rob: [kay this is gonna be a side column [so don't put anything on this
3. LeAnn: [teach us your ↓WAYS

#### Extract 8

1. Hal: I say how bout this (.) we only have Randal roll and we like [do something else
2. Rob: [there you go [there you go that's- (that's really good)
3. Hal: [I can't do it=

4. LeAnn: =POOR RANDAL'S FINGERS Randal are your fingers [(?)
5. Hal: [I can't do it  
I don't know how Randal does it I'm amazed no one's looks as good as his ((Randal smiles, visibly pleased with the praise))

In line four of extract 8, LeAnn adds another dimension to Randal's identity, as someone who should be protected. At the prospect of Randal spending all of his time rolling newspaper, she laments 'Poor Randal's fingers'. 'Poor Randal' is in stark juxtaposition to 'Randal the master', and this clearly illustrates Buckholtz and Hall's concept of partialness. Randal is only partially a competent master; he is also someone who's fragility (in this case his fingers are perhaps too fragile for the repetition of rolling all of the support beams that the group will need) should be taken into consideration.

In the final session, the group is given pictures of themselves doing the workshop activities that they've been participating in over the course of the week, and they are asked to construct a story board out of these pictures by pasting them onto a poster board in whichever order they choose and writing in captions to narrate the story. Interestingly, Randal features as the hero in the story as shown in extracts 9a through 9c, the 'leader of the blindfolded bandits'.

Extract 9a

1. Rob: and then this is this is our leader telling us what to do (2.0)  
kay? ((indicates photo of Randal, and looks toward Randal for approval))
2. Randal: ((smiles while looking down at photos))

...

Extract 9b

1. Cameron: so that we can give it to the master ninja
2. Rob: ((points to picture, uses gravelly voice)) master ninja:a
3. Hal: I thought Randal was the master ninja
4. Rob: no Randal's the master blindfolded bandit=

...

Extract 9c

1. LeAnn: =blind the blindfolded ba- bandits [and their leader
2. Cameron: [ (?) ooh
3. (3.0)
4. Rob: ((deep, gravelly voice)) ↓and our leader (.) Randal (.) the master warrior

In line 2 of extract 9b, Cameron introduces a 'master ninja' character into the story line. A ninja characterization would seem especially apt for Randal, as ninjas feature prominently in American youth culture, and often have exaggerated abilities and a dark and mysterious persona. Individuals with autism have been portrayed somewhat similarly in popular culture, such as in the movie *Rain Man* (Johnson & Levinson, 1988) and other exoticising media (Sarret, 2011). However, Rob rejects Cameron's assertion that Randal is the Master Ninja, and instead maintains that Randal's role is the leader of the blindfolded bandits. This seems to have important symbolism, as Rob is essentially determining that Randal no longer has the status of the solitary master, but is now the leader of a group; their group.

The materials that the group members have at their disposal in this activity clearly play a role in the transformation of Randal into a bona fide group member (Goodwin, 2000). Since the

majority of the photos are of the group doing group activities, there are no photos of Randal by himself that could serve to illustrate a lone master. Instead, the group must work with materials where Randal is part of the group, and is involved in the same goal-directed activity. In the photos of the bucket activity, Randal is wearing a blindfold just like the other group members, and has a camp T-shirt that is the required staff uniform and is similar to what the other participants are wearing. These materials likely serve to bridge the gap between Randal's singular status and his induction as a member of the group.

In the beginning sessions, Randal's absence of input appears to be the most significant factor in how the other group members structure their interactions around him. Although he very seldom offers spontaneous input in the first few sessions, his gaze is almost always focused on the materials that are pertinent to the group activity. This is the case in extract 1, where Hal tacitly tries to work with Randal by offering up general comments on the activity and positing the materials in between himself and Randal. Since Randal is looking at the photo pages, Hal is given reason to believe that he is aware of the amount of attention that the situation calls for, and is acting accordingly, suggesting that he might eventually participate. This however is not the case. By the last session, this expectation has changed, and Randal's lack of input is met with a clear demand from other group members who express that he should, and probably is able, to give input:

Extract 10a

1. Rob: let's hear your in[put Randal
  2. Amy: [yes
  3. Randal: (to what?)
  4. Rob: ((looks at Randal, raises eyebrows up and down rapidly)) the story
  5. Hal: [yeah what do you think of our story
  6. LeAnne: [yeah wha- we need your help
  7. (3.0)
- ...

Rob, Amy, Hal, and LeAnn all attempt to elicit Randal's input about the story. In line 7, the others wait expectantly for his contribution, but are met only with silence. In extract 10b, occurring only a few minutes after 10a, LeAnn again elicits help from Randal, and this time gets a contribution in line 4. Randal offers a progression for the storyline that they are creating, and uses LeAnn's partially completed construction of 'Jill' who is the camp director, to formulate 'Jill discovered that the trophy is gone'. This activity is clearly the most difficult for Randal as it has nothing to do with problem solving, and everything to do with creativity and narrative which are often especially difficult for individuals with ASD (Losh & Capps, 2003). A few minutes later, in extract 10c, Randal makes a contribution that is perhaps most illustrative of his identity as a group member; he makes fun of Rob using the same kind of pseudo-insult that Rob himself regularly employs. This kind of talk is part of a system of 'youth talk', and being fluent in it can mark one's inclusion in a peer culture (Kyratzis, 2004). In line 11, he holds a picture of Rob making a funny face, and suggests that Rob's face scared the bandits away. Rob clearly approves of this joke, as he replies with 'yes' and 'it does scare them away'.

Extract 10b

1. LeAnn: so ji-<what should I say> Jill (2.0) ((looks to Randal)) °I need help° ((breathy, exasperated)) (2.0) what should we [say
2. Rob: [↑she needs help↑
3. Cameron: orders that [the bandits
4. Randal: [Jill discovered that (.) the trophy is gone
5. Rob: °↓yeah:h°

...

Extract 10c

1. Amy: what's the next storyline? (?)
2. LeAnn: I dunno huh
3. Amy: oh
4. LeAnn: this is all we have ha ha
5. Randal: [we could say that then they saw them getting away with it in a bucket
6. Cameron: [(we're being chased)
7. LeAnn: hyeah (.) yeah that's good
8. Amy: the what?
9. LeAnn: the bucket
10. Cameron: or-
11. Randal: and then we could say that Rob's face [scared them away ((holding picture of Rob making a face))
12. Cameron: [or we construct a bridge -
13. Rob: yes
14. Kristen: HA HA HA [HA
15. Rob: [(it does scare them away)

Throughout the progression of the workshop, we see Randal emerge first as a non-entity who is not trusted to communicate knowledge about the camp or even his own experiences, into a mysterious master who travels alone and finally into the leader of the group. There is some dimensionality to Randal's persona, and his uncanny competence at camp activities is not the only facet of his identity. His ability to remain focused on the task and not engage in side-involvements can be at the expense of interpersonal sharing and interaction. Even during the final session, the other group members are still required to do a fair amount of work in order to elicit Randal's involvement in more creative aspects of group activities. Randal's interaction style, and the contribution that it makes to the construction of his identity, will be discussed in detail in the next session

### **The Contribution of Interactional Style to Identity Construction**

As noted above, Randal's non-action and lack of involvement in the beginning sessions are the most notable characteristics of his interaction style and serve to position him as someone who will make only a minimal contribution to both the group conversation and to the activity underway. In extract 3d, we can see that Randal makes no response after Rob bumps into him, and this likely contributes to Rob's less friendly and more formal conversational move in comparison with how he interacts with Cameron and Hal. Once Randal has the opportunity to

lead the group in an activity, both his interaction style and his position in the group begin to shift. Returning to the ball and bucket activity in session three, we can again contrast LeAnn's interaction style as she leads the activity, with Randal's style as he leads the same activity. Despite multiple side-involvements that are began and maintained by the rest of the group, Randal does not enter into any of these but continues to focus solely on the functional goal of the task. LeAnn on the other hand performs the activity in an upbeat, buoyant manner that maximizes the sense of fun and the interpersonal goal of the activity, but is not successful in achieving the functional goal of getting the balls into the circle. LeAnn also regularly monitors the other group members and tailors her talk accordingly (Goodwin, 1980), to ensure that they are comfortably oriented to where they stand where they're going. This is something that Randal does not regularly do, even if it is directly requested of him.

Extract 11

1. LeAnn: †WE'RE †[JUST FOLLOWING ROB
2. Rob: [how many degrees Hal [er wait (.) Randal
3. LeAnn: [GIVE IT TO ME I  
[DEMA:AND [huh (1.0) AN OVERTHROW
4. Randal: [keep walking
5. Cameron: [why am i following Rob?
6. Amy: HA HA HA
7. LeAnn: I [demand an overthrow (.) the politi[cs over here
8. Randal: [stop
9. Hal: [STOP
10. Randal: there's uh
11. Cameron: wait (.) [how did we just miss all the cones?
12. Randal: [to your right
13. Hal: [Randal's a master
14. Randal: [(?)
15. Cameron: yeah [he's really [(?) side by side
16. Randal: [walk
17. LeAnn: [RANDAL YOU'RE SO:O gre[at
18. Hal: [‹wait wait›  
[across the hallway?
19. Randal: [walk (.) walk forward
20. LeAnn: WE'RE IN THE DARKNESS NOW= ((she has stepped under the shade of an overhang))
21. Randal: =stop
22. LeAnn: ooh its °†cold°
23. Kristen: ha ha ha
24. Randal: uh (.) Hal turn to your (2.0) right

In line 1 of this extract, LeAnn narrates what they're all doing, 'just following Rob' in a way clearly meant to show that this is the extent of her knowledge about what they are doing and that she would like more in order to feel more comfortable with the activity. She goes further to jokingly 'demand an overthrow'. This comment is notable because she positions Randal as the butt of a joke, which didn't occur prior to Randal taking on the leadership role he occupies in this sequence. The way that LeAnn constructs her remark is interesting, because it is ambiguous who she would like to overthrow, Rob or Randal. Rob is the one who the group members are following and the one mentioned by name, but Randal is the one directing Rob, and positioning

Rob in his role as the blindfolded leader of the procession of blindfolded followers. In any case, Randal's status appears to be elevated to someone who can be positioned as the butt of a joke, even if it is done indirectly. Randal does not respond to LeAnn's query, and simply commands the participants to 'keep walking' in line 4; he thus avoids LeAnn's playful attempt at a coup by not acknowledging her discontent. In line 20, LeAnn expresses literally that the group is 'in the darkness now' as they are led into the shade of a nearby building, and her comment is an apt illustration of the figurative darkness that she feels because she is not being given insight into where she's being led and what Randal's ultimate plan is.

Extract 12

1. Cameron: do I follow the rope?=  
2. Randal: =walk forward (1.8) stop  
3. LeAnn: °the pull of the [rope (.) ha ha it guides us° haha  
4. Randal: [um you can put your (1.0) your left (1.0)  
your [left foot forward  
5. Cameron: [Randal  
6. Hal: is there=  
7. Cameron: =Randal=  
8. Hal: =is it OH I FEEL IT ((walking into a cone))  
9. Randal: stop  
10. LeAnn:> should we be doing something?<  
11. Randal: move your left (.) foot backwards

In lines 1, 5, 6, 7, and 10, the blindfolded participants make bids for Randal's attention, and attempt to get clarity on what precisely they are to do. However, Randal does not give in to this side-involvement and maintains his focus on directing Hal and only Hal while the other group members stand there blindfolded. Randal does not appear interested in giving the group a 'big picture' layout of where they are oriented in space in relationship to the obstacle course or each other; he gives directions one step at a time and is unconcerned with how comfortable or confident the group members are in their position.

In the next extract, Rob nearly spills the balls out of the bucket, which would essentially result in their failure in completing the activity. Amy and Kristen, the only people who can see the activity besides Randal, express the gravity of the situation with ooh's in lines 4 and 5, and in line 6 Amy notes that they are 'very lucky' that the bucket did not tip. Randal is impervious to this, and continues on with his instruction as if nothing has happened. He is 'playing it cool' as described before, a marked contrast to LeAnn who screams, shouts, laments, and offers hyperbolic praise as she leads the activity. Extract 3a, line 3 is an illustration of this, but other examples abound in data not shown. LeAnn's antics seem to be the norm for counselors at this camp, who are expected to promote enthusiasm for the campers and offer endless encouragement and praise. In effect, one is expected to be always 'on', performing the activity of being a camp counselor (Goffman, 1959). Randal never takes on this persona, and in a way it might be somewhat of a relief (as it was to the researcher) to interact with someone who is not constantly putting up the front of unending gusto. In this way, Randal's failure to play into the common social expectations of camp culture may have helped transform his aloofness into a facade of cool, calm, and collectedness.

Extract 13

1. Randal: another step (2.0) [okay

2. LeAnn: [↑what do I ↑do::o?
3. Randal: that's good (.) and then Rob put the bucket down ((Rob puts it down hard, and it nearly spills))
4. Amy: O::[OH
5. Kristen [oooh ha[ha
6. Amy: [very lucky
7. Randal: further down

As the group comes to the end of the maze of traffic cones, Randal directs LeAnn to come to her knees in order to get the bucket closer to the circle that the balls must eventually be dropped into. However, he does it in such a way that his command has an obvious sexual connotation to the other group members.

Extract 14

1. Randal: now down on your knees
2. LeAnn: wha:at=
3. Amy: =OH [MY GO:OD
4. Hal: [NOW DOWN ON YER KNEES
5. Randal: now there [there's (a cone in the center)
6. Rob: [((says something quietly to Hal))
7. Hal: listen to Randal
8. LeAnn: OKA::[AY IM GONNA DIE ((laughing, slowly lowering to the ground))
9. Hal: [(he ha the (?)

The incredulity expressed by LeAnn and Amy, and the snickering jokes passed between Hal and Rob are evidence that the rest of the participants certainly see and are conceivably a little shocked by the faux pas that Randal has committed. However, Randal appears to be not only oblivious to his error, but also to the others' reaction to it. In line 5 we see Randal continue to give directions to LeAnn on how to go about completing the task. He is apparently uninterested and perhaps unaware of the side-involvement of making fun of his own interactional misstep.

Randal's style is in direct contrast to LeAnn's, who also directs the participants to come down to their knees when she leads the group activity just prior to Randal's turn. It is remarkable how unlike Randal she is in making the request:

Extract 15

1. Hal: pull it tight? I'm not gonna do it yet but (.) pull it tight?
2. LeAnn: yes so the bucket tips
3. Hal: okay
4. LeAnn: so Randal you have to pull yours tight (.) and up (2.0) and Cameron you have to pull yours up - <not so far up not so far up> how bout you guys kneel? Let's all kneel ((moves down onto her knees; everyone but Rob also moves onto his knees))

In line 4, LeAnn asks rather than commands, uses 'kneel' as the operative verb rather than 'down on your knees', and even comes to her knees herself, avoiding the possibility that she is positioning anyone in a submissive role. This is especially interesting given the fact that everyone but her is blindfolded, and therefore can get no benefit from seeing LeAnn on her

knees. However, the importance of making this request in an artful way is foregrounded when compared to the way in which Randal makes the same command, and the response that it generates. There is no snickering or jokey banter after LeAnn's request, and it is never transformed into the risqué status that Randal's command achieves.

What appears to be different about Randal's interaction style is what Goodwin (2000) calls *reflexive awareness*. This concept refers to the necessity of being aware of how the recipient of action is positioned to co-participate in the interactive frameworks necessary in order for an action to take place. According to Goodwin, this awareness is

...not simply an 'interior' element of the mental processes necessary for defining the action (as it could be analyzed for example within traditional speech act analysis), but a public, visible component of the ongoing practices used to build the action, something that leads to systematic, relevant changes in the shape of the action (pp. 1503-1504).

In much of the traditional literature on conversational impairments in autism, the failure to take into account the perspective of the other is discussed as just such an interior element of the mental process, specifically as a lack of theory of mind (Hale & Tager-Flusberg, 2005). In contrast, Goodwin's perspective, and the one taken in this paper, focuses on the public space of interaction including the semiotic fields of the materials oriented to, the bodily orientation and gestures of each participant, as well as the speech stream. Indeed, Randal appears to be able to take the perspective of the other in the most literal sense, as he tailors his directions to the group to reflect their physical orientation in space rather than his own. In extract 12, Randal is facing the participants and must transform the directions 'left' and 'backwards' in lines 4 and 11 from his own orientation to reflect the perspective of the other group members. He does this throughout his role as the group leader, and for the multiple perspectives of each of the four other group members. Thus, a simple failure to take the perspective of his listeners into account does not appear to capture the actual differences in Randal's communication. Additionally, he understands very well the semiotic medium of the game activity and the mechanics of the materials that make it up. Rather, he seems to either not recognize or to overlook the connotations of his words and the multiple socio-cultural meanings that they entail. What is of primary importance to him is the task. Since Randal does not give any indication that he is embarrassed by how his remark is interpreted, he can almost be construed as being more mature than the other group members. This sequence is reminiscent of how younger adolescents will snicker when a classroom teacher inadvertently makes a sexual reference during a lecture, and is then required to wait for the pupils to calm down before moving on.

LeAnn adjusts both the content and tempo of her talk in a dynamic and ongoing fashion as she watches how her listeners carry out her commands. Extract 16 is transcribed so that verbal utterances appear in the left hand column, and the corresponding actions appear in the right hand column, roughly in line with how they occur in time. LeAnn's utterances are carefully timed through repetition and the speed with which she repeats each direction to match the duration of time that the group members are expected to move in each direction. For example, in line 7 she repeats 'left' at a baseline tempo as Randal takes small steps left, and then switches to 'right' for a brief beat, and then repeats 'straight' at a quickened tempo. While she is repeating 'straight', Randal moves more quickly. LeAnn's speech is serving as a kind of 'anchor' for the participants to coordinate their actions and know that they are moving in the appropriate direction at all times. In contrast, Randal's commands are more whole-form (such as in lines 8, 12, and 16 of



extract 11), and do not have this make-it-up-as-you-go quality. His directions are simply stated, and the participants are expected to follow them until he gives another direction.

Extract 16

<p>1. LeAnn: I need to put the ropes (?) so I can get it right (.) so Randal, put your rope on the ground so Cameron can step over it and Cameron step to the right(2.0) &lt;right right [right&gt;</p>	<p>Randal bends down to the ground</p> <p>Cameron begins to pivot right</p>
<p>2. Cameron: [this way</p>	
<p>3. LeAnn: yes (.) right right &lt;right wait NO&gt; Rob put your rope to the ground [too</p>	<p>Cameron continues to move right, Rob lifts his arm, lifting the rope and bucket, lowers it back down to the ground</p>
<p>4. Cameron: [just walk?</p>	
<p>5. LeAnn: <u>okay</u> now walk over the ropes there's gonna be a rope there (3.0) &lt;there you go&gt; okay you're good (.) Randal stand up (.) [and walk to the (1.0) left</p>	<p>Cameron steps over the rope</p> <p>Cameron stops</p> <p>Randal stands</p> <p>Randal Begins to walk left</p>
<p>6. Amy: [uh huh ↑huh</p>	
<p>7. LeAnn: <u>left left left</u> [&lt;right straight straight straight&gt; (.) just walk you're <u>good</u> you're not gonna hit the cones don't worry</p>	<p>Randal slowly walks left, pivots slightly right</p> <p>Randal slowly walks straight</p> <p>Randal walks straight, slightly faster</p>
<p>8. Rob: [more</p>	
<p>9. (3.0) LeAnn: That's me <u>stop</u> ↑huh</p>	<p>Randal moves toward LeAnn until he almost bumps into her, then stops</p>

Also unlike LeAnn, Randal does not adjust to the changing, socially oriented needs of the others that are visually displayed in their blindfolded fumbling through the maze of cones. As a result, the other group members are more likely to request details about where they are in space in order to orient themselves, and to ensure that they are moving around in the way that Randal would like (lines 1 and 10 of extract 12, for example), which Randal does not give out even when asked to. LeAnn offers rationale for her directions, such as 'so the bucket tips' in line 2 of extract 15, and 'so Cameron can step over it' in line 1 of extract 16, so that the group members can form a mental picture of what their actions are doing. She also offers soothing feedback such

as ‘don’t worry, you’re not going to hit the cones’ in line 5 of extract 16, in response to Randal’s tentative movements. When Randal leads the group, his concern appears to be exclusively with the functional needs of completing the task. This strategy serves him well in an important respect, since he was the only group leader to actually succeed in getting the balls into the circle. Likewise, his interaction style should not be viewed as a failure to achieve intersubjectivity, but rather evidence of functionality taking priority over regulating the socio-emotional needs of the group. He does not interact in a socially traditional way, but his actions (and non-actions) achieve a positive identity as someone who is quiet and mysterious, yet competent.

## **Discussion**

This analysis illustrates how a group of adolescents construct the identity of an individual with an autism spectrum disorder. Using a framework that emphasizes the dynamic and public formation of identity, group interactions were analyzed to explore the nature of Randal’s identity as well as how his interactional style worked to determine its construction. The five principles outlined by Bucholtz and Hall (2005) provided a framework to interpret the interactions involving Randal and his peers. To summarize, each principle and its utility in this analysis will be briefly described in this section.

### **Emergence**

In the context of the team building workshop described here, Randal’s shifting identity is not generated from a process of self-classification that is brought into interactions already formed, but is instead an emergent product of the social exchanges that he participated in. Thus, new interactions in different contexts with different interaction partners will result in new transformations of his identity. Randal will bring these experiences with him into future interactions and they will likely play a role in his future conduct and interactive style, but his identity will continue to be an interactional accomplishment that is not pre-determined.

### **Positionality**

Within the team building workshop, Randal takes on different roles that serve to provide interactional space for the continual transformation of his identity. Locally relevant categories, such as camp counselor, teambuilding workshop member, and activity leader, are oriented to throughout the group members’ interactions and function to bootstrap how the participants make sense of Randal. On an even more fine-grained level, the temporary and interactionally determined categories of peripheral participant, master of camp activities, and joke teller are all descriptive of Randal’s positioning in the group. Importantly, the macro-category of ‘person with an autism spectrum disorder’ did not itself play a direct role in Randal’s positioning, although some features of his interactive style certainly stem from this diagnosis.

### **Indexicality**

The group members use a range of indexical references to directly describe Randal throughout the workshop, including ‘master’ ‘master warrior’ and ‘leader of the bandits’. Evaluations of ongoing talk (or a lack of expected talk) and competence in activities are also indexical processes that build and transform Randal’s identity. The language system of youth culture, such as elisions like ‘sup’ and colloquial commentary such as ‘tight’ are first withheld and then actively used with Randal, identifying him as a group member.

## **Relationality**

Randal's identity is not one-dimensional or 'thin', but rather multi-faceted and made up of several juxtaposing dimensions. The complementary relations that serve to construct Randal's identity certainly include similarity/difference, genuineness/artifice, and authority/delegitimacy, among others. Randal is similar to the other group members, as he participates in the same activities and wears a similar camp uniform, but he is also different in his unique interaction style, aloofness, and uncanny abilities. Bucholtz and Hall (2005) describe the process of *adequation*, in which individuals need not be identical to one another in order to be positioned as alike, but need only to be sufficiently similar for interactional purposes. This description fits nicely with the process whereby Randal is identified as an interactionally capable group member. His position as 'the master' is both genuine and artificial as the other group members do seem to appreciate his abilities, but veer into hyperbole in their characterization of him as 'the master of all camp activities'. As the master, Randal is an authority figure in some ways, but is also delegitimated as a source of input for many of the activities in the beginning sessions, including ones that involve telling the narrative of one's own life. Likewise, his 'coolness' in situations like the ball and bucket activity have another side of the coin; he is probably missing out on social references (like sexual innuendo) and is probably not just too 'cool' to notice them.

## **Partialness**

Any particular identity construct is only a partial account; if this analysis had been of other interactions at camp, the account would have been different. Additionally, the act of constructing identity is distributed over multiple social actors, and each one plays only a partial role. For example, it might be argued that because Randal himself does not directly contribute indexical categories such as 'master warrior', he lacks agency in forming his own identity. However, I would argue that terms themselves only partially constitute the meaning imbued in Randal's identity; these indexes are really a shorthand or gloss for Randal's interaction style. His interactive moves within the social activities and conversations, including not acting, constitute the real meaning of these references, and provide the material that led to these particular terms being offered up in the first place. Randal is not literally a warrior or a leader of group of brigands, but rather a quiet teen who is capable of rising to the occasion when given the opportunity.

## **Conclusion**

Given the difficulty that many adolescents with ASD experience in peer interaction, this study is an important illustration of a 'best case scenario' of how a positive social identity can be achieved in a supportive context. Over the course of six social group meetings, the participants acquired a common fund of experiences that were drawn upon to expand possibilities for interaction. Randal's interactive style, coupled with the work of his peers in highlighting his strengths, enabled a socio-culturally relevant identity to emerge.

Fostering a group social identity is a key feature of the Integrated Play Groups model on which this intervention is based (Wolfberg, 2009). However, it is not the traditional focus of many intervention programs designed for older children, which usually seek to improve mental functioning of only the target child. The stance taken here is that the realization of social and communicative competence, and the development of an identity that incorporates this

competence, involves all participants in a social scenario. Social interaction may exacerbate the condition of disability, especially for those that are characterized by social disabilities, but it may also serve to minimize it (Forman & McCormick, 1995). Contextual supports such as adult facilitation and the arrangement of appealing activities that foreground participants' interests and strengths can raise the bar of the interactive potential of the entire group and increase the likelihood that a positive identity will emerge. These are important considerations when designing social supports for adolescents with autism and identifying markers of successful interventions.

This study has several limitations that warrant consideration. First, the study presented here is not meant to investigate the efficacy of the intervention model studied, only to illustrate particular social processes that occurred during implementation. The viewpoint from which this analysis was conducted holds that the process of identity construction is in part context-bound; thus, it would be inappropriate to extract general categories and expect that they could be applied to other participants in other contexts. Additionally, data collection occurred over a relatively short time frame. Future research should be conducted to illustrate how identity construction develops and transforms over extended intervention sessions. The particulars of how the facilitation process and the activities presented contributed to the positive spin on Randal's identity are interesting questions that have not been explored here, but should also be a focus of future research. With these considerations in mind, there is evidence to suggest that being brought into a context where peer interactions occurred regularly was an important factor in the emergence of Randall's unique identity as a group member.

### Chapter 3: Adolescent judgments and reasoning about the exclusion of peers with social disabilities

The purpose of this study is to explore age, gender, and contextual differences in the ways adolescents evaluate and reason about acts of exclusion of students with social disabilities. Prior research has been conducted on how children and adolescents evaluate exclusion in regards to gender and race (Crystal, Killen, & Ruck, 2008; Horn, Killen, & Stangor, 1999; Killen, Crystal, & Watanabe, 2002; Killen, Kelly, Richardson, & Ruck, 2010; Killen, McGlothlin, Lee-Kim, & Stangor, 2002; Killen, McGlothlin, & Lee-Kim, 2002; Killen, Pisacane, Lee-Kim, & Ardila-Rey, 2001; Killen & Stangor, 2001; Theimer, Killen, & Stangor, 2001) but few studies have systematically explored how adolescents think about disability status and exclusion. Social disabilities such as those comprised under autism spectrum disorders (ASDs) are of particular interest, given the nature of the disorder and its profound effect on social interaction, which may play a large role in decisions to exclude.

The adolescent age period is fraught with turmoil and conflict as individuals attempt to differentiate themselves from adults and align with their peer group, even as they are becoming increasingly cognizant of social norms and expectations. For those with social disabilities such as ASD, this period can be even more challenging, as an ASD diagnosis entails differences in socialization, communication, and behavior (American Psychiatric Association, 2000) that make it more difficult to gain acceptance from peers. Research has established that the likelihood of peer rejection and exclusion for adolescents with ASD increases as children get older (Chamberlain, Kasari, & Rotheram-Fuller, 2007; Orsmond, Krauss, & Seltzer, 2004; Shea & Mesibov, 2005; Swaim & Morgan, 2001; Symes & Humphrey, 2010). In unsupported contexts, students with disabilities are at best located on the periphery of social networks (Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011) and are at worst entirely excluded or even bullied by their non-disabled peers (Flynt & Morton, 2004; Humphrey & Symes, 2011; Symes and Humphrey, 2010). These findings show a clear need for a better understanding of how typical peers evaluate decisions to exclude peers with social disabilities from relevant social experiences.

As of 2003, approximately 27% of all children with ASD spent 80% of their full educational day in general education classrooms (American Institutes for Research, 2007). Given that ASDs are currently being diagnosed in the U.S. at rate of 1 per 110 births (Department of Health and Human Services, Center for Disease Control and Prevention, 2009), and more students with social disabilities such as ASD are being included in regular education classrooms, the topic of how peers in general education classrooms reason about exclusion is an important and timely area of study. Other authors have already pointed out the importance of non-disabled peers in the success or failure of inclusive placement for individuals with social disabilities (Jones & Frederickson, 2010; Ochs, Kremer-Sadlik, Solomon, & Sirota 2001; Symes & Humphrey, 2010), as they represent the majority of the general education student body, and have a large role to play in enforcing or widening social norms to be inclusive of individual differences such as those characteristic of ASD.

From the outset, issues of peer exclusion of children with social disabilities is a complex one, as the reasons that these children are excluded may directly relate to their ability to function socially within the peer group. Unlike situations of exclusion based on gender or race, where differences are primarily physical, readily apparent, and perhaps based on perceived rather than actual social differences, exclusion based on social functioning may be due to more tacit knowledge and less associated with a physical cause known by those who are choosing to

exclude. Other students may not know that there is a disability present, but only perceive the apparent lack of social competence. An important difference between gender and race on the one hand and social disability on the other is that gender and racial categories are no longer sanctioned in the U.S. as appropriate grounds for exclusion from most social contexts such as schools or other public institutions. In contrast, individuals with social disabilities like autism are often educated apart from their typical peers, illustrating an institution-level sanctioning of exclusion based on disability status. While this study is not situated within a social transmission model which would predict that institutional sanctioning of exclusion would cause individuals to determine that this type of exclusion is morally acceptable, it is important to recognize that exclusion from classrooms would seriously limit the amount of contact and interpersonal experiences that typical peers would have with individuals with these types of disabilities. Therefore, decision making is more likely to be based on perceived or stereotypical characteristics than on actual barriers to social inclusion gathered by experience.

Philosophical conceptions of a just society often have difficulty when it comes to how to ensure that individuals with disabilities are treated fairly and have opportunities for a good life (Becker, 2005; Nussbaum, 2006). What resources are those with disabilities entitled to? To what extent are individuals and society at large obligated to adjust in order to accommodate and include individuals with disabilities? The difficulties that are inherent to these questions are apparent when examining how adolescents grapple with these issues. In order to capture the complexity of how judgments are formed, this study will determine the reasons subjects' give both for and against exclusion as they attempt to come to a final judgment on whether or not exclusion is appropriate.

### **Overview of Domain Theory**

The domain theory of moral development (Nucci, 2001; Turiel, 1983, 2002, 2006), a theoretical approach within which this study is situated, posits that from a very young age individuals make distinctions between at least four domains of social knowledge when formulating moral decisions; the moral domain (pertaining to issues of welfare, justice, and rights), the societal domain (pertaining to issues of social norms and group functioning), the personal domain (pertaining to issues of personal choice, preference and jurisdiction), and the prudential domain (pertaining to issues of personal well-being). Events that are considered to belong to each domain are thought about in different ways. Moral issues are evaluated as involving obligations that transcend and can even be in opposition to existing rules or norms, while social conventional issues are contingent on such rules. Personal issues are thought to lie within one's own discretion, and are subject to personal choice rather than moral obligation. Prudential issues, on the other hand, are often thought to be within the jurisdiction of those in authority, such as parents and law-makers. While some issues are thought to be prototypical of particular domains, many issues are mixed and contain elements involving several domains.

The reasons individuals give for their evaluations also differ by domain, and are thought to involve age related changes (Davidson, Turiel, & Black, 1983; Nucci, 2001; Turiel, 2008a). Young children do not base their moral decisions solely on concerns of punishment, rewards, or authority dictates, as has been previously theorized (Kohlberg, 1969; Piaget, 1932; Skinner, 1971), but instead on concerns of harm and fairness that must be balanced with concerns in other domains, such as personal choices and group functioning. As children develop into later childhood, concerns with welfare and justice become more prevalent.

Emerging research suggests that the development of moral reasoning involves a U-shaped curve rather than a simple linear trajectory (Nucci & Turiel, 2009). Younger children are more likely to view complex situations as being straightforward moral events, while middle-school age children are able to acknowledge the complexity of the event but find difficulty in coming to a coordinated judgment that takes into account moral and non-moral elements. Older adolescents will acknowledge complexity and ambiguity, and are able to ultimately override competing considerations with moral reasoning. Thus, the youngest and oldest participants will give 'morally correct' responses, but for different reasons and with different degrees of complexity characterizing their decision making.

The process of development involves children's active and continual participation in events that are closely related to the formation of different types of social judgments. Social experiences differ by the domain of the issue (Nucci & Nucci, 1982a, 1982b; Turiel, 2008b). For example, children observe and are involved in acts in the moral domain such as harming, helping, and sharing; in the conventional domain such as standards of dress, table manners, and social etiquette; and acts of personal choice such as whether or not to engage in sporting events, or join an after-school club (Turiel, 2008a). Children's observations and reflections on these events are major sources of formation and change in moral and social judgments.

In contrast to classic stage models of moral development, which assert that reasoning structures that define a given stage are consistent across situations (Lapsley, 2006), domain theory emphasizes that different judgments and considerations are made according to the context in which the events occur (Asch, 1952; Helwig, Hildebrandt, & Turiel, 1995). Judgments vary with situations, and variations in how different events are evaluated and reasoned about result from the application of different domains of knowledge in a given situation. There is thus a relationship between the features of events and individuals' conceptualization of them as moral, conventional, personal, or multi-dimensional (Turiel, Killen, & Helwig, 1987).

Situating socio-moral development research within the theoretical and methodological tradition of domain theory has several strengths (Killen et al., 2002). First, this approach uses a clinical interview methodology that presents subjects with hypothetical situations, which they are then asked to evaluate. Asking subjects to give reasons in addition to their overall judgment of the rightness or wrongness of the act depicted in each hypothetical situation gives insight into the various factors that play into decisions to include or exclude, without an a priori assumption that adolescents view all such situations as primarily one involving moral considerations. The emphasis that this approach places on personal agency and the reasoning process is an important one, as several current theorists emphasize alternative processes either below the level of consciousness such as emotions or intuition (Greene, Sommerville, Nystrom, et al., 2001; Haidt, 2001), or outside of the rational agency of the person in processes of cultural transmission (Shweder, Mahapatra, & Miller, 1987). Domain theory views emotions as an important component of thought and reasoning, not as a competing process that can undermine rational decisions (Turiel & Killen, 2010). Further, this approach emphasizes that children do not passively accept the norms and values of their parents or cultural milieu, but construct and transform concepts of right and wrong based on their experiences with others in cultural contexts (Turiel, 2002). Therefore, asking subjects to give reasons for their judgments is an essential component of understanding the formation of morality.

Second, this study presents multiple situations with a variety of contextual details so that it is possible to discern a clear picture of which situational factors are perceived as relevant to particular judgment and reasoning patterns. In the present study, participants are presented with

contexts in which they must coordinate the goals and functioning of the peer group, personal preferences, and the moral obligation of fairness to others and the maintenance of rights to be included. Contexts were chosen that vary the salience of each of these situations; school-wide contexts are hypothesized to appeal to the rights of all students regardless of disability, peer group contexts appeal to group functioning, while home contexts appeal to personal choice and preferences.

Lastly, the situations are designed to represent events that occur in the everyday lives of participants, rather than the 'once in a lifetime' situations such as the Heinz Dilemma that were used in earlier studies of moral development (Kohlberg, 1969). In this paradigm, participants are asked to determine whether or not Heinz should steal a drug from a druggist who was overcharging in order to turn a profit, so that he could save his ailing wife. The moral infraction of stealing must be balanced against the moral imperative to preserve a life. Presenting participants with more typical situations allows for an understanding of how subjects reason about scenarios relevant to their own lives, and enables subjects to draw upon their actual social knowledge and experiences.

### **Research on Peer Exclusion**

**Judgments and reasoning about race and gender exclusion.** Within the domain theory approach to socio-moral development, a growing body of literature has examined issues relating to peer exclusion in regards to gender and race (see Killen, Margie, & Sinno, 2006 for an overview). Most school-age children, regardless of age, judge that it is wrong to exclude other children on the basis of race or gender when given a straightforward condition. However, in more multi-faceted conditions, such as when children were asked what should be done when the group has room for only one more participant, other priorities such as stereotypic knowledge and group functioning come into play (Killen & Stangor, 2001). Concerns about stereotypes and the ability of the group to function and achieve its goals increase with age, as children's knowledge about social customs, conventions, and group dynamics begins to emerge. This supports research on peer exclusion of children with disabilities, which suggests that exclusion is more prevalent in later childhood and adolescence. Decisions to exclude are not always simple cases of moral wrongdoing, but instead are examples of decision making that involves considerations of rights, tolerance, and welfare, balanced with considerations of cultural expectations, social norms, and historical patterns of societal intergroup relationships (Killen et al., 2002).

In a previous study, Killen and colleagues (2002) found contextual differences in how children make judgments about excluding others on the basis of gender and racial group affiliation. The authors found that in all age groups, 98% of children viewed exclusion from a social institution such as a school on the basis of gender and race as morally wrong. This judgment remained stable across ages, and did not change when children were given counter-probes relating to challenges from authority, social convention, or peer pressure. However, older children were more likely to view peer group and friendship contexts as belonging to a non-moral domain that was subject to personal choice; they did not consider excluding children from these contexts to be a moral issue. When probed, children gave reasons such as 'boys might not like to talk about the same things as girls' or 'blacks and whites do not share common interests.' These judgments were less stable than their judgments about not excluding children from social institutional contexts; when researchers suggested that exclusion was wrong, subjects were more likely to change their judgment. Therefore, when children are given an opportunity to weigh a variety of considerations, in this scenario fairness is likely to take priority over personal choice.



Interaction with others leads children to evaluate their experience and knowledge, and coordinate this knowledge to make complex social decisions. If children have more knowledge of and experience with children with disabilities, they may rely on this more nuanced, non-stereotypic knowledge when deciding whether or not an individual should be excluded from peer and friendship contexts. This type of knowledge will influence their concepts of inclusion, exclusion, and disability to a much greater extent than messages transmitted from teachers or parents that are not supported by interactive experience. Indeed, Killen and colleagues suggest that students whose social experience includes interactions with a diverse range of peers are less likely to use group affiliation as a basis for exclusion.

Support for this idea comes from Pettigrew and Tropp (2002), who conducted a meta-analysis of 203 studies on social contact and indicators of prejudice. They found that face-to-face interactions do in fact reduce prejudice. This was true for a variety of minority groups including racial minorities, the elderly, homosexuals, and individuals with disabilities. Their analysis suggests that not just any contact will achieve the result of decreased prejudice; they recommend that contact be situated in a particular way, first outlined in Allport's contact theory (Pettigrew, 1998). Specifically, individuals should have equal status, share common goals, be non-competitive, and come into contact in situations that have been sanctioned by authority figures (Allport, 1954, cited in Pettigrew, 2000).

**Peer perceptions and autism.** Research has shown that typical peer perceptions of and behavior towards individuals with autism play a significant role in the degree to which these students experience social inclusion (Jones & Frederickson, 2010; Ochs et al., 2001; Symes & Humphrey, 2010). Peers tend to view individuals with autistic behaviors in a more negative light than individuals who do not exhibit these behaviors (Campbell, Ferguson, Herzinger, Jackson, & Marino, 2004; Swain & Morgan, 2002). Despite the importance of typical peers in making social inclusion possible for students who experience social disabilities, there are currently no intervention models that take into account how adolescents reason about the act of excluding a peer with a social disability, and there are few studies that examine how students reason about disability that can be used to inform intervention design. Although peer training models are gaining popularity (DiSalvo & Oswald, 2002; McConnell, 2002), these models usually emphasize the peer's assistance in eliciting changes in the child with autism rather than focusing on how changes in the peers themselves in terms of perceptions and attitudes about social disabilities can enhance interaction possibilities (DiSalvo & Oswald, 2002). Instead, the locus for change is usually situated within the child diagnosed with the disability, while typically developing peers are rarely considered appropriate targets of study (but see Campbell et al., 2004; Swain & Morgan, 2002). Since there is evidence that many typical children, even through high school, have misperceptions and incomplete knowledge about autism (Campbell & Berger, 2011), a shift in focus to include typical peers as intervention targets may be warranted. Furthermore, Killen and Smetana (2009) stress that intervention on the individual skills level remains incomplete, and should include considerations of the larger social context and the opportunities that are made available to build peer relationships.

## Methods

### Participants and Setting

This study is part of a larger project involving a peer intervention designed to support adolescents with social disabilities in interaction with typically developing peers. Participants

were recruited from a summer camp where the intervention project was conducted, which is coordinated through the recreation sports division of a large University in the western United States. The camp serves elementary-age students, and offers sports and leisure activities such as soccer, softball, and chess. The camp also offers leadership training programs for adolescents aged 13-18. These programs are divided into three levels, determined by the enrollee’s age, past experience at camp, and leadership ability. In ascending order, these levels include Campers in Leadership Training (CILTs), Counselors in Training (CITs), and Junior Counselors (JCs). Embedded within the leadership training program is a “social skills track” designed for adolescents who experience significant social difficulty. Many of these students have a diagnosis on the autism spectrum, and all receive special education services with specific goals to remediate social skills deficits. Individuals enrolled in the social skills track receive staff support in job training, social skills instruction, and coaching while performing camp job responsibilities. While participants in this program were required to interact with adult camp counselors as they assisted in camper instruction, their interaction with peers in the leaders in training who were not also enrolled in the social skills track remained minimal. This was especially evident during lunch period, as the two groups chose to eat in separate spaces of the camp. The camp does not explicitly disclose which leaders in training participants are enrolled in the social skills track; every effort is made to maintain confidentiality that these individuals receive special education or camp staff support. Therefore, this context is similar to the situation found in many inclusive classrooms where disability status of included students is not explicitly made known to general education students.

This study included 38 typically developing adolescents aged 13- 18; n= 27 for 13-15 year olds and n=11 for 16-18 year olds. 20 of these participants were female (see table 1). Participants were recruited in person at Star Camp, and informed consent documents, which included parental consent for any participants under 18 as well as participant assent, were distributed and collected by the researcher.

Table 1  
*Participants*

Age	Male	Female	Total
13-15	14	13	27
16-18	4	7	11
Total	18	20	38

### **Interview Procedure**

Structured interviews (Turiel, 1983; Killen, Lee-Kim, McGlothlin, & Stangor, 2002) were administered to all participants in a quiet room on Star Camp property during the camp day. The participants were presented with hypothetical scenarios in which a story character chooses to exclude a peer with a social disability. Stories were developed to reflect authentic and age appropriate social contexts, including school, peer group, and home settings. Each story contains a description of the activity that the characters are involved in, a description of the effects of the social disability, and concludes with the protagonist’s decision to exclude the character with a social disability. Two sets of interviews were created; one with female characters to be administered to female participants, and one with male characters to be administered to male participants. A pilot study of interview procedures was conducted in advance to ensure that the stories were appropriate and relevant for this age group. Each story is described below.

**Story 1: lab group.** Margot is in class one day when her Science teacher announces that the class will be getting into groups for a week long lab project. Margot would like to ask three of her friends to be in her group, but sees that Sally, one of her classmates, is sitting alone and has not been asked to be in anyone's group. Sally has a disability that makes her really socially awkward, and because of this she has hardly any friends. Margot considers asking Sally to join her group, but decides to ask only her three friends instead because of Sally's disability.

**Story 2: soccer.** April and her friends are kicking a soccer ball around on a field near their school. They aren't playing a game, just socializing and having fun practicing their skills with the ball. Jody, a classmate of April's, wanders near the field. Jody has a disability, and because of this she isn't as coordinated with the soccer ball as the other girls and has trouble fitting in with people at school. April considers asking Jody to join them, since she can tell that Jody would like to hang out, but decides not to because of Jody's disability.

**Story 3: home.** Valerie just bought a brand new video game for her Nintendo Wii. It's the kind of game that's a lot more fun if two people play it. None of Valerie's siblings are home, but she can see that her neighbor Annie is home. Annie has a disability, and because of this she doesn't play games in the same way that other people do, and has trouble talking about things—sometimes if you ask her a question she won't be able to answer it. Valerie decides not to invite Annie over to play the video game with her because of Annie's disability.

**Study 4: general education classroom.** There is a high school that doesn't allow students with disabilities to be in classrooms with students who don't have disabilities. Laurie has a disability, and because of this she has trouble socializing with other students and is perceived as very strange by other people. She's pretty smart, but has trouble behaving in the way she's expected to behave in classrooms. Laurie and her parents would really like her to be in a regular classroom, but the school won't allow this because of Laurie's disability.

Following each story, probing questions were administered to determine the individual's evaluation of the story scenario, and the reasoning behind their judgment about the rightness or wrongness of the story character's decision to exclude the peer with autism. Questions following each story were as follows:

*Q1 Evaluation:* Do you think its okay or not okay that he/she was not invited?

*Q2 Justification:* Why do you think it's okay/not okay?

Additional questions were also asked to determine how competing moral considerations would affect judgments about exclusion (i.e., if the target child might experience being made fun of as a result of being asked to participate), and their thoughts about whether or not children with differences should assimilate to group norms if included in the peer situation. These questions were not considered for this analysis. All interviews were audio recorded and transcribed in full. A coding scheme based on domain theory (see appendix E for complete coding manual; Killen et al., 2002; Turiel, 1983) was developed using a subset of the interviews, to determine how the participant views judgments of exclusion as right or wrong, and the domains considered when reasoning about each judgment. See table 2 for a summary of justification categories.

Each justification was also designated as being either an argument for or against inclusion, depending on how the subject used the justification in their reasoning scheme. For example, if a subject gave the response "I can see how April might not want to include her because it would make her feel uncomfortable, but she should do it anyway because it would

make Jody feel good about herself”, this would be coded for two justifications; okay, personal domain and not okay, moral welfare. The ultimate judgment would be coded as ‘not okay’. Reliability data was gathered by having an independent coder analyze 25% of the interviews. Cohen’s kappa was .81 for judgments and .78 for justifications, which is considered to be in the ‘very good’ and upper end of the ‘good’ range, respectively (Landis and Koch, 1977).

Table 2  
*Justification Categories*

Category	Description
Moral- Welfare	Benefits or harm to others
Moral- Fairness	The equal treatment of persons
Personal	Preferences and choice
Societal	Social tradition, group functioning, maintenance of social organization, laws, authority dictates, and social influence (i.e., ‘peer pressure’)
Prudential	The maintenance of the actors own health and security
Negation of Welfare	Assertions that the act will not cause harm to the character being excluded

## Results

### Analysis of Judgments

To determine if judgments about whether or not it is acceptable to exclude individuals with social disabilities differ by age group, context, or gender, a 4x2x2 Anova was conducted with context as a within-subjects factor, and gender and age group as between-subjects factors. The outcome was coded as an ordinal response variable with three levels ordered for the degree of ‘okay-ness’ in the subject’s response (1= not okay, 2=both, 3=okay). Only the context variable reached significance, with  $F(3, 152) = 6.25, p < .001$ . There were no main effects of age group  $F(1, 38) = 1.57, p = .22$  or gender  $F(1, 38) = .22, p = .64$ . The soccer context was considered by the greatest number of participants to be not okay to exclude, followed by the classroom, lab group, and home contexts. See table 3 for proportions of each judgment by context. In order to determine which contexts differed from one another, Tukey’s HSD statistics were calculated for each mean comparison (see table 4). The lab group context differed from the soccer and classroom contexts (difference in means of .47 for each comparison), and the home context differed from the classroom and soccer contexts (difference in means of .58 for each comparison). Comparisons of the home and lab group contexts did not reach significance (difference in means of .11), and neither did comparisons of the soccer and classroom contexts (no difference in means).

Table 3

*Proportion of act evaluation judgments for each context*

Judgment	Context			
	Lab Group	Soccer	Home	Classroom
Not Okay	.39	.71	.39	.55
Both	.26	.11	.16	.42
Okay	.34	.18	.45	.03
Total	1.00	1.00	1.00	1.00
(count)	(38)	(38)	(38)	(38)

n=38 subjects, 152 total judgments

Table 4

*Tukey HSD pair-wise comparison of means for act evaluation*

Context	Lab Group	Soccer	Home
Soccer	.47*		
Home	.11	.58*	
Classroom	.47*	.00	.58*

n=38, \*indicates significance at the .05 level

### Analysis of Reasoning Structure

In order to determine the pattern of justifications that participants used across contexts as they formulated an argument for why exclusion of a peer with social disabilities was or was not permissible, three way contingency tables were constructed for each judgment response. These tables show the proportion of justifications for each side of the argument by context. Chi squared tests of independence were conducted to determine if there were overall differences in the use of justifications across contexts, and were also conducted for each justification category individually to determine which particular domains were different. In order to carry out these analyses, justification categories were dummy-coded to be dichotomous outcome variables; use of the category was coded as “1”, and not using the category was coded as “0”. Justifications whose proportion across contexts did not add to .10 were not considered.

**Judgment of Not Okay.** Chi squared tests confirmed that justifications differed across context for those that ultimately judged that exclusion was not okay;  $\chi^2(18) = 33.25, p = .02$ . Moral justifications were the most common across all four contexts with no significant differences for welfare;  $\chi^2(3) = 2.61, p = .46$  or fairness;  $\chi^2(3) = 3.22, p = .36$ . These justifications tended to be given as reasons for why exclusion should not be permitted. There was one exception to this; in the classroom context, moral reasons pertaining to welfare were also given as justifications as to why exclusion might be okay. There were differences across contexts for the personal domain;  $\chi^2(3) = 15.44, p = .001$  and the societal domain;  $\chi^2(3) = 8.94, p = .03$ . In the lab group and home contexts, issues of personal choice were the most frequently given justifications on the ‘okay’ side of the argument. In the soccer and classroom contexts, concerns in the societal domain were most prevalent reasons as to why exclusion would be okay. There were no differences in the use of the prudential domain;  $\chi^2(3) = 3.75, p = .29$ , which was used infrequently for this judgment response. These results are shown in table 5.

**Judgment of Okay.** A chi squared test confirmed that justifications differed across contexts for participants who judged that exclusion was okay;  $\chi^2(15) = 32.66, p = .005$ . Since there was only one subject who judged that exclusion was okay in the classroom scenario, the pattern of results in this context will not be analyzed. Participants who judged that exclusion was

permissible gave moral reasons as the most frequent response for why exclusion might not be okay across lab group, soccer, and home contexts;  $\chi^2(3) = 0.81, p = .85$  for welfare and  $\chi^2(3) = 51, p = .92$  for fairness. Reasons why exclusion was permissible included personal considerations which were used consistently in the lab group, soccer, and home contexts with no significant differences;  $\chi^2(3) = 0.55, p = 0.91$ , and societal concerns  $\chi^2(3) = 13.60, p = .004$  which were used more prevalently in the lab group and soccer contexts. Additionally, these participants pointed out that in the context of inviting someone over to your home, there was no direct harm inflicted on the person being excluded since they were not aware of the event from which they were being excluded (coded as ‘negation of welfare’;  $\chi^2(3) = 11.87, p = .008$ ). Prudential concerns were given only in the lab context in support of exclusion;  $\chi^2(3) = 4.17, p = .24$ . These results are shown in table 6.

**Judgment of Both.** A chi squared test confirmed that justifications differed across contexts for participants who judged that exclusion was both okay and not okay;  $\chi^2(15) = 33.94, p = .003$ . Participants in this category showed important differences from the previous two categories in the way that they applied justifications to each context. First, this group was the only group where the welfare category in the moral domain reached significance;  $\chi^2(3) = 8.34, p = .04$ . The fairness category was used similarly across contexts;  $\chi^2(3) = 2.43, p = .49$ . The personal and societal domains were also not significantly different across contexts;  $\chi^2(3) = 4.96, p = .18$  for personal and  $\chi^2(3) = 6.34, p = .10$  for societal. In the classroom context, these participants brought up issues in the personal domain on the part of the story character with a social disability, emphasizing that where one is educated should be in the realm of personal choice. This is in contrast to participants who judged that exclusion was not okay, as the proportion of personal concerns in this context was almost 0. Prudential concerns did vary across contexts;  $\chi^2(3) = 8.86, p = .03$ . In the lab group context, these participants brought up prudential concerns in addition to personal and societal issues as to why exclusion could be considered okay. Lastly, negation of welfare was only used in the home context;  $\chi^2(3) = 9.30, p = .03$ . These results are illustrated in table 7.

Table 5  
*Proportion of justifications by side of the argument and context, for act evaluation of ‘Not okay’*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	Not Okay	Okay	Not Okay	Okay	Not Okay	Okay	Not Okay	Okay
Moral Welfare	.55	0	.56	.05	.38	0	.44	.40
Moral Fairness	.41	0	.21	0	.35	0	.32	0
Personal***	0	.64	.10	.29	.19	1	.03	0
Societal*	.05	.36	.08	.62	.04	0	.15	.60
Prudential	0	0	.05	.05	.04	0	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
(count)	(22)	(11)	(39)	(21)	(26)	(7)	(33)	(10)

n=169 justifications

Asterisks indicates significance at the \*.05, \*\*.01 level, \*\*\*.001 levels

Table 6

*Proportion of justifications by side of the argument and context, for act evaluation of 'Okay'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	Not Okay	Okay	Not Okay	Okay	Not Okay	Okay	Not Okay	Okay
Moral Welfare	.73	0	.67	0	.70	.10	0	0
Moral Fairness	.18	.06	.17	0	.30	0	0	0
Personal	0	.59	0	.60	0	.59	1	0
Societal**	.09	.24	.17	.40	0	0	0	1
Prudential	0	.12	.0	0	0	0	0	0
Negation of Welfare**	0	0	0	0	0	.31	0	0
Total (count)	1.0 (11)	1.0 (17)	1.0 (6)	1.0 (10)	1.0 (12)	1.0 (27)	1.0 (1)	1.0 (1)

n=115 justifications

Asterisks indicates significance at the \*.05, \*\*.01 level, \*\*\*.001 levels

Table 7

*Proportion of justifications by side of the argument and context, for act evaluation of 'Both'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	Not Okay	Okay	Not Okay	Okay	Not Okay	Okay	Not Okay	Okay
Moral Welfare*	.33	0	.67	.50	.56	.22	.45	.42
Moral Fairness	.58	0	.17	0	.22	0	.32	.04
Personal	0	.57	.17	.25	.11	.44	.23	0
Societal	0	.21	0	.25	0	.11	0	.54
Prudential*	.08	.21	0	0	.11	0	0	0
Negation of Welfare*	0	0	0	0	0	.22	0	0
Total (count)	1.0 (12)	1.0 (14)	1.0 (6)	1.0 (4)	1.0 (9)	1.0 (9)	1.0 (22)	1.0 (24)

n=100 justifications

Asterisks indicates significance at the \*.05, \*\*.01 level, \*\*\*.001 levels

### Age and gender related Differences

In order to determine if justifications were applied differently for males as compared to females, and for younger adolescents as opposed to older adolescents, chi squared tests were conducted within each context for each judgment response. None of these tests reached significance (see appendix F for proportion tables).

### Discussion

The results of this study indicate that there is contextual variation in how adolescents evaluate decisions to exclude a peer with a social disability. Participants were more likely to determine that excluding a peer with a social disability from a casual soccer activity and a general education classroom was wrong than exclusion from a lab-group or home context. An examination of the justifications participants used shows that for the most part, exclusion of this sort was not perceived as a straightforward issue in any of the presented contexts. This is

supported by prior research situated in domain theory (Turiel, 2006). Rather, exclusion was viewed as a decision involving multiple concerns that must be carefully thought through and balanced. Different reasoning patterns were evidenced for different judgment responses, illustrating that judgments are influenced by how individuals identify features of a situation as well as by how they weigh the various components. For each judgment response, issues were brought up in support of both sides of the argument. In order to decide whether or not exclusion was okay or not okay in a given context, participants prioritized concerns on one side of the argument over competing concerns on the other side of the argument.

For those that ultimately judged that exclusion was not okay, moral considerations of welfare and fairness overrode concerns of personal preference, group functioning, and personal benefit. For those that ultimately judged that exclusion was okay, personal choice, group functioning, and prudential issues were often considered to be more important than moral concerns. Participants who answered that exclusion was both okay and not okay were of two types. Some could not come to a decision about which side of the argument contained the most important justifications, while other participants asserted that whether or not exclusion was okay depended on additional situational factors that were not mentioned in the story. For example, in the classroom context, several participants argued that whether or not exclusion was warranted depended on the severity and precise characteristics of the disability.

Justifications also varied between contexts. An examination of the interview responses shows that adolescents do not simply view contextual changes in a piecemeal fashion, but rather approach the situation holistically (Asch, 1952). Thus, situational features such as the setting of an event can change the very meaning of exclusion from one with an inherent moral foundation in one context to one that does not have moral implications when it occurs in another context. Responses illustrative of how adolescents thought about each context will be described below.

The lab group context involves elements of both personal preference and the group goal of completing the lab project. A 15 year old female explained why it would be okay not to invite a girl with social disabilities to join a lab group:

“She doesn’t feel comfortable including her. She doesn’t know exactly how to handle the situation in a way that would make the group work together.”

However, a minority of participants coordinated these considerations with arguments against exclusion, which were considered more important. An 18 year old female addressed group functioning and the preference of being with one’s friends, but ultimately decided that these issues were not pertinent to the decision, as issues of fairness took priority:

“I think it’s not okay because her disability is only about being socially awkward, it doesn’t inhibit any like way that she’d perform with the project, I’m assuming. So I think if the only thing she needs is to be asked to be in the group, then I think she should have asked, because Margot can always be with her friends or her friends can go find someone else... if it’s because of her disability I don’t think that’s very fair.”

In the home context, the situation with the highest proportion of participants judging that exclusion was okay, most participants viewed exclusion as within the realm of personal decision making. For many participants, considerations of welfare were negated and easily subordinated, since they determined that if someone does not have knowledge of not being invited, there is no



immediate harm in excluding. A response from a 15 year-old male reflects this type reasoning, stating,

I feel like it's ok, because it's not like he's rejecting him, because his neighbor is not like asking him. It's just like a choice that he makes and his neighbor is not aware of it. So his neighbor goes on like normally. If he doesn't feel like he can handle that kind of situation very well, then it's up to him really."

Participants who ultimately decided that exclusion was not okay in this context did not determine that choosing not to invite someone over because of a social disability results in no harm done; many of these participants looked at the situation more broadly, and considered the long-term psychological harm done to someone who is never invited over to a peer's home.

In contexts that were designed to represent more public realms, such as a casual soccer practice on school grounds or a general education classroom, participants generally recognized that there is a moral obligation to allow equal access to everyone. A 15 year-old female explained her view about excluding students from the classroom rather eloquently,

"I find it actually worse to put kids in different classes, because it makes them feel more isolated and they don't get to interact socially with other kids the same way that other kids get to interact with their peers. And I think that just makes it so much worse, and if you have a disability you want to get to know someone and make friends like everyone else, you don't want to be secluded in a different room not knowing what other people are doing. And that makes it worse, like their social skills worse and their ability to perceive situations, like in the classroom if their classroom is different than everyone else's."

However, equal access to the classroom was limited by concerns of fairness to the majority population of general education students, whose learning was thought to be jeopardized by the presence of a student who isn't able to conform to behavioral expectations. This context generated moral considerations on both sides of the argument, and this may have been a factor as to why the classroom scenario had the highest proportion of participants who did not make an ultimate decision of okay or not okay, but responded with 'both'. This is in contrast to studies of gender and race, where the vast majority of participants viewed exclusion from larger social contexts as not permissible (Killen et al. 2002).<sup>3</sup> This illustrates the differences in how adolescents think about excluding peers with social disabilities from this context as opposed to peers of different gender and race, which was considered to be straightforward moral decision. Including both genders and diverse races in a classroom was not thought to involve any possible negative consequences to the student population as a whole. An 18 year-old male alluded to the moral implications on both sides of the argument in the case of including someone who might behave unconventionally in a classroom.

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<sup>3</sup> The Killen et al. (2002) study did not include a category of participants who judged that the act of exclusion was both okay and not okay. It is not clear if this is because there were no participants who judged both, or if participants were given a forced choice of okay and not okay in the interview procedure, as the coded justifications used account for the total participant pool.

“If someone is disabled to the point where they’re literally distracting other students’ learning, then I don’t think that’s fair to the other students. I don’t think it’s necessarily right to say “oh he could never be in class” because that’s just lazy, You know, you can always find a time to include someone and do it the right way like balancing it so the students can be learning when they need to be learning and not being distracted, and so that the special student can also be included at certain times.”

The saliency of the moral concerns on the ‘not okay’ side of the argument shouldn’t be underestimated, as only one subject concluded that exclusion from a classroom was okay. When two moral arguments are pitted against one another, these can be the most difficult problems to solve. Indeed, this challenge is precisely what Kohlberg and others were aiming to illustrate in scenarios such as the Heinz dilemma, and needing to take a life in order to save a life.

The pattern of judgments and justifications found in this study are supported by previous research on exclusion which shows that more intimate social contexts such as a home are subject to personal jurisdiction, while larger contexts are subject to issues of fairness, welfare, and group functioning (Killen et al., 2002). This and other studies show that adolescents are capable of detecting nuances and recognizing ambiguity, rather than making idealized or impractical judgments that do not vary between situations.

In contrast to other studies that have found age related changes within the adolescent period (Killen et al., 2002; Perkins & Turiel, 2007; Smetana, 1988) this study did not find any differences in either judgments or justifications for the different age groups. Studies that have found changes cite differences in the use of the personal domain, as development in adolescence involves a process of gaining independence from authority by carving out a personal space. These studies involve scenarios where a parent or other authority figure is prohibiting an adolescent story character from doing something. In the study reported here, the personal domain was used to assert a lack of obligation, rather than to contest parental directives, which were not a part of the story contexts presented to participants. It could be the case that this dimension of the personal domain does not involve significant changes in the adolescent period, but would show changes if a wider age range was included. This study also did not find gender related differences. Killen and colleagues propose that the gender related differences in their study reflect the fact that girls have more experience with exclusion than boys, and are therefore more understanding of the moral implications. In this study, it could be that the type of exclusion involving a peer with a social disability is not conceptualized in the same way as excluding someone along the somewhat arbitrary distinctions of gender and race, and therefore is approached from a similar perspective for both males and females.

## **Conclusion**

This study extends the current literature using a domain theory approach to studying moral judgments and reasoning in children. The findings provide evidence of a complex reasoning process involved in adolescent judgments about exclusion of peers with social disabilities. There are several important findings in this study that may be of use to educators in inclusive school environments. First, the majority of participants judged that it was wrong to exclude a peer with social disabilities in two of the four contexts. Therefore, there is potential to take advantage of these judgments in order to foster inclusive communities that are accommodating to students with social disabilities.

Secondly, in the sample studied here, exclusion of adolescents with social disabilities is not a case of *moral exclusion*, which is defined as instances where a particular group is considered outside the bounds of moral requirements. This type of exclusion can have far reaching social consequences, such as disenfranchisement and unequal access to basic resources (Opotow, 1990). In the contexts involved in this study, exclusion was deemed acceptable when it clashed with other considerations, which included personal, societal, and prudential issues. Participants who judged that it was okay to exclude were aware that there were moral implications to their decision, but didn't feel that these concerns carried sufficient weight to override competing factors.

Lastly, in their reasoning as to why exclusion would be okay, participants often made reference to issues of being uncomfortable interacting with someone with a social disability, or not having the skills necessary to make the interaction work within a group context. These are concerns that can be addressed with appropriate supports, which can be as simple as providing information about social disabilities and supporting opportunities for interaction. Existing literature on providing information to typically developing students and supporting interaction suggest that this can go a long way (Campbell et al., 2004; Wolfberg, McCracken, & Tuchel, 2008). Emphasis can be placed on the idea that while decisions of who to invite into your peer group certainly involve elements of personal choice and preference, there is also an element of welfare that warrants consideration. Indeed, adolescents diagnosed with social disabilities such as ASD report feelings of loneliness and are at risk for long term depression due to infrequent contact with peers (Bauminger & Kasari, 2000; Ghaziuddin, Ghaziuddin, & Greden, 2002). If typically developing peers are aware of this, they may be more sensitive to the social needs of students with social disabilities.

There are several limitations to this study that should be considered when evaluating these findings. First, the sample size is relatively small, which may have contributed to an inability to detect age and gender related differences in both judgments and justifications. Second, the subject pool may not be representative of the wider adolescent population. All participants were recruited from a leaders-in-training program at a summer camp where the larger research project was conducted. Therefore, these participants represent adolescents who were selected as sufficiently mature and capable of overseeing elementary-aged campers. Additional research should be conducted on larger, more diverse populations. Lastly, the interviews were coded by the researcher who was not blind to study hypotheses, which may have resulted in bias. However, in order to offset these concerns, a reliability coder was recruited who was blind to study hypotheses, and reliability calculations were within an acceptable range.

This study focused on judgments of hypothetical exclusion events. These situations were designed to reflect everyday life, but actual occurrences of exclusion are likely to be even more complex and perhaps more ambiguous than the situations presented here. This has been shown to be true in studies comparing reasoning about actual events to reasoning about hypothetical events, although the general reasoning structure was similar (Turiel, 2008b). However, this study can be a useful starting point for understanding exclusion in real-life situations, and for designing future studies that pair this framework with observations and interviews directed toward exclusion events that have actually occurred.

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Appendix A:  
Intersubjectivity Scoring Manual (adapted from Garcia-Perez, Lee, & Hobson, 2007)

**General Instructions:** This scoring guide should be used to score 3-minute video segments of social group interactions. Prior to assigning a score for each construct, the video clip should be viewed at least once in its entirety; repeat viewings may be necessary. The scores given should rate the entire interaction sequence. Constructs should be considered ‘group’ interaction descriptors, rather than individual level variables; all participant behavior relevant to the interaction/activity should be considered. However, the target participant in relation to other participants should be considered the focal point of the observation. Coders should keep in mind that interactions can be in constant flux-- participants may segment off into side interactions, and then rejoin a whole- group interaction only to eventually re-segment into other side interactions. To the extent possible, the coder should follow the interactions of the target participant and consider the interaction partners most relevant to his/her interactions (or possible interactions in the event that a partner makes a bid for interaction that is not taken up by the target participant).

	Definition		
<b>Affective Engagement</b>	<p><b>Degree of affective sharing between interaction partners; a feeling of connection and a shared mood.</b> Matching affective markers (shared laughter, eye contact, etc.) are used as an indication that affect is shared; however it may be possible to have matching affect that is <i>not</i> shared, and these cases should not be considered as displaying affective connection. In practice it may be hard to distinguish the two cases, so the rater should use her best judgment. Nonverbal as well as verbal aspects of affective sharing should be considered; verbal displays should not be given particular weight over nonverbal displays or vice versa. When affect is neutral among participants, level of mutual sharing in the ongoing interaction/activity is measured. The interaction involving the participant must meet the description in one or more columns for a given level to be assigned that rating. Leftmost columns describe ‘passive’ target participants, middle columns ‘active-odd’, and right columns describe instances of neutral affect for the entire group. Construct measured on a scale of 1-5.</p>		
1: Minimal	<p>Target participant shows minimal affective connection to others in the group (ex: little eye contact, no vocalizations or affective displays that are mutually understood). Any match in mood appears incidental and not due to a connection between participants.</p>		
2: Low	<p>Interaction partners show few markers of shared emotional states (eye contact, shared laughter, or other affective displays).</p>	<p>Most affective markers that are shown do not match others in the group, either in intensity or quality.</p>	<p>If the group interaction is primarily characterized by neutral affect, the target participant shows little evidence of sharing in the conversation or activity with others in the group.</p>

3: Moderate	Interaction partners show shared affective states (eye contact, shared laughter, reciprocated facial expressions, or other affective displays) approximately half the time, while the remainder of the time there is little shared affect or 'mood'.	Approximately half of all instances of affective marking are not well matched with others in the group, either in intensity or quality, while other half is well matched. Mis-matching affective marking can include not joining in when two or more other group members are making obvious affective displays.	If the group interaction is primarily characterized by neutral affect, there is evidence of sharing in the conversation or activity between the target participant and others in the group approximately half the time.
4: High-moderate	Interaction partners show shared affective states for more than half of the time.	More than half of the instances of affective marking are shared with other participants, both in intensity and quality, while the remainder is not shared.	In instances where the group interaction is characterized by neutral affect, there is evidence of sharing in the conversation or activity between the target participant and others in the group for more than half, but not all of the time.
5: Strong	Interaction partners show shared affective states for majority of interaction sequence, both in intensity and quality AND match one another in their emotional expressions. There is a sense that the interaction partners are sharing the group feelings and overall experience.	In instances where the group interaction is characterized by neutral affect, there is evidence of sharing in the conversation or activity between the target participant and others in the group for the majority of the time	
<b>Flow of Interaction</b>	<b>Degree of smoothness of exchanges between interaction partners, in terms of rhythm, timing, contingency, and sequential nature of interaction.</b> This construct pre-supposes a minimal amount of exchange in order to be rated; when there is not enough interaction for flow to be measured, a 1 should be scored for this construct. Interaction can be through conversation or through joint cooperation in an activity that may or may not involve linguistic exchange. Nonverbal as well as verbal aspects of interaction should be considered; verbal interaction should not be given particular weight over nonverbal interaction. Markers of flow can include shifting eye contact as speakers change, nodding head along to interaction partner's speech, and closely timed responses to others' speech. Flow may also be indicated more 'tacitly', as interaction partners mutually engage in an activity without necessarily giving direct acknowledgement (e.g., verbal indication or direct eye contact) to one another of what they are doing. This is characterized by each partner engaging in the activity in a way that flows with how the other partners engage in the activity, a 'division of labor' that makes sense for the activity and allows it to proceed smoothly in joint cooperation. The interaction involving the participant must meet the description in one or more columns for a given level to be assigned that rating. For multi-column levels, 'passive' interactions are on the left and 'active/odd' interactions are on the right. Construct measured on a scale of 1-5.		
	1: Minimal	Characterized by no attempts at interaction or no response after attempts are made by other group members. Includes minimal engagement in the activity at hand. A rating of 1 indicates that there is so little interaction that 'flow' cannot really be measured	

2:Low	The participants only maintain flow (coordination of actions or words involving activity) for a minimal period-- less than half of the time.	
3: Moderate	The participants only maintain flow (coordination of actions or words involving activity) for approximately half of the time.	The interaction that does occur is primarily characterized by 'fits and starts' requiring one-sided effort to maintain interaction. 'Fits and starts' can be characterized by being out of rhythm, showing poor timing, or making comments with a lack of contingency to the ongoing conversation. Participant engages in an activity related to the group activity, but is often out of sync with other participants
4: High-moderate	Interaction is characterized by a combination of no interaction with moments of relaxed and steady pace of interaction and balance between interaction partners; steady and balanced interaction is dominant to no interaction. Participant is engaged in the activity, but actions move from being withdrawn to in sync with other participants with in sync being the dominant form.	Interaction characterized by a combination of fits and starts, with moments of relaxed and steady pace of interaction and balance between interaction partners; steady and balanced interaction is dominant to fits and starts or no interaction. Participant is engaged in the activity, but actions move from being out of sync to in sync with other participants with in sync being the dominant form.
5:High	Relaxed and steady pace to interaction, with work evenly balanced between interaction partners. Markers of flow can include shifting eye contact as speakers change, nodding head along to interaction partner's speech, and closely timed responses to others' speech. Engagement in the activity is smooth and concordant with few instances where target participant is out of sync.	

\*Note: A data segment is considered un-codable if there is a significant lull in the interaction and activity (e.g., the activity has come to its natural completion), such that there are no obvious opportunities for the target participant to enter into mutual engagement or establish affective connection with other group members. When coders come across files of this type, a subsequent data segment will be given to analyze in place of the un-codable file. For this file, coders should file whichever dimensions can be given a score, and fill in the remaining dimensions with a dot (.)

Appendix B:  
Sample Session Outline

<b>Meeting 1</b>	
Opening Script (~7 min.)	<p>Purpose of the Teambuilding Workshop: We're here to learn how to interact as a group with people who have different abilities, backgrounds, and interests. The goal of each meeting is for everyone to find a role from themselves and their team-mates, so that everyone contributes</p> <p>General rules: All camp rules apply. Be respectful, stay with the group, have fun, and be yourself.</p> <p>Over the course of the week, you'll take on different roles and learn how to accommodate each team member's different interaction and communication styles.</p> <p>Keep an open mind, and remember that being a leader is not just about being the person who directs everyone, but someone who understands how to contribute to the group as a whole. A leader is also able to see how each group member's individual abilities can be brought out to make a really strong group. As you do each activity over the course of the week, think about how are able to engage others in the activity and maximize everyone's contribution.</p> <p>By the end of the session, you will be leading the group, and I will become another participant in the group like you.</p> <p>Each day we'll have a few topics to think about and discuss as we go along. Here are today's topics:</p> <ul style="list-style-type: none"> <li>• How have everyone's life experiences in this group been different?</li> <li>• How have different life experiences shaped people with different interests and abilities?</li> </ul>
Group Check-in (~8 min.)	<p>Introduce yourself to the group, and ask them to introduce themselves to each other. Introductory Ice Breaker:</p> <ul style="list-style-type: none"> <li>• Everyone sit in a circle. Each participant will introduce the person sitting on their left. They must tell the group the person's name, age, and any important things that people should know about them (things they can add/contribute to the group, what they think they can get out of the workshop)</li> <li>• Make your own ice-breaker; introduce idea, give sign-up sheet for people to lead ice-breaker on Tues-Fri meetings. Should last for a maximum of 10 minutes. Must be an ORIGINAL idea, or at least an original variation of a classic activity. The goofier the better.</li> </ul>
Main Activity (~20 min.)	<p><b>Get to Know Ya Scavenger Hunt</b></p> <p>As a group, participants fill in a list of items involving experiences and personalities of each group member</p>



	<p>Materials: Scavenger hunt list, pens, paper, clip board</p> <p>Possible strengths to identify during the activity: Requires openness, communication, and organizing information about others.</p> <p>Notes: This activity can serve as the day 1 un-facilitated observation</p>
<p>Back-up Activities (~10 min.)</p>	<p>Plenty of Room at the Top</p> <p>Participants are given a block of wood with a nail in it, along with 20 additional large nails. The challenge is to see how many nails they can balance on the head of the nail in the block of wood.</p> <p>Materials: Wood block with nail in it, 20 large decking nails</p> <p>Strengths to Identify: Visual thinking, manual dexterity, communication, creativity, perseverance</p>
<p>Discussion Topics (~10 min.)</p>	<ul style="list-style-type: none"> <li>• How have everyone’s life experiences in this group been different?</li> <li>• How have different life experiences shaped people with different interests and abilities?</li> </ul>

Appendix C:  
Intervention Fidelity Checklist

Group Formation	Done		Not Done	
• Intake forms collected for each participant				
• Records review for ASD participants				
• Observations conducted for each participant				
• Participants grouped with similar interests				
Facilitation Strategies	Present	Partially Present	Not Present	
• Interpret and explain idiosyncratic behavior				
• Point out shared interests and commonalities				
• Validate initiations of all participants				
• Scaffold interaction between peers to the degree necessary				
• Withdraw support when possible				
• Reframe undesired behavior/avoid didactic tone				
• Adapt activities to reflect preferences and interests of the group				
• Where possible, use suggestions instead of directives				
• Maintain buy in from all group members				
• Encourage dialogue about inclusion, diversity, and acceptance				
• Use appropriate visual and communication supports as needed				
Follows Social Group Structure	Done		Not Done	
• Opening check-in				
• Group Activity				
• Closing discussion/integrate discussion into activity				
Data Collection	Done		Not Done	
• Maintains field notes for each group meeting				
• Adjusts activities according to data collected				
Supervision	Done		Not Done	
• Meetings three times/session				
• Review of facilitator strategies				
• Review of group progress				
• Troubleshoot barriers to group progress				

Appendix D:  
Transcription Conventions (adapted from Atkinson & Heritage, 1984)

- . Period indicates a falling, or final, intonation contour, not necessarily the end of a sentence.
- ? Question mark indicates rising intonation, not necessarily a question.
- , Comma indicates “continuing” intonation, not necessarily a clause boundary.
- ↑↓ Upward and downward pointing arrows indicate marked rising and falling shifts in intonation.
- ::: Colons indicate stretching of the preceding sound, proportional to the number of colons.
- A hyphen after a word or a part of a word indicates a cut-off or self interruption.
- word Underlining indicates some form of stress or emphasis on the underlined item.
- WOrd Upper case indicates loudness.
- °word° Degree signs enclose whispered speech
- = Equal sign indicate no break or delay between the words thereby connected.
- <word> Speeding up
- >word< Slowing down
- (( )) Double parentheses enclose descriptions of conduct.
- (word) When all or part of an utterance is in parentheses, this indicates uncertainty on the transcriber’s part.
- ( ) Empty parentheses indicate that something is being said, but no hearing can be achieved.
- (1.2) Numbers in parentheses indicate silence in tenths of a second.
- (.) A dot in parentheses indicated a “micropause,” hearable but not readily measurable; ordinarily less than 2/10 of a second.
- [ Separate left square brackets, one above the other on two successive lines with utterances by different speakers, indicates a point of overlap onset.

Appendix E:  
Judgments and Reasoning about Exclusion Coding Manual

**General Instructions**

The moral story interview consists of four story contexts; classroom, soccer practice, home, and school. Standard questions are identical for each story. Only the act evaluation, assimilation, and importance of assimilation questions should be coded, unless the subject does not give an answer, or gives “I don’t know” as a response; these items should be left blank and highlighted in yellow on the coding form. Information provided by additional probe questions should be taken into account, when relevant to the standard question. If subject appears to misunderstand the question, code according to their interpretation of the question.

**Act Evaluation**

Act evaluation questions include a judgment component (is it okay or not okay) and a justification component (why is it okay/not okay).

9. Judgment: *Do you think it’s okay/not okay that this person was not included?*
  - a. Okay: Endorses the course of action taken by the story character
  - b. Not okay: Determines that the story character’s actions were not permissible
  - c. Both/Depends: Subject gives “agree” and “disagree” responses, or may give agree and disagree scenarios contingent on certain hypothetical details of the situation. The subject maintains that he/she both agrees and disagrees throughout follow-up questions; no resolution is achieved.

If the subject gives first one response and then changes his/her mind throughout the course of answering the question, the final response should be coded.

10. Justification: *Why do you think it’s okay/not okay?* A maximum of three domains and subcategories can be coded. For each justification, it should be noted if the reason is for why the act is ‘okay’ or ‘not okay’.

Justification	Definition	Examples
Moral-Fairness	Appeals to the maintenance of fairness in the treatment of persons, or the rights of the individual. Includes discrimination due to disability status, and unfair exclusion when the reasons for excluding are not the person’s fault.	<p>“He should invite him because it just wouldn’t be fair not to”</p> <p>“they should just give him a chance”</p> <p>“Everyone should be treated the same, so she should be included”</p> <p>“I think that they should still allow her to do it because it is a right and even if it might take a little bit longer in the classroom...its just any human’s right to be able to have the same education”</p> <p>“The shouldn’t exclude him, because it’s not his fault that he has a disability”</p>
Moral-Welfare	Reference to harmful consequences to others, including physical or mental	<p>“It would make him feel really bad if he was the only one that wasn’t invited”</p> <p>“Maybe they could have helped her get better</p>

	pain	at kicking the ball around and make it more like helping out a girl that you know”
Moral-Rights	Appeals to specific reference to the rights of individuals	“Everyone has a right to be in a regular classroom, so they have to let him in”
Moral - Integration	Appeals to the wrongfulness of discrimination and the consequences of prejudice for the larger society or for humanity.	“If they don’t let him in, they no one in the school will have the chance to learn about people with differences, and everyone would think that everyone is the same. It’s good for everyone to learn about people with differences”
Societal Domain	<p>Societal sub-domains have been collapsed into a single category, and include justifications such as:</p> <ul style="list-style-type: none"> <li>• Group Functioning: Appeals to the need to make the group function well, achieve its goals, and the decision-making jurisdiction of the group to decide its members</li> <li>• Social Tradition: Appeals to social norms and traditions; the way things have always been done.</li> <li>• Stereotype: Appeals to labels attributed to an individual based on group membership and stereotypes.</li> <li>• Authority: Appeals to parental jurisdiction, parental authority, and government rules and laws</li> <li>• Social Influence: Appeals to the influence of others on whether or not to exclude the individual.</li> <li>• Disruption: Appeals to concerns that inclusion would disrupt the expected social organization</li> </ul>	<p>“I’d say it’s ok that he’s not in the class because if it’s really dysfunctional then it’s a problem”</p> <p>“That’s just kind of how things are, people tend to hang with people that they know and are like them”</p> <p>“He needs to act like how people are expected to act”</p> <p>“People with social disabilities tend to be really difficult to hang out with, so I don’t think they should ask him”</p> <p>“Its not an obligation because it’s the teacher’s responsibility”</p> <p>“He has to take into account what others are going to think of him, so he probably just shouldn’t invite him”</p> <p>“I think that the teacher would definitely approve of and definitely see as “oh wow that student’s really good”</p> <p>“She’s not really that good at soccer, so they don’t have to ask her”</p>

Personal Choice	Appeals to individual preferences or prerogatives, including maintaining desired psychological states (i.e., staying in one's comfort zone, having fun)	<p>"I mean it would be really nice but...but I don't feel like he needs to do that so its ok if he doesn't want to do it."</p> <p>"He's entitled to not invite him over"</p> <p>"He isn't obligated to take on that responsibility"</p> <p>"It wouldn't be as much fun for him if included him"</p>
Prudential	Refers to the maintenance of the actors own health, comfort, security, and well-being. Refers only to direct consequences to the actor, which are not imposed by others	<p>"It would be better for her not to invite her, so she can get a good grade on the lab project"</p>
Negation of Welfare	This code should be used when the subject asserts that the act will not cause harm to the character being excluded	<p>"Since she doesn't know that April isn't inviting her, it's not like it's going to make her feel bad"</p>

Appendix F:  
Additional Tables of Justifications Regarding Exclusion

Table 1  
*Proportion of justifications by age group and context, for act evaluation of 'Not Okay'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	13-15	16-18	13-15	16-18	13-15	16-18	13-15	16-18
Moral Welfare	.33	.42	.38	.42	.23	.57	.47	.33
Moral Fairness	.33	.17	.13	.17	.31	.14	.28	.17
Personal	.19	.25	.17	.17	.38	.29	.03	.08
Societal	.14	.17	.27	.25	.04	0	.19	.42
Prudential	0	0	.06	0	.04	0	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
(Count)	(21)	(12)	(48)	(12)	(26)	(7)	(31)	(12)

n=169 justifications

Table 2  
*Proportion of justifications by age group and context, for act evaluation of 'Okay'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	13-15	16-18	13-15	16-18	13-15	16-18	13-15	16-18
Moral Welfare	.21	.36	.17	.30	.27	.23	0	0
Moral Fairness	.14	.07	.17	0	.04	.15	0	0
Personal	.36	.36	.33	.40	.42	.46	.50	0
Societal	.21	.14	.33	.30	0	0	.50	0
Prudential	.07	.07	0	0	0	0	0	0
Negation of Welfare	0	0	0	0	.27	.15	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
(Count)	(14)	(14)	(6)	(10)	(26)	(13)	(2)	(0)

n=115 justifications

Table 3  
*Proportion of justifications by age group and context, for act evaluation of 'Both'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	13-15	16-18	13-15	16-18	13-15	16-18	13-15	16-18
Moral Welfare	.17	0	.57	.67	.43	.25	.41	.47
Moral Fairness	.25	.50	0	.33	.14	0	.10	.29
Personal	.33	0	.29	0	.36	0	.17	0
Societal	.08	.50	.14	0	0	.25	.31	.24
Prudential	.17	0	0	0	0	.25	0	0
Negation of Welfare	0	0	0	0	.07	.25	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
(Count)	(24)	(2)	(7)	(3)	(14)	(4)	(29)	(17)

n=100 justifications

Table 4

*Proportion of justifications by gender and context, act evaluation of 'Not Okay'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	M	F	M	F	M	F	M	F
Moral Welfare	.30	.39	.38	.38	.24	.42	.46	.40
Moral Fairness	.30	.26	.15	.12	.24	.33	.29	.20
Personal	.20	.22	.12	.21	.48	.17	0	.05
Societal	.20	.13	.27	.26	.05	0	.21	.30
Prudential	0	0	.08	.03	0	.08	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
(Count)	(10)	(23)	(26)	(34)	(21)	(12)	(24)	(19)

n=169 justifications

Table 5

*Proportion of justifications by age group and context, for act evaluation of 'Okay'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	M	F	M	F	M	F	M	F
Moral Welfare	.35	.18	.40	0	.25	.26	0	0
Moral Fairness	.06	.18	0	.17	.06	.09	0	0
Personal	.41	.27	.30	.50	.44	.43	0	.50
Societal	.06	.36	.30	.33	0	0	0	.50
Prudential	.12	0	0	0	0	0	0	0
Negation of Welfare	0	0	0	0	.25	.22	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	0	1.0
(Count)	(17)	(11)	(10)	(6)	(16)	(23)	(0)	(2)

n=115 justifications

Table 6

*Proportion of justifications by age group and context, for act evaluation of 'Both'*

Justification	Context							
	Lab Group		Soccer		Home		Classroom	
	M	F	M	F	M	F	M	F
Moral Welfare	.13	.18	.60	.60	.40	.38	.45	.42
Moral Fairness	.33	.18	0	.20	.20	.08	.20	.15
Personal	.33	.27	.20	.20	.40	.23	.05	.15
Societal	0	.27	.20	0	0	.08	.30	.27
Prudential	.20	.09	0	0	0	.08	0	0
Negation of Welfare	0	0	0	0	0	.15	0	0
Total	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
(Count)	(15)	(11)	(5)	(5)	(5)	(13)	(20)	(26)

n=100 justifications