THE RELATIONSHIP BETWEEN INTERPERSONAL THEMES IN PLAY AND PROSOCIAL MORAL REASONING

by

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The Relationship between Interpersonal Themes in Play and Prosocial Moral Reasoning

Abstract

by

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Research has shown that both pretend play and prosocial moral reasoning relate to the socio-emotional constructs of emotional understanding, perspective taking, and empathy. It then makes theoretical sense that play processes should relate to prosocial moral reasoning. The present study investigated this relationship and also served to provide further validation evidence for the Interpersonal Themes in Play Scale (ITPS). It was hypothesized that the ITPS scale scores would be related to prosocial moral reasoning in that children who showed more prosocial behaviors in their play would demonstrate more advanced moral reasoning. This study also investigated the relationship among prosocial moral reasoning, empathy, and prosocial behavior.

Results indicated that some prosocial themes in play did relate to prosocial moral reasoning categories and to sharing behavior. For example, Sharing/Turn-taking in play was significantly negatively related to hedonistic reasoning ($r(58)= -.26$) and Cooperation in play was significantly positively related to stereotyped reasoning ($r(58)=.25$).
The Relationship between Interpersonal Themes in Play and Prosocial Moral Reasoning

Children’s pretend play and prosocial moral reasoning are important functions in child development. Research has demonstrated that prosocial moral reasoning is related to several socio-emotional processes including empathy, perspective taking, and emotional understanding (Eisenberg, Pasternack, Cameron, and Tyron, 1984; Eisenberg, 1986; Eisenberg et al., 1987; Dunn, Brown, and Maguire, 1995; Eisenberg, Zhou and Koller, 2001). Research has found that pretend play is related to these constructs as well (Fisher, 1992; Seja and Russ, 1999; Harris, 2000; Niec and Russ, 2002). Also, several studies have demonstrated a relationship between pretend play and moral sensibility in the context of shared social interactions. The relationship between pretend play processes and prosocial moral reasoning has not yet been investigated.

Pretend play is often a venue for children to display interpersonal behaviors with cognitive and emotional underpinnings (Russ, 2004). Play has been shown to be a testing ground for enacting emotion-laden decisions (Rae, 1989; Terr, 1990). Thus, play may also serve as a safe forum for moral reasoning scenarios. Pretend play can be seen as one medium through which children gradually understand and display moral judgments, as well as a medium in which to develop moral reasoning. In understanding play as this developmental mechanism, clinicians may use it as a means to assist children in gaining knowledge of, practicing, and mastering effective social strategies (Knell, 1993; Shirk and Russell, 1996). Helping children develop moral reasoning skills and prosocial behaviors might enhance a child’s social support and social adjustment. In turn, strong social skills and support might buffer children who are at risk for maladjustment (Carlo, 2006). By understanding pretend play as a mechanism or reflection of moral
development, clinicians may be able to utilize it as an assessment tool as well as an intervention or as a preventive instrument.

The purpose of this study was to investigate the relationship between pretend play processes and prosocial moral reasoning. This study will serve to further validate a new scoring system, the Interpersonal Themes in Play System (ITPS; Niec, Yopp, and Russ, 2002) for the Affect in Play Scale task (APS; Russ, 1987, 1993, 2004). Additionally, this study will attempt to demonstrate the established relationships between prosocial moral reasoning, empathy, and prosocial behavior.

Pretend Play

Pretend play can be defined as “a symbolic behavior in which one thing is playfully treated as if it were something else” (Fein, 1987, p. 282). Although pleasurable for the child, play is fundamentally useful as well in that children learn a variety of skills through play and developmental change is brought about through play (Krasnor and Pepler, 1980). Fisher (1992) conducted a meta-analysis of 46 studies in the play and child development area up to 1987 to investigate the impact of play on cognitive, affective-social, and linguistic processes. In general, he concluded that play does result in improvement in children’s development.

Pretend play is comprised of a variety of cognitive, affective, and interpersonal processes which are central to healthy social functioning (Russ, 2004). Cognitive processes include organization, divergent thinking, symbolism, and fantasy/make-believe. Affective Processes include expression of emotion, expression of affect-themes, emotion regulation and modulation of the affect in the play, as well as comfort and enjoyment in the play. Additionally, play has a number of socio-cognitive correlates
which are also important to social functioning. Research has demonstrated that play processes are related to empathy and emotional understanding. Play also offers the opportunity for role-taking and the ability to see a situation from another’s point of view (Harris, 2000). Seja and Russ (1999) studied the relationship between emotional expression, emotional understanding, and fantasy in first and second graders. They found that quality of fantasy play was significantly related to the ability to describe emotional experiences and to understand others’ emotions. In a study focused on pretend play and emotion regulation, Galyer and Evans (2001) examined pretend play and the development of emotion regulation in preschool children. Fifty-one preschool students and their parents completed questionnaires concerning frequency of play, pretend play, and non-pretend play. Children also completed the Emotional Regulation Checklist (Shields and Cicchetti, 1998) and were observed during a pretend play activity. Results were that children who demonstrated emotion regulation skills in pretend play situations were rated as having better emotion regulation in daily life. Regular pretend play with a more experienced play partner was related to higher frequency of adaptive affect displays, empathy, and emotional self-awareness in daily interaction (Galyer and Evans, 2001).

*Interpersonal Processes* that are contained within pretend play include *empathy* - the process of expressing concern for others and taking the role of the other, *communication* - the process of expressing ideas and emotions to others, and *interpersonal schema* - the process of differentiating between one’s self and others and trusting in others (Russ, 2004). Object relations and attachment theorists propose that internal representations guide interpersonal functioning and relationships (Bowlby, 1973). These
theorists propose that children maintain cognitive representations derived from salient interpersonal events; from these experiences, children garner information to formulate their view of self and relational expectations. Interpersonal schema represent regularities in relational configurations that enable individuals to anticipate others’ responses to their own behavior. In an unconscious or latent way, interpersonal schemas perform a functional role in the organization of experiences and they influence social behavior (Shirk, 1998).

To assess children’s interpersonal schemata, projective techniques such as the Thematic Apperception Test (TAT; Murray, 1943), narratives, and sentence stems are often employed. Pretend play may also be a medium to assess children’s internal worlds. Niec and Russ (1996) investigated the relationships among affect and fantasy in play, expression of interpersonal themes in projective stories, and children’s interpersonal functioning. Forty-nine first through fourth grade children were administered the APS, the Children’s Apperceptive Story Telling Test (CAST, Schneider and Perney, 1990), and a brief IQ measure. Teachers and peers rated participants on likeability, disruptiveness, and withdrawal using the Pupil Evaluation Inventory (PEI; Pekarik, Prinz, Liebert, Weintraub, and Neale, 1976). Results demonstrated there was a significant positive relationship between the APS and frequency of interpersonal themes on the CAST. Children who were better players, expressing a wide variety of affective strategies, frequent positive affect, comfort in their play, and high quality fantasy were more likely to project themes involving people and relationships in their stories.

In 2002, Niec and Russ investigated the relationship among affect and fantasy in play, internal representations, and capacity for empathy. Eighty-six children in the third
and fourth grades completed the APS, the Thematic Apperception Task (TAT; Murray, 1943), and the Bryant Index of Empathy for Children (Bryant, 1982). Teacher ratings were also obtained for children’s empathy and helpfulness. The results demonstrated that quality of fantasy was related to self-reported empathy, indicating an important connection between imagination and children’s empathic responding. Fantasy and imagination in play may relate to the cognitive ability for perspective taking. The capacity to recognize and vicariously experience others’ emotions provides the basis for empathy. It should be noted that play processes appear to be related to these constructs even when controlling for intelligence.

In conducting this research, Niec and colleagues utilized a standardized measure to evaluate the children’s play. The Affect in Play Scale (APS; Russ, 1987, 1993, 2004) is a method of rating children’s play through observation of a standardized play task. The APS was developed to assess the amount and type of affective expression in children’s pretend play. It also measures cognitive processes of play such as fantasy and imagination. APS affect and fantasy scores have been found to be related to creativity (Russ and Grossman-McKee, 1990; Russ, Robins, and Christiano, 1999), coping (Christiano and Russ, 1996), adjustment (D'Angelo, 1995), and socio-emotional functioning (Niec and Russ, 1996; Seja and Russ, 1999).

The APS was specifically developed to assess the affective and cognitive dimensions of play, and was not designed to specifically tap interpersonal themes. To address this area, the Interpersonal Themes in Play System (ITPS; Niec et al., 2002) was developed. The ITPS is a standardized coding system for the APS task; it was designed to assess interpersonal themes in children’s pretend play. Object relations, social cognition,
and attachment theories informed the development of the system (e.g., Bowlby, 1973; Sandler and Sandler, 1978; Westen, 1991; Levine and Tuber, 1993). Although differences exist in the orientations and methodologies of these theories, all three share the assumption that internal representations or schema provide templates or scripts that guide interpersonal functioning (Westen, 1991; Lochman and Dodge, 1998). These representations are supposed to structure the child's interpersonal interactions in their pretend play, and as a result, the play is revelatory of the child’s interpersonal schema and functioning. The ITPS allows for the systematic assessment of children’s interpersonal themes in a minimally-structured play task; thus, children can freely impose their own configuration and content onto the play (Niec et al., 2002). The ITPS was designed to assess themes of cooperation between characters, expressions of affiliation, and expressions of neediness (Niec et al., 2002). The ITPS scale assesses eight interpersonal themes scored as frequencies during the five minute APS puppet play task: Interpersonal Conflict, Limit Setting, Proximity-Seeking, Help-Seeking, Affiliation, Cooperation, Sharing/Turn-Taking, and Empathy/Nurturance.

In a preliminary study (Niec et al., 2002), it appeared that interpersonal schemas in play could be assessed with this measure. Niec and colleagues recoded APS data gathered in a previous study with the new scoring system. Criteria of interpersonal functioning was measured by four assessment tools – Social Cognition and Object Relations Scale-Q sort (SCORS-Q; Westen, 1995) Bryant Index of Empathy (Bryant, 1982), teacher ratings of empathy and helpfulness. Results were that children’s scores on the ITPS significantly related to internal representations on the TAT and were also related to both self- and teacher-rated empathy. Given these findings, it remains
important to further validate the ITPS and to explore the relationships between interpersonal themes in play and other socio-emotional variables.

Prosocial Moral Reasoning

Research on moral judgment has focused primarily on reasoning about moral dilemmas in which rules or laws are fundamental to the decision making (Kohlberg, 1969, 1981; Rest, 1979). Over the past twenty years, research has attempted to understand positive morality and decision making (Eisenberg, 1986). Specifically, Eisenberg and colleagues have studied developmental patterns and correlates of prosocial moral reasoning. According to Eisenberg (1986), prosocial moral reasoning can be defined as reasoning about moral dilemmas in which one person’s needs or desires conflict with those of needy others in a context in which the role of prohibitions, authorities and their dictates, and formal obligations are minimal or absent. Prosocial moral reasoning emerges when an individual faces a decision to help others, with some cost to the self, when there is no explicit obligation to engage in helping. Individuals face such decisions every day—does one stop to help an elderly woman with her groceries when they know it will make them late for their own appointment? Should one come to the aid of a victim even if it might be dangerous to do so?

Children also face such dilemmas in their social arena of school, in peer relations, with siblings, etc. They continually face moral issues and transgressions involving kindness and unkindness, being ostracized, sharing, and following the rules. There exist tensions between a child’s own desires, issues of control and authority, and others’ welfare. Young children have views and justifications on the permissibility of actions, and they distinguish between different domains of morality conventions (Smetana, 1989;
Turiel, 2002). As a child make decisions, such dilemmas generate a large number of moral considerations and justifications that can be taxonomically organized (Eisenberg-Berg, 1979). In order to assess these categories and levels of children’s prosocial moral reasoning, Eisenberg and her colleagues have conducted a series of longitudinal and cross-sectional studies (Eisenberg, 1979; Eisenberg and Roth, 1980; Eisenberg, Lennon, and Roth, 1983; Eisenberg et al., 1987; Eisenberg, Miller, Shell, McNalley, and Shea, 1991; Eisenberg, Carlo, Murphy, and Van Court, 1995; Eisenberg et al., 2002) which led to the development of a prosocial moral reasoning task and scoring system (Eisenberg-Berg and Hand, 1979). This task involves presenting moral reasoning scenarios to children in order to elicit decision making and reasoning. In each dilemma, the needs or wants of one individual or group are in direct conflict with those of another individual or group in a context in which the roles of prohibitions, punishments, authorities, and other formal criteria/obligations are irrelevant or minimized (Eisenberg, 1986). Employing this task, Eisenberg and colleagues have delineated six categories of prosocial moral reasoning. (See Table 1.) In the first category, *authority and punishment reasoning*, conscience is equated with anxiety about punishment. In using this justification, avoidance of punishment and unquestioning deference to power are valued in their own right. The physical consequences of an action determine its goodness regardless of human values and needs. For example, a child may say that she would not leave her sandbox to help another child because her mother has told her not to leave the yard. In the second category, *hedonism*, a child is motivated by considerations of selfish gain for himself or others with whom he is identified with; for example, a child would go to a birthday party rather than help a child who is injured because of his own desire for “the
cake” or “he likes games” which are at the party. With *needs-oriented reasoning*, the child labels or responds to the physical or psychological needs of others and appears to consider these needs in his or her reasoning. In the fourth category, *pragmatic reasoning*, the child justifies a given course of action with amoral, practical considerations (reasons unrelated to fulfilling another’s needs). The fifth category, *stereotypic reasoning*, involves the child justifying a given course of action with stereotyped conceptions of good and bad behavior and/or persons. The final category involves *approval-oriented reasoning* in which the child considers others’ approval and acceptance in justifying a given course of action.

As illustrated above, the authority and punishment, hedonistic, and approval-oriented categories focus on reasoning about immediate or delayed consequences for the protagonist, while the needs-oriented category involves considerations of the potential recipient’s needs. Pragmatic and stereotypic judgments focus on factors other than the protagonist’s or the person-in-need.

Eisenberg’s research on children’s prosocial moral reasoning has revealed that not only can the justifications be categorized; it also appears that prosocial moral reasoning follows a variable, developmental trajectory with five major age-related levels in the development of thinking about prosocial moral issues. (See Table 2.) Level 1 reasoning, reflecting a *hedonistic and self-oriented orientation*, is predominant only in the responses of preschoolers and young elementary school children. Eisenberg-Berg’s (1979) early cross-sectional study and various longitudinal research supported this developmental trend (Eisenberg-Berg and Roth, 1980; Eisenberg et al., 1983) and demonstrated that the prosocial moral reasoning of elementary school children tended to focus on hedonistic,
stereotyped, and needs-oriented concerns while empathetic needs and approval-oriented reasoning increased with age. Level 2 involves *needs-oriented orientation* in which the child expresses concern for the physical, material, and psychological needs of others even though the other’s needs conflict with one’s own needs. This level of concern or reasoning is qualitatively distinct from other levels as the concern is expressed without evidence of self-reflective role-taking or reference to internalization. Level 3 is characterized by *approval and interpersonal orientation and/or stereotyped orientation*. This level can be described as involving stereotyped images of good and bad persons and considerations of others’ approval and acceptance are used as justification the prosocial action. This is found to be the predominant mode for some elementary school and high school students. By high school, children often use Level 4, *self-reflective empathic reasoning*. Children transition to gauging their prosocial decisions and responses based on internalized values and responsibility to society as a whole and this transition is labeled Level 4a. Level 5 is described as the *strongly internalized stage* as justifications for helping or not helping are based on internalized values, norms, or responsibilities. Higher levels of prosocial moral reasoning appear to involve more perspective taking. Prosocial moral development moves along a continuum from self-oriented to other-oriented, from external to internal concern.

In efforts to establish criterion validity for this task and prosocial moral reasoning, researchers have examined the relationship between prosocial moral reasoning and prosocial behavior. It appears that there is some relation between behavior and reasoning, although it is not present in all situations (Eisenberg et al., 1991; Eisenberg et al., 1995; Eisenberg and Fabes, 1998; Eisenberg et al., 2002). In studies of preschoolers’
naturally occurring prosocial behaviors, moral reasoning at levels reflecting empathic or egoistic considerations, has been more closely related to spontaneous sharing behaviors than to helping behaviors (Eisenberg-Hand, 1979; Eisenberg et al., 1984). In controlled studies involving elementary-school and high-school students, prosocial moral reasoning has been more highly correlated with prosocial behaviors involving a cost (e.g., donating or volunteering time after school) than those that are low in cost (e.g. helping pick up articles from the floor; Eisenberg et al., 1984). The relation between prosocial moral reasoning and prosocial behavior is mediated, in part, by perceived costliness of the prosocial act. Eisenberg and Shell (1986) examined the degree of association between preschoolers’ and third graders’ prosocial moral reasoning and behavior as a function of cost of the helping act. Data suggest there is a moderate positive association between individuals’ moral reasoning and their prosocial behavior in certain circumstances, and that this relationship is mediated by cost or value. Specifically, Wyatt and Carlo (2002) demonstrated that other-oriented and higher levels of prosocial moral reasoning are associated with high cost behaviors but not low cost helping behaviors.

Children’s capacities for internalizing and acting morally depend on many basic aspects of cognitive and emotional development, including the use of language, the development of empathy (Hoffman, 2000) and sympathy, the growth of emotion regulation (Eisenberg et al., 1995), and the understanding of one’s own mind and how their own emotional or mental state differs from another’s (Ashington, 1993).

**Prosocial Moral Reasoning and Empathy**

Empathy incorporates several components, including the ability to recognize, take the perspective of, and respond to another’s emotions with the involvement of
sympathetic concern (Bryant, 1982). Researchers have posited a causal relationship between empathy and altruism. Sympathetic considerations are prominent in many individual’s prosocial moral reasoning. Therefore, it is not surprising that the degree of empathic response has been associated with the level or mode of prosocial moral reasoning (Eisenberg, 1986). The available research asserts that the level of prosocial moral reasoning is positively associated with self-report of empathic responsiveness (Eisenberg, Shell, and Pasternack, 1987). It was found that young children’s scores on the Bryant Empathy Measure (Bryant, 1982) were positively associated with needs-oriented reasoning. Results demonstrate that empathy was found to be positively related to needs-oriented judgments and to higher level prosocial reasoning and that empathy was negatively related to hedonistic reasoning. This suggests that sympathetic responsiveness may enhance the development of moral reasoning based on prosocial values and, in turn, facilitate the use of such reasoning once the child ages to the stage where the capacity for such reasoning is possible.

As mentioned earlier, perspective taking is a cognitive element of empathy. Perspective taking can be defined as the ability to recognize the emotional state of another person, particularly when the emotion differs from one’s own (Harris, 2000). This empathic ability to recognize the emotions of other people, and to differentiate those emotions form one’s own, is an important facet of positive social interactions (Dunn and Hughes, 1998). Some view the ability to assume the perspective of another as a component of empathy and as a possible determinant of level of moral judgment (e.g. Kohlberg, 1969). Research appears to support this assertion; just as age-related changes in perspective taking mediate the development of moral judgment, moral reasoning
becomes more sophisticated with age (Eisenberg, 1986, Eisenberg, Zhou, and Koller, 2001). In both longitudinal and cross-sectional research studies in North America, researchers have found that children’s and adolescent’s prosocial moral reasoning becomes less hedonistic and more abstract and internalized with age. Self-reflective perspective taking and internalized norm-related and other-oriented judgments tend to emerge in late childhood and increase in use through adolescence (Eisenberg et al., 1987, 1991, 1995). It is possible that once individuals have acquired the basic perspective taking ability in early childhood, it is this ability and motivation to identify with another’s perspective that affects prosocial moral reasoning (Eisenberg, Zhou, and Koller, 2001).

A cross-cultural study by Eisenberg, Zhou, and Koller (2001) examined demographic variables and individual differences in sympathy and perspective taking that related to or predicted the level of prosocial moral judgment and self-reported prosocial behaviors. They also examined the mediating and moderating relations among predictors. Results indicated that self-reported perspective taking predicted prosocial moral reasoning and sympathy. It does appear that the tendency to take another’s perspective and to sympathize is related to prosocial moral reasoning. It has been demonstrated that perspective taking (Walker (1980) and emotional understanding (Eisenberg et al., 1995; Dunn et al., 2005) are necessary assets for transitioning through moral development stages. Children’s capacity for empathy and emotional understanding allows them to control and comprehend their own emotions, to more accurately identify with and react to other’s emotional expressions, and to better anticipate the impact of their own emotional expressions (Harris, 1985; Thompson, 1989).
Pretend Play and Prosocial Moral Reasoning

Research has demonstrated that prosocial moral reasoning and pretend play are both related to socio-emotional processes of emotional understanding, perspective taking, and empathy (Eisenberg, 1986; Eisenberg et al., 1987; Fisher, 1992; Dunn, Brown, and Maguire, 1995; Seja and Russ, 1999; Harris, 2000; Eisenberg, Zhou and Koller, 2001; Niec and Russ, 2002). Furthermore, a relationship has been found between joint or dyadic pretend play and prosocial moral reasoning.

Research has investigated the relationship between friendships, shared pretend play, and moral sensibility. Three longitudinal studies of young friends showed that children with particularly close, intimate friendships were more likely to give interpersonally oriented justifications concerning moral issues (Dunn et al., 1995; Dunn, Cutting and Demetriou, 2000; Hughes and Dunn, 2000). These studies highlighted the connection between children’s shared imaginative play in the preschool years and their moral considerations later in childhood. It appears that shared pretend play characterizes both close friendships and close sibling relationships and that pretend play is related to sensitivity to moral concerns (Dunn and Cutting, 1999; Dunn and Hughes, 2001; Howe, Rinaldi, Jennings, and Petrakos, 2002).

These studies demonstrate a relationship between pretend play and moral sensibility in the context of shared social interactions. Yet, there is a lack of research that directly connects solitary pretend play processes to prosocial moral reasoning abilities. The research does not isolate whether it is the shared social interaction that is related to moral sensibility or if it is the pretend play processes themselves. Given that solitary pretend play and prosocial moral reasoning relate to similar socio-emotional constructs, it
makes theoretical sense that play processes should relate to prosocial moral reasoning. In pretend play, a child can engage in the discovery of the social world. In play, children can try out prosocial behaviors of sharing, empathy, helping, etc. Utilizing characters, children can construct dramatic narratives around moral issues and interpersonal conflicts, and engage in moral decision making. They can experience imaginary or real-life social transgressions and sequelae in the safe forum of play. Within pretend play, children can experience the accompanying emotions of moral decisions and practice how those actions and feelings can impact others. Pretend play can then be seen as a medium that provides insight into the child’s internal interpersonal working models which guides their external interpersonal functioning. In order to utilize this medium, standardized measures should be developed to better understand the interpersonal components to play.

Summary and Hypotheses

The current study served two main purposes: (1) to investigate the relationship between pretend play processes and prosocial moral reasoning and (2) to provide further validation evidence for the ITPS scale. Research has shown that both pretend play and prosocial moral reasoning relate to the criteria of emotional understanding, perspective taking, and empathy. Furthermore, joint pretend play has been demonstrated to be related to prosocial moral reasoning. It is likely that there are shared processes amongst pretend play and prosocial moral reasoning. It was hypothesized that the ITPS scale scores would be related to prosocial moral reasoning in that children who showed more prosocial behaviors in their play would also demonstrate more advanced moral reasoning. In addition, this study investigated the established relationship among prosocial moral reasoning, empathy, and prosocial behavior.
Method

Participants

Participants included 58 children (34 males, 24 females) between the ages of 6 and 10 years of age ($M=7$ years, $SD=1.39$ years) drawn from the first through fourth grades (19 first graders, 17 second graders, 10 third graders, 12 fourth graders) in two Cleveland parochial schools. The racial-ethnic composition of the sample was as follows: 1.7% Asian, 41.4% African American, and 44.8% Caucasian. All participants were in a mainstream classroom and the PPVT results indicated an average score for the children’s receptive vocabulary ability ($M=100.97$, $SD=11.97$). Participants were enrolled as part of a larger study that was being conducted in order to further validate the ITPS and to better understand its correlates.

Prior to data collection, informed consent was collected from parents through packets sent home through the schools. If children returned the signed consent forms, the children were then assented to participate in the project. The participation rate for the two schools was 40% with no significant differences among participation rates for each school.

Procedure

Children completed the protocol individually during school hours. The protocol included, in the following order, a five minute puppet-play task (Affect in Play Scale), a self-report measure of empathy (Bryant Index of Empathy), the Peabody Picture Vocabulary Test Third Edition (PPVT-III, Dunn and Dunn, 1997), the prosocial moral reasoning dilemmas (Eisenberg-Berg, 1979; Eisenberg-Berg and Hand, 1979; Eisenberg, 1986), and prosocial behavior task (Stewart and McBride-Chang, 2000). The examiner
read the self-report empathy measure to prevent reading difficulties from interfering with responses. The PPVT, a wide-range measure of receptive vocabulary for standard English, was administered to control for verbal ability. All measures, except the PPVT-III, are included in the appendix.

Measures

*Interpersonal Themes in Play System.* The APS, developed for children 6 to 10 years of age, assesses affective and cognitive components of fantasy play through the use of a standardized play task (Russ, 1987; 1993). In this task, children were presented with two neutral human puppets (a boy and a girl) and several blocks, and were then instructed with the following:

I'm here to learn how children play. I have here two puppets and would like you to play with them any way you like for five minutes. For example, you can have the puppets do something together. I also have some blocks that you can use. Be sure to have the puppets talk out loud.

This task was videotaped to ensure accurate scoring after completion of the task. The APS task was scored using the ITPS scoring system. The ITPS was developed by Larissa Niec to tap children's internal processes as expressed through fantasy play during the APS play task. The scale is comprised of eight interpersonal themes scored as frequencies during the five minute puppet play task: Interpersonal Conflict, Limit Setting, Proximity-Seeking, Help-Seeking, Affiliation, Cooperation, Sharing/Turn-Taking, and Empathy/Nurturance. Themes may be scored based on verbal or nonverbal play behaviors. For the purpose of this study, investigators used the following ITPS scores: Cooperation, Affiliation, Empathy/Nurturance, Sharing/Turn-Taking, the Prosocial Composite Score, and the Affect Tone in Interpersonal Interactions in Play score.

Cooperation is scored when characters express the desire to work toward a common goal
either verbally (e.g., "If we work together, we can make the world better.") or nonverbally (e.g., helping each other to build a tower). Affiliation is scored when characters indicate an association or an alliance with another character (e.g. “I really like spending time with him”, hugging, or dancing). Empathy/Nurturance is scored when one character expresses components of empathy or offers support to another character (e.g. “Are you OK?”, “I’ll help.”). Sharing/Turn-Taking is scored for a verbal or nonverbal expression in which characters share or take turns. A composite score (Prosocial Composite) of the four prosocial themes (Affiliation, Cooperation, Empathy, and Sharing/Turn-taking) was created to manage the problem of themes that occur in low frequency during the five minute play. A global score, Affect-tone of Interpersonal Interactions in Play, assesses the extent to which the child's play represents interactions as unpredictable, hostile, and dangerous or safe, stable, and nurturing. Affect-tone of Interpersonal Interactions in Play is scored on a Likert scale of one to five with lower scores indicating more hostile representations. It should be noted that if children do not play (defined as no play after two minutes), they receive scores of zero for individual theme scores and scores of one for the composite and global scores.

Interrater reliability for the ITPS is based on a preliminary study (Niec et al, 2002). The interrater reliability of seven of the eight theme scores and the global score ranged from adequate ($r(20) = .69$ for Sharing/Turn Taking) to excellent ($r(20) = .99$ for Interpersonal Conflict). As discussed earlier, children's ITPS themes related to interpersonal functioning as measured by four assessment tools – Social Cognition and Object Relations Scale-Q sort, Bryant Index of Empathy, teacher ratings of empathy and helpfulness – using three different methods of assessment – projective stories, self-report,
teacher-report. There was no relationship between ITPS scores and children's verbal achievement in the preliminary study.

**Prosocial Moral Reasoning Task.** Nancy Eisenberg (Eisenberg-Berg, 1979; Eisenberg-Berg and Hand, 1979; Eisenberg, 1986) designed this task in order to assess the categories and developmental levels of prosocial moral reasoning described earlier. To complete the task, children were presented with four prosocial dilemmas in order to elicit their reasoning regarding their decision making. The dilemmas included stories about 1) a child playing in the sandbox who views another child being bullied and has to decide whether or not to assist, 2) a child who is asked to assist another child whose leg is injured instead of attending a party, 3) a farmer who is asked to share food supplies after a flood, and 4) man who is asked to give up winning a competition to help crippled children. In each dilemma, the needs or wants of one individual or group are in direct conflict with those of another individual or group in a context in which the roles of prohibitions, punishments, authorities, and other formal criteria/obligations are irrelevant or minimized (Eisenberg, 1986). An example of such dilemma used with younger children in this project is as follows:

One day a girl (boy) named Mary (Eric) was going to a friend’s birthday part. On her (his) way she (he) saw a girl (boy) who had fallen down and hurt his (her) leg. The child asked Mary to go to her house and get her parents so that the parents could come and take her to the doctor. But if Mary did run and get the child’s parents, she would be late for the birthday party and miss the ice cream, cake and all the games. What should Mary do? Why?

Prompts were used to best capture the child’s reasons for helping or not helping. Justifications used to support the decision to engage in a behavior were coded separately from those used to justify the decision not to assist.
A frequency score was obtained for each category of reasoning that was described earlier-- Authority and Punishment Reasoning, Hedonism, Needs-oriented, Pragmatic Reasoning, Stereotypic Reasoning, Approval-oriented reasoning. (See Table 1.) For each category, each child is assigned a score indicating the frequency with which he/she uses each of the various types of reasoning when discussing the pros and cons of helping the other in the story (1 = no apparent use of a particular type of reasoning; 2=use of category in 1 story, 3=use of category in 2 stories, 4=use of category in 3 stories, 5=use of category in 4 stories).

Interrater reliability for scoring of individual categories of the preschool and elementary school years ranges from .79 to 1.00 with the majority above .85 (Eisenberg, 1987). Validity studies were previously reviewed. For example, previous studies have demonstrated that needs-oriented reasoning is correlated with a Bryant Index of Empathy in 7-8 year olds (Eisenberg et al., 1987); needs oriented reasoning is related to prosocial behavior (Eisenberg-berg and Hand, 1979; Eisenberg et al., 1987); and needs-oriented and hedonistic reasoning are negatively related (Eisenberg-berg and Hand, 1979).

*Bryant Index of Empathy for Children (Bryant, 1982).* The Bryant Index of Empathy for Children is a 22 item measure assessing cognitive and affective components of empathy (Bryant, 1982; Eisenberg and Miller, 1987). Children answered yes or no to items that tap both positive and negative affective responses (e.g., "Even when I don't know why someone is laughing, I laugh too"; “I get upset when I see a boy (girl) being hurt.”). One total empathy score was obtained, with higher scores implying greater empathy. Internal consistency and test-retest reliability of the scale increase with the age of the respondent. Across a two-week interval, test-retest reliability ranged from $r = .74$.
to \( r = .86 \) for children in first through seventh grade (Bryant, 1982). In a sample of 21 fourth and fifth grade boys, the stability of the measure over one year was \( r = .52 \) (Schaefer and Russ, 2002). The scale has been found to correlate positively with other affective measures of empathy (Bryant, 1982; Feshbach, 1987). Bryant found no relation between this measure and reading achievement scores or social desirability. Gender differences have been found on this scale with females scoring higher than males (Bryant, 1982).

Prosocial Behavior Task. A donation task has been adapted by Niec from the research of Stewart and McBride-Chang (2000). At the end of the session, children were given a dozen stickers to thank them for their participation. They were informed that if they chose to, they could donate some of their gifts to the children in their classrooms who were not participating in the study. The child believed that their donation would be anonymous. Stickers were chosen as the item to measure donation as they may be obtained in reasonably large numbers of approximately equal size and shape. To control for value to the donor, we asked each child to indicate whether he or she likes stickers on a 3-point scale (not at all, a little bit, very much). This donation task has only been used in one study and donating was related to moral reasoning, but not to empathy (Stewart and McBride-Chang, 2000). For purposes in the present study, investigators used the two variables of whether or not the child donated and the amount donated.

Specific Hypotheses (See Table 3.)

1. It was hypothesized that the interpersonal themes in play would be related to the categories of prosocial moral reasoning. Children who have more prosocial components
to their play should be also employing more advanced prosocial moral reasoning strategies.

a. The Prosocial Composite Score would be significantly positively related to the needs-oriented reasoning score. The Prosocial Composite Score would be significantly negatively related to the hedonism reasoning score.

b. The individual theme scores that constitute the Prosocial Composite score on the ITPS would be associated with the category scores of prosocial moral reasoning. Cooperation would be significantly positively correlated with Needs-oriented moral reasoning. Sharing/Turn-Taking would be significantly positively correlated with Needs-oriented moral reasoning. Empathy/Nurturance would be significantly positively correlated with Needs-oriented moral reasoning. Cooperation, Sharing/Turn-Taking and Empathy/Nurturance would be significantly negatively correlated with Hedonism reasoning.

c. The Affect-Tone of Interpersonal Actions in Play would be significantly positively related to the needs-oriented reasoning score. Also, the Affect-Tone of Interpersonal Actions in Play would be significantly negatively related to the hedonism reasoning score.

2. It was hypothesized that category scores on the prosocial moral reasoning tasks would be significantly positively related to scores on the Bryant empathy measure. Specifically, it was hypothesized that needs-oriented moral reasoning score would be significantly positively related with empathy scores. Hedonistic reasoning scores would be significantly negatively related with empathy scores.
3. It was hypothesized that category scores on the prosocial moral reasoning tasks would be related with scores on the donation task. It was hypothesized that hedonistic reasoning scores would be negatively related to donating, and needs-oriented reasoning scores would be positively related to donating.

Data was analyzed for age trends as well. Exploratory analyses were conducted to investigate the ITPS scores and other moral reasoning categories (e.g., Authority/Punishment, Pragmatic, Stereotyped, Approval-oriented).

Results

Sample characteristics and inter-rater reliabilities

Table 4 and 5 presents the means and standard deviations of the ITPS and the outcome measures of prosocial moral reasoning, empathy and donation. There were no significant mean differences on any of the measures between the two schools.

To determine interrater reliability for the ITPS, six protocols were randomly chosen from an established data set and scored. The purpose of this process was to ensure that the coder was sufficiently trained to begin scoring. The interrater reliability of four theme scores were in the adequate to excellent range, $r(6)=.87$ for Sharing and Turn Taking, $r(6)=.93$ for Affiliation, $r(6)=.94$ for Cooperation, $r(6)=.98$ for Empathy and Nurturance. The interrater reliability for the global score of Affect Tone was $r(6)=.78$ and $r(6)=.97$ for the Prosocial Composite. Interrater reliability will be completed on 20 randomly chosen ITPS protocols.

Intra-correlations among the ITPS scales were nonsignificant to strong, ranging from $r(58)=.08$ to $r(58)=.68$. (See Table 6.) There was no significant relationship
between ITPS scores and children’s verbal achievement as measured by the PPVT-III. See Table 9.

To determine interrater reliability for the prosocial moral reasoning task, 20 protocols were randomly chosen from the sample and independently scored by two clinical psychology graduate students. Interrater reliabilities across the stories were as follows: $r(20)= 1.00$ for Story 1, $r(20)=.91$ for Story 2, $r(20)=.77$ for Story 3, and $r(20)=.91$ for Story Four. Intra-correlations among the scores were nonsignificant to strong, ranging from $(r(58)= -.00)$ to $(r(58)= -.50)$. (See Table 7.) There was no significant relationship between prosocial moral reasoning scores and children’s verbal achievement as measured by the PPVT-III.

**Hypothesized relationships:**

We computed Pearson product moment correlations for the hypothesized relationships using one-tailed tests of significance and $p$ value of .05. In order to address the issue of low frequency of some play themes and to reduce the number of correlations, we used the summed composite (Prosocial Composite) of the prosocial themes: affiliation, cooperation, empathy, and sharing/turn-taking. The following prosocial moral reasoning categories were low in frequency (See Table 8.) and were therefore removed from analyses: Authority/Punishment, Pragmatic, and Approval-oriented. For the donation task we used 1) the dichotomous variable of whether or not the child donated and 2) the number of the stickers that the child donated.

An examination of the distribution of the scores found that following ITPS variables were all positively skewed: Affiliation, Cooperation, Sharing/Turn-Taking, and Empathy/Nurturance. The following prosocial moral reasoning variables were also
positively skewed Authority/Punishment, Hedonism, Needs-oriented, Pragmatic, Stereotyped, and Approval-oriented. The variable, Amount donated, was also positively skewed. We computed both square root and log transformations on each of these scores yet the transformations did not bring the distributions enough towards normal. Additionally, there were no changes in the correlations when using the transformed data.

We also computed nonparametric statistics (e.g., spearman rho) and the correlations were similar in magnitude and direction. Therefore, original data were used in all analyses.

Given that this was an exploratory study and there were a priori hypotheses, there were no Bonferoni corrections used with the data.

First, looking at the ITPS scores and prosocial moral reasoning, the Prosocial Composite in play did not relate to needs-oriented reasoning ($r(58)=.08$) or hedonistic reasoning ($r(58)=-.18$). However, looking at the individual theme scores, Cooperation was significantly positively related to stereotyped reasoning ($r(58)=-.25$) and Sharing and Turn Taking was significantly negatively related to hedonistic reasoning ($r(58)=-.26$). Affect-Tone of Interactions was not significantly related to needs-oriented reasoning ($r(58)=.18$) or hedonistic reasoning ($r(58)=-.07$). See Table 9.

Second, we investigated the relationship between prosocial moral reasoning, empathy, and donation. There were no significant relationships among these variables. (See Table 10.) A one-way analysis of variance (ANOVA) was calculated to analyze any group differences in the use of hedonism or needs-oriented reasoning among the children who chose to donate or not. The analyses were not significant for hedonism ($F(1, 56) = .58, p > .05$) or for needs-oriented reasoning ($F(1, 56) = .41, p < .05$).

Age Trends
There was a significant relationship between age and the prosocial themes in play. Age was significantly positively related to the Prosocial Composite ($r(58)=.37, p<.01$) and Affect-Tone of Interactions ($r(58)=.26$). Older children also displayed more cooperative play ($r(58)=.39, p<.01$). Age was significantly positively related to how many stickers the child donated ($r(58)=.30$).

**Exploratory Analyses**

Because pretend play is a more natural activity for younger children and the APS task was designed for children in grades first through third (Russ, 2004), fourth graders were removed from analyses and we again computed Pearson product moment correlations. The Prosocial Composite was significantly negatively related to hedonism ($r(46)=-.33$). Sharing/Turn-Taking was also significantly negatively related to hedonism ($r(46)=-.25$) and significantly positively related to stereotyped reasoning ($r(46)=.38, p<.01$). Affiliation was significantly positively related to needs-oriented reasoning ($r(46)=.28$). See Table 11.

This sample had a high number of children who refused to play or who were stopped after two minutes of no play. Typical samples have a 92% play rate (Russ, 2004) and this sample had an 86% play rate. Furthermore, it is unclear if it makes theoretical sense to give these children zeros for theme scores as the instructions direct the coder to do. Given this, children who did not play were taken out of the analyses. We again computed Pearson product moment correlations on the hypothesized relationships using one-tailed tests of significance and a $p$ value of .05. Sharing and Turn Taking was significantly negatively related to hedonism ($r(40)=-.34$) and significantly positively related to stereotyped reasoning ($r(50)=.41, p<.01$). See Table 12.
It should be noted that partial correlations, controlling for age, were conducted on all significant relationships for play themes and prosocial moral reasoning. After partially out age, relationships were no longer significant.

Discussion

This study investigated the relationship between pretend play processes and prosocial moral reasoning. Additionally, this study assessed the construct validity of the Interpersonal Themes in Play System (Niec et al., 2002). Results of this study found some support for the hypothesis that interpersonal themes in play are related to prosocial moral reasoning. The results also support the potential use of the ITPS as an evaluative measure of children’s interpersonal representations and suggest that it warrants future research.

*Interpersonal themes in play and prosocial moral reasoning*

Initial hypotheses focused on the summed composite of prosocial scores and the global affect tone score in play. It was hypothesized that the Prosocial Composite and the Affect-Tone in Interactions would be robust indicators of interpersonal themes in play and that these scores would be related to the needs-oriented and hedonistic moral reasoning categories. Data from the entire sample did not provide support for this hypothesis; however, the Prosocial Composite was significantly negatively related to hedonistic reasoning among the subsample of younger children (i.e., grades 1-3). Children who were displaying more prosocial themes in their play were also employing less self-oriented reasoning. This finding may be more representative of the relationship between play themes and prosocial moral reasoning as the APS task was designed for children in first through third grades.
Results indicated that some individual theme scores were related to the reasoning categories. Among the sub-sample of younger children, Sharing/Turn-Taking was significantly related to hedonistic reasoning. Children who demonstrated more sharing and turn-taking behaviors in their play utilized less hedonistic reasoning. Affiliation was significantly positively related to needs-oriented reasoning. That is, children displaying a desire for contact with others in play are using reasoning strategies that focus on the physical and psychological needs of others. In summary, children with more prosocial play tend to display more prosocial and other-oriented reasoning strategies, especially among younger children.

Analyses were also conducted with the subgroup of players in the sample (88%). Data again supported the notion that some interpersonal themes in play were related to prosocial moral reasoning. Specifically, sharing behaviors in play were significantly negatively related to hedonistic reasoning and significantly positively related to stereotyped reasoning. That is, children who demonstrated more sharing behaviors in play were also employed more advanced moral reasoning.

Results showed that the Affect-Tone in Interactions variable did not relate to any variable in this study. Given that Affect-Tone in Interactions variable demonstrated a robust pattern of relationships with internal representations and empathy in the preliminary ITPS study, the lack of findings in the present study was interesting. It is possible that this variable is not sensitive enough at the endpoints (i.e., it is not doing an adequate job of capturing children who have very hostile play or very positive play). Additionally, it is possible that the middle score (a three) which is to indicate “mildly negative to neutral” is actually capturing a child’s healthy, balanced internal framework.
Findings demonstrated a significant relationship between age and prosocial themes in play. Older children demonstrated more prosocial play overall, and specifically they were more cooperative in their play. These age trends are consistent with the understanding that as children develop they become more prosocial in their behavior (Eisenberg et al., 1995).

*Prosocial Moral Reasoning*

Several studies have repeatedly demonstrated a relationship between prosocial moral reasoning, empathy, and donation (Eisenberg et al., 1984; Eisenberg, 1986; Eisenberg, Shell, Pasternack, 1987). In the present study, there were no significant relationships between these criteria. Examination of previous studies that found these relationships show similarities in sample characteristics and in the means of the measures with the present sample. It is possible that the longitudinal nature of the previous research impacted the results in some way. Another possibility is that previous studies utilized naturalistic observation of sharing and/or a sharing task that more closely resembled the prosocial moral reasoning task itself (e.g., children were asked give up their recess time in order to help a child in need). Also, in previous studies, other-oriented and higher levels of prosocial moral reasoning were associated with high cost behaviors but not low cost helping behaviors (Wyatt and Carlo, 2002). Therefore, it is possible that the sticker-sharing was too low cost to produce an effect. Finally, it is also important to note that the Stewart and McBride-Chang (2000) behavioral task is a relatively new, not well validated task.

Findings did demonstrate a significant relationship between age, prosocial moral reasoning, and donation. Age was related to stereotyped reasoning and to the amount the
child donated. Additionally, certain moral reasoning categories were utilized more frequently than others. That is, children utilized the categories of hedonism, needs-oriented, and stereotyped most often. The demonstrated age trends and the usage pattern are consistent with Eisenberg’s research and are congruent with the established developmental nature of prosocial moral reasoning. These findings are consistent with Eisenberg’s cross-sectional and longitudinal research that shows developmental component to moral reasoning (Eisenberg, 1979; Eisenberg and Roth, 1980; Eisenberg, Lennon, and Roth, 1983; Eisenberg et al., 1987; Eisenberg, Miller, Shell, McAlley, and Shea, 1991; Eisenberg, Carlo, Murphy, and Van Court, 1995; Eisenberg et al., 2002).

Data also demonstrated no significant relationship between prosocial moral reasoning and verbal achievement. There was only one study found in the literature that examined the relationship between intelligence and prosocial moral reasoning in high school students. The results of that study found that intelligence was related to prosocial moral reasoning. Thus, it is interesting that the current study did not find a relationship between prosocial moral reasoning and verbal achievement. Theoretically, the overall prosocial moral reasoning literature does suggest a cognitive component to prosocial moral reasoning. It may be that prosocial moral reasoning is, in fact, independent of intelligence and/or verbal achievement. Alternatively, prosocial moral reasoning may be related to cognitive abilities that current intelligence instruments do not measure. Therefore, it remains necessary to explore the relationship between prosocial moral reasoning and intelligence and/or verbal achievement with younger children.

It should be noted that partial correlations, controlling for age, were conducted on all significant relationships for play themes and prosocial moral reasoning. In doing this,
relationships were found to be no longer significant. However, it makes theoretical sense that prosocial themes and behaviors would operate on a developmental continuum. The finding that age did relate to some of the prosocial themes in play makes theoretical sense and contributes to the validity of the ITPS.

Refinements to the ITPS

The ITPS is a promising new measure. After completing this study, it has become apparent that certain refinements may improve the utility of this assessment tool. Based on the intra-scale correlations (See Table 6.), certain scale adjustments may be warranted. For example, in theory, affiliation should be related to other prosocial themes but it did not. Additionally, given that the Prosocial Composite did not relate to criteria in this study and certain individual themes such as Sharing/Turn-Taking did, it may be better to utilize the individual scores rather than a summed composite. If the composite score was eliminated, other steps would be necessary to deal with the issue of low frequency of the theme scores. For example, it may be useful to use broader categories and less delineation. Currently, the rater distinguishes between proximity seeking (defined as desire to be close to another character) and affiliation (an association or alliance with another). It is possible that these two categories could be combined into a single variable. Also, as children may only be able to play for a limited amount time in controlled circumstances but may need a longer duration to display interpersonal schemas, it may be useful to have the child play over two five minutes periods. The individual theme scores could then be summed across the two periods.

Also, under the current scoring system, a child is given zeros for individual theme scores and a one for global and composite scores. This may not make theoretical sense as
this implies that because the child does not play, he does not have internal processes or representations. It may be that these children should be excluded from the study and/or analyses.

It was also noted that the scoring system was labor-intensive. There are several theme scores and several delineations amongst the scores. It may be more efficient to eliminate underused categories so that the coder can focus their efforts. This would also help ameliorate the issue of low frequency of theme scores as discussed above.

Limitations and Future Directions

Some limitations with this study should be noted. Though this study had adequate power, the sample size was still small. Also, as noted earlier, these data were heavily skewed. Finally, because we computed a large number of correlations and the demonstrated correlations were small in magnitude, interpretations should be made with some caution. It should be again noted, however, that significant findings formed a consistent pattern as hypothesized.

Given the affective and cognitive components to prosocial moral reasoning, the next step with this data is to assess the children’s pretend play with the APS and to see how those processes within play relate to the moral reasoning categories. It may also be interesting to replicate this study using specific props or puppets instead of neutral materials. In doing this, children may project different or more specific interpersonal processes. Future research should cross-validate the ITPS with additional samples as well as clinical samples.
Implications

Pretend play is a safe and projective medium for children to display their depictions of interpersonal interactions. Play behaviors and language provide insight into a child’s representation of themselves and others, and it is these representations that can be indicative and predictive of behavior. This study demonstrated that pretend play allows for the projection of children’s interpersonal schema. The results of this study support the promising development and potential use of the ITPS for the standardized assessment of children’s interpersonal processes.

Behaviors in pretend play relate to some aspects of moral reasoning. Results indicated a relationship between several interpersonal themes and prosocial moral reasoning. Given the relationship between moral reasoning skills, prosocial behaviors, and social support (Knell, 1993; Shirk and Russell, 1996; Carlo, 2006), pretend play could be used to assess a child’s interpersonal schema with a measure like the ITPS. Pretend play can also be seen as a tool to develop and master prosocial behaviors. Pretend play has clinical utility as an intervention and preventative technique.
Appendix A: Measures

Interpersonal Themes in Play
A Coding System for Children’s Fantasy Play

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Interpersonal Themes in Play System

The ITPS is being developed to assess children's representations of relationships as expressed through their fantasy play. The preliminary coding system includes nine interpersonal themes (Interpersonal Conflict, Limit Setting, Proximity-Seeking, Help-Seeking, Affiliation, Cooperation, Sharing/Turn-Taking, Empathy/Nurturance, Rejection/Abandonment/Grief) and two global scores (Affect-Tone of Interpersonal Interactions, View of Self). Development of scale scores was informed by attachment, object relations, and social cognition theories. This is a description of the preliminary categories.

Interpersonal Themes

Interpersonal Conflict

**Definition:** A verbal or nonverbal unit in which one character expresses discord with another character who is present or not present. Aggression aimed towards a personal object (e.g., a character knocks down their own blocks) and general themes of aggression (e.g., I have a knife) would not be scored.

**Examples**
- I don't like you.
- You make me mad.
- (Punching, hitting, other physical aggression aimed towards a character or character's property)
- I'm gonna knock down your tower.
- No, I don't want to do that.
- You're not my friend.
- Don't touch my tower.
- You can't play with my toys.

Direction

**Definition:** A unit of expression in which one character directs the behavior of another through verbal (e.g., commands) or nonverbal (e.g., pointing, gesturing) communication. Direction should not be scored if it's in answer to a questions (e.g., What do you want to do? Let's play blocks. - is not a direction). Direction should also not be scored when one character offers a casual invitation (e.g., Let's go to the park.).

**Examples**
- Now we're going to play house.
- Give me that truck.
- We're going fishing.
- (One character quizzing another) What's this? What's this?
Differentiating Direction from Conflict: Direction should be scored when no discord or disagreement is implied by the expression.

You are not allowed in my house = Conflict
Come with me to the store = Direction

Limit Setting

Definition: A unit of expression in which one character restricts the activity of another, comments on or corrects their misbehavior, or administers verbal or physical discipline. May include adult-child interactions or child-child interactions. One character asking for permission has not been scored as limit setting.

Examples
You're in trouble.
You shouldn't have done that.
You're grounded.
You'll have to go to bed with no supper.
Clean your room before you go play.
No cookies until after dinner.
Kids, it's time to leave.

Differentiating Limit Setting from Conflict: Whether a unit is scored as Limit Setting will depend on the context of the expression. Limit setting should be scored when the expression is intended to limit behavior to social or family convention (e.g., No cookies until after dinner.) or is a consequence to perceived misbehavior.

I'm gonna tell mom = Limit Setting
You shouldn't have done that = Limit Setting

That made me mad = Conflict
That was mean = Conflict

I'm gonna take away your blocks (in response to other character destroying tower) = Limit Setting
You can't play with my blocks (not as a consequence) = Conflict

Differentiating Limit Setting from Direction: Limit Setting should be scored when the unit of expression is a consequence to a perceived misbehavior.

Now we're going to clean the house = Direction
Clean the house before you have dinner = Limit Setting
**Proximity-Seeking**

**Definition:** A unit of expression in which one character conveys a need or desire to be psychologically or physically closer to another person. Proximity-seeking is not scored when it is simply an invitation to action (e.g., Want to go on the swings.). It is scored when the emphasis in the invitation is on companionship rather than the action. (e.g., Want to go on the swings with me.)

**Examples**
- I missed you.
- I wish you knew what I meant.
- You don't understand.
- Are you still my friend?
- Well, do you want to play with me?
- I want to go to Carmen's house.
- We went over to Stacey's house to see if they wanted to play with us.
- Do you want to go to the park and play with me?
- Can you sleep over this weekend?
- Want to go to my house now?
- He was very lonely.
- Do you want to dance?
- Where could he be?
- Where's my teddy bear? (whiny, anxious voice)

**Affiliation**

**Definition:** A unit of expression in which a character indicates an association or alliance with another character(s) who may or may not be present. Expressions must be either neutral or positive affect to be considered units of Affiliation. Also, these units must convey a sense of satisfaction or fulfillment in regards to the association with the other character, and should not imply an unfulfilled desire to be with that person.

**Examples:**
- We make a good team.
- It is nice to meet you, Stacey.
- We went to the swings and went swinging together. (with positive affect)
- I really liked spending time with him.
- We were friends forever.
- We were friends again.
- Hugging, kissing, dancing, handshake.
- That was fun. (referring to joint activity)
- He was real nice.
Differentiating between **Proximity-Seeking** and **Affiliation**: Units that are scored Proximity-Seeking should express a need or desire to be close to another person, whereas Affiliation units reflect satisfaction/fulfillment that the character is close to another person. Proximity-Seeking units may indicate that the character wishes to have some need/wish met, while Affiliation units reflect that these needs/wishes to be physically or emotionally close to another person have already been met.

Differentiating between **Proximity-Seeking** and **Cooperation**: Units that are scored as Proximity-Seeking should denote a request/need of one of the characters to be emotionally close to another character. Units of Cooperation should indicate that the characters are participating in an activity together towards a common goal.

I wish you would build a house with me. - Proximity-Seeking
(Puppets actively building a house together) - Cooperation

Differentiating between **Affiliation** and **Cooperation**: Units that are scored as Affiliation should reflect one character's satisfaction in being with another person. Affiliation is often a verbal gesture made by one of the characters to the other, whereas Cooperation requires both characters to actively participate in an activity with a common goal/purpose. It is possible that both of these units will nearly overlap (e.g., if a character expresses satisfaction in working together with the other character).

I really like building stacking the blocks with you. - Affiliation
(Puppets actually stacking the blocks together.) – Cooperation

Differentiating between **Affiliation** and **Empathy/Nurturance**: Units that are scored as Affiliation should reflect one character’s satisfaction in being with another person. Units that are considered Empathy/Nurturance are indicative of one character caring for or showing empathy to another character. It is possible that a unit of expression may possess characteristics of both Affiliation and Empathy/Nurturance themes. In the event that a unit of expression reflects characteristics of both themes, context should be used to determine which theme is predominant.

Help-Seeking

**Definition**: A unit of expression in which one character states that they need or want the assistance of another person. These requests often reflect a need for assistance with daily tasks.

**Examples**:
I need help putting my shoe on
Can you hand me that blue block?
Could you change the channel for me?
Differentiating **Proximity-Seeking** from **Help-Seeking**: Units that are scored Proximity-Seeking should express a desire to be emotionally or physically close to another, whereas units that are scored as Help-Seeking simply seek the assistance of another person and do not imply a need to be emotionally closer to that person.

Will you give me a hug?  = Proximity-Seeking  
Will you help me button my shirt, please?  = Help-Seeking

**Differentiating Help-Seeking from Direction**: Units that are scored as Help-Seeking when a character requests assistance from another person. Units that are marked as Direction indicate instances when a character gives an order to another.

Will you hand me that green block?  = Help-Seeking  
Give me that green block?  = Direction

**Cooperation**

**Definition**: A verbal or nonverbal unit in which characters work together towards a common goal. The goal may be tangible (e.g., building something) or intangible (e.g., working to resolve a problem). Cooperation may be scored when the puppets are clearly working together, even though it has not been directly stated.

**Examples**

Let’s work together.  
(Puppets assisting each other to build with blocks.)  
Then they sat down and tried to figure out what to do.  
We can build a tower together.  
If we work together, we can make the world better.

**Differentiating Cooperation from Help-Seeking, Proximity-Seeking, or Sharing/Turn Taking**: (See above).

**Sharing/Turn-Taking**

**Definition**: A verbal or nonverbal expression in which characters share or take turns.

**Examples**:

I’ll share this with you.  
Let’s share.  
Do you want to play with this too?  
It’s your turn.  
Let’s take turns.
Differentiating **Sharing/Turn-Taking** from **Cooperation**: If the characters are working toward a common goal, then Cooperation should be scored. Throwing a ball back and forth may represent turn-taking, but it is not working toward a more final accomplishment like building or making something together.

**Empathy/Nurturance**

**Definition**: A verbal or nonverbal unit of expression in which one character expresses components of empathy (e.g., emotional responsiveness, reflection of feelings, taking another's perspective) or gives support to another character. Also included in this category would be compliments and praise, acknowledgement of another's distress through apologies or reflection of feelings, and asking for or reflecting another character's point of view. Questions such as "What do you want to play?" or "What do you want to do?" are not scored as Empathy.

**Examples**:
- Gift giving
- Are you ok?
- I'll help.
- You look worried.
- Don’t forget your sweater.
- (Helping.)
- How are you doing?
- Mark was a sensitive guy; he understood people.
- Thank you for helping me.
- I'm sorry that you're feeling bad.
- I'll cheer you up.
- I know how you feel.
- I knew that Mark was feeling sad.

Differentiating **Empathy/Nurturance** from **Proximity-Seeking, Help-Seeking, and Affiliation**: As a rule of thumb: Empathy/Nurturance units are scored when a character is giving support, while Proximity-Seeking and Help-Seeking represent a need for support, and Affiliation represents satisfaction with support.

**Rejection/Abandonment/Grief**

**Definition**: A verbal or nonverbal unit of expression in which one character experiences loss, rejection, or abandonment. Rejection may be experienced in relation to a request (e.g., Will you help me? No!) Or may be independent from a request (e.g., I don't want to go with you. I'd rather be with Joe.).

**Examples**:
Their parents died.
They were left all alone.
Nobody wants to play with me.
He got chosen last for the game.
They were taken away from their mom and dad.

**Needs Met**

Definition: Scored when a request is made for physical or emotional assistance, affiliation, or nurturance. Coded “yes” when the request is met to the satisfaction of the character who requested it. Coded “no” when the request is ignored, responded to with hostility, or not met to the satisfaction of the character who requested it.
Global Scores

Affect-Tone of Interpersonal Interactions

Definition: (Scored 1-5.) This score represents the affective valence associated with relationships and interpersonal interactions between characters in the play. Low scores indicate interactions that are emotionally or physically painful and interactions in which there is no response or ineffective response to characters' needs. High scores indicate interactions in which characters display love and caring and individuals' needs are met. To obtain higher scores, conflicts may be present, but they are not overwhelming and can be resolved. To assess the affect-tone, consider a child's responsiveness scores, their frequency of cooperation/sharing/empathy/affiliation, the appropriateness of limit setting, and the number and severity of conflicts, in addition to the positive and negative valence associated with character interactions overall.

1. Interactions are overwhelmingly negative. There is intentional maliciousness. Characters are unable to get their needs met, do not meet others' needs, or are uncaring.

Examples: Excessive aggression, I'm going to kill you, I'm gonna blow you up, Characters are lonely, sad, angry, characters needs are unmet. There is very little or no solace in interpersonal interactions. Violence occurs without resolution.

2. Interactions are negative, but not overwhelming. Others are uncaring.

Examples: Aggression, but not catastrophic or overwhelming. Frequent statements such as: I'm gonna beat you up. I don't like you. I'm never gonna play with you again.

3. Interactions are mildly negative to neutral.

Examples: Characters' interactions are primarily bland, with some negative valence or minor aggression. Minor conflicts are unresolved

4. Interactions are primarily neutral to mildly positive: love and care is available, but characters primarily are acting in parallel.

Examples: Characters are able to have their needs met. No aggression present, however, characters may interact in bland, neutral manner without clear display of positive relationship,

5. Interactions are positive: needs are met, conflicts can be resolved, love affection is displayed

Examples: Characters display affection, no physical aggression (or if aggression, conflict is resolved with display of empathy), Characters' needs are met, Characters work together
towards common goals, Clear display of positive affect between characters, not simply neutral "getting along"

**View of Self**

**Definition**: (Scored 1-4) This global score assesses the sense of self depicted in the play, in regards to characters' feelings of effectiveness, self-worth, and whether they are lovable. This score should be considered in regard to the characters' sense of self, not to the general outcome of events in the play (i.e., it's not the same as affect-tone).

1. **= Negative self-view**: characters are seen as unlovable, ineffective at getting needs met, unsuccessful at accomplishing goals. Nearly all negative statements in the play.

2. **= Negative - Neutral self-view**: characters are depicted mostly as unworthy, unsuccessful, unlovable, but may have some successes. More negative than positive statements in the play.

3. **= Neutral - Positive self-view**: characters are depicted with both negative and positive elements or neutral and positive elements. More positive than negative statements in the play.

4. **= Positive self-view**: characters are depicted as able to accomplish goals despite obstacles, characters are lovable and have self-worth. They are independent, capable of entertaining self when alone. Nearly all positive statements in the play.

**Examples of statements depicting negative self-view:**
- I can't do it.
- (Expressions of frustration at failures)
- I'm trying to build and it keeps falling down.
- He didn't know how.
- He wasn't any good at it.
- All he could do was cry.
- Nobody liked him.
- He was stupid.
- What's wrong with you? Even preschoolers know how to do that!

**Examples of statements depicting positive self-view:**
- I did it all by myself!
- (Happily entertaining self with toys.)
- (Overcoming obstacles to accomplish a goal)
- It fell down, but I fixed it.
- I learned how to do it.
- You got it right!
- You made a beautiful tower.
Bryant (1982)

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. It makes me sad to see a girl who can't find anyone to talk with.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>2. People who kiss and hug in public are silly.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>3. Boys who cry because they are happy are silly.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>4. I really like to watch people open presents, even when I don't get a present myself.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>5. Seeing a boy who is crying makes me feel like crying.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>6. I get upset when I see a girl being hurt.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>7. Even when I don't know why someone is laughing, I laugh too.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>8. Sometime I cry when I watch TV.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>9. Girls who cry because they are happy are silly.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>10. It's hard for me to see why someone else gets upset.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>11. I get upset when I see an animal being hurt.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>12. It makes me sad to see a boy who can't find anyone to hang out with.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>13. Some songs make me so sad I feel like crying.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>14. I get upset when I see a boy being hurt.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>15. Adults sometimes cry even when they have nothing to be sad about.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>It's silly to treat dogs and cats as though they have feelings like people.</td>
<td>Y  N</td>
</tr>
<tr>
<td>17.</td>
<td>I get mad when I see a classmate pretending to need help from the teacher all the time</td>
<td>Y  N</td>
</tr>
<tr>
<td>18.</td>
<td>Kids who have no friends probably don't want any.</td>
<td>Y  N</td>
</tr>
<tr>
<td>19.</td>
<td>Seeing a girl who is crying makes me feel like crying.</td>
<td>Y  N</td>
</tr>
<tr>
<td>20.</td>
<td>I think it is funny that some people cry during a sad movie or while reading a sad book.</td>
<td>Y  N</td>
</tr>
</tbody>
</table>
Prosocial Moral Reasoning Task

Prosocial Moral Reasoning Stories: Procedures

Nancy Eisenberg

General Procedures

1. Subjects are interviewed individually.

2. Subjects are presented with stories containing same-sex story characters (when the sex of the story character is evident).

3. Order of the stories should be randomized.

Specific Procedures

1. As an introduction, younger children are told that they are going to play a story-game in which they help make-up endings to stories. They also are told that we are interested in what children think about the situations described in the stories.

2. The stories are presented one at a time (with illustrations for the package of stories for younger children).

3. The first story is read to the subject with the first probe, which elicits the individual’s choice of behavior for the story protagonist. The individual’s reasoning is elicited at this point by asking the subject why he/she decided as he/she did.

Several caveats regarding the process of eliciting reasoning are as follows:

a) Comments like “he likes to help” or “she wants to help” are uncodible. It is not clear why the story character wants to help –
for rewards, social approval, because they like the other person, etc.? If the interviewer is familiar with the coding categories, he/she can ask him/herself if the child’s response is sufficiently vague that the child could mean several different things which could be coded in several categories. If so, the interviewer should use probes such as: “Why does he want to help?”, “What is important about that?”, “Why does she do what people ask?” (if the child says “she helped because they asked her.”). The child can use more than one type of reasoning to justify a choice.

b) Do not be deceived by the use of big words. “Guilt” may mean fear or shame; “responsibility” may not refer to internalized values. Probe further to make sure that the subject is using a socially valued term in the usual way. Often it is sufficient to ask “What do you mean by guilty?” or “How do you mean?”

4. The moral dilemmas should not be interpreted as life-or-death situations. If the subject says something like “He’d share food so they won’t die,” make it very clear that the story character would not die. Never let the subject think that helping or not helping could cost the story protagonist or the potential recipient his/her life.

5. Sometimes a subject will try to make up circumstances to alter the basic conflict. For example, for the “Party” story, a child might say “she could help and then get some cake by running fast to the party” even though, in the story, the protagonist would not get cake if he/she helped.
In brief, make the subject reason about the dilemma as presented; the subject should not alter the basic structure of the dilemma. The interviewer can redirect the subject when he/she tries to change the dilemma by saying, “That’s a good idea but” and then say that the subject’s suggested change in the circumstances of the story is not possible (for younger kids, you may need to make up a simple explanation for why their suggestion is not possible).

6. After the subject has justified his/her choice of story solution with reasoning, we always challenge the subject (in a very mild way) by saying, “So you think he/she should (fill in the choice of action) even though (fill in consequence)?” For example, in the flood story the interviewer would say, “So you think the farmers should share their food even though they’d be hungry themselves?”, or “So you think the farmers should keep the food even though the townspeople would be hungry?” This should be said in a questioning rather than attacking manner.

7. If the child changes his/her mind when challenged or at any point in the interview, get his/her reasoning for this new choice. This is important; get the child’s reasoning before pointing out the contradiction in what the child has said.

8. After obtaining the reasoning for both choices (if the child has wavered in his/her choice), point out that first the child said one thing, then another, then ask what his/her final decision will be. For example, say “First you said she should help, now you say she shouldn’t. What do you think?
What is your final decision?” Then get the child’s reasoning for his/her final decision. Finally, if the stories are being used with older children and additional probes are to be used, then use these probes.

9. Before completing a story, get the subject to retell the story to make certain he/she understands it. With younger children, if often works best if the interviewer starts to retell the story and asks the child questions regarding the critical incidents in the story. For example, the interviewer might say, “This is Mary. Where is Mary going?”, etc. If the child did not understand the story, start from the beginning with that story.

10. Sometimes young children are shy or have trouble maintaining attention. Often if a child is having trouble explaining his/her reasoning for a choice, it is worth moving on to the next story and then coming back to the one which the child did not finish. Also, sometimes it is helpful to get a shy child started by getting him/her to point to what they think the story character should do in the illustrations. For example, in the Bully story, the child can indicate by pointing if the story character should stay in his/her yard or go over to the bully.

In summary, the procedures for using the prosocial stories is as follows:

1. Randomize stories.
2. Read first story and first probe.
4. Reword reasoning.
5. If subject changes choice, get reasoning for new choice.
6. If more than one choice was made, get final decision and reasoning.

7. Use additional probes with older children.

8. Get child to retell story.

9. Do other stories in same way.

(Use female story character sets for female subjects)

**Story Set for Younger Subjects**

**THE FLOOD**

1. First read the story, then ask:

   “What do you think the farmer’s should do: should they give the food to the people of Lowlands or should they keep it for themselves?”

   (if child says they should share just a little food, make sure he/she knows they’ll still be very hungry.)

2. Why? (get a clear reason why)

3. Then if child thinks they should keep the food, say: “So you think the farmers should keep the food, even though that means the people of the flooded town won’t have any food?”

   OR: if he says he thinks the farmers should share, say: “So you think the farmers should share the food with the people, even though that means the farmers tummies will hurt?”
If there is a change of mind, get a clear reason for the new answer and then:

“Okay, first you said they should share the food, and then you decided they
should keep it. Now let’s make a final decision – should they keep it or share
it?” (child states which one) “and way was that again?”

4. THEN: Get child to retell the story, helping him/her with the picture if
necessary (prompts from you are okay).

(Use female story character sets for female subjects)

THE BULLY

1. First read the story, then ask:

“What do you think John should do, should he leave his yard and try to help,
or should he stay where he is and play?” Any response from the child
indicating he/she could somehow do both, or call a grownup or whatever, will
not work. He/she must pick one choice or the other. Not both, and not
something else.

2. Ask “Why?” (try to get the child to clearly state a reason).

3. Then if he/she says John should not help, say:

“So you think John should stay in his yard and play, even though that means
the boy will keep being pushed down by the bully?

OR: if child says John should help, say:

“So you think John should leave his yard and go to help, even though the
bully might push him too?
If there is a change of mind, get a clear reason for the new answer, get the child to make a final choice, and get reasoning for final choice.

4. THEN: Get child to retell the story to you, using the pictures.

(Use female story character sets for female subjects)

THE ACCIDENT

1. First read story, then ask:
   “What do you think Eric should do: should he run and get the boy’s parents or should he go on to the birthday party?”

   If child indicates any combination of the two (run fast and get the boy’s parents, and then go to the party) let him know that he must do one or the other, not both and not another alternative (because the party will be over by the time he would help).


3. Then, if he says that Eric should help, ask:
   “So you think Eric should run and get the boys parents, even though he’ll miss the birthday party?”

   OR: if he says Eric shouldn’t help, ask:
   “So you think Eric should go to the party, even though that means the boy will have to stay on the sidewalk with no one to help him?”

   If there is a change of mind, get a clear reason for the new answer, get the child to make a final choice, and get reasoning for final choice.

4. THEN: Get child to retell the story so you’re sure that he/she understood.
(Use female story character sets for female subjects)

THE SWIMMER

1. Read the story. Then ask:

“What do you think Bob should do, should he keep practicing (swimming) to win the contest or should he help the crippled children learn to swim?”


3. If child says Bob should keep practicing, say:

“So you think Bob should keep practicing swimming and win the money even though that means the crippled children won’t learn to swim?

OR: if the child says Bob should help the children, say:

“So you think Bob should help the crippled children learn to swim, even though that means he won’t be able to win the contest and the money?”

If there is a change of mind, get a clear reason for the new answer, get the child to make a final choice, and get reasoning for the final choice.

4. THEN: Get child to retell the story, using the pictures.
Categories for Coding Young Children’s Reasoning on Prosocial Stories
(from Eisenberg-Berg and Hand, 1979)

AUTHORITY AND PUNISHMENT REASONING: Conscience is equated with anxiety about punishment. Avoidance of punishment and unquestioning deference to power are valued in their own right. The physical consequences of an action determine its goodness regardless of human values and needs. For example, one child said that she would not leave her sandbox to help another child (in the bully story) because her mother has told her not to leave the yard.

HEDONISM: The child is motivated by considerations of selfish gain for himself or others he is identified with; for example, a child would go to a birthday party rather than help the child who is injured because of “the cake” or “he likes games” (which are at the party).

NEEDS-ORIENTED: The actor labels or orients to the physical or psychological needs of others and appears to consider these needs in his or her reasoning; for example, a child said Sue would help the crippled children in the story because “their legs hurt.”

PRAGMATIC REASONING: The child justifies a given course of action with nonmoral, practical considerations (reasons unrelated to fulfilling another’s needs). For example, a child said that story character would teach crippled children to swim because “He knows how to do it” or because “He’s a good teacher.”

STEROTYPIC REASONING: The child justifies a given course of action with stereotyped conceptions of good and bad behavior and/or persons; for example, “Cuz, that’s more nicer [to help].”

APPROVAL-ORIENTED REASONING: The child considers other’s approval and acceptance in justifying a given course of action; for example, a child said he would assist in the story about a bully because “he might make friends with the boy [being pushed].”
Behavioral Measure of Sharing  
(Stewart McBride-Chang, 2000)

When all of the other tasks are complete, tell the child:

_I have one more question for you: Do you like stickers..._

1 Not at all?  2 A little bit?  3 Very much?

Circle the correct number 1, 2, or 3 on the child’s Behavioral Measure form. Then thank the child for their help and bring out one of the colored envelopes with stickers in it. Tell the child:

_This is a gift for you to thank you for your help with our project. There are 12 stickers in this envelope. You can keep all of them, or if you would like, you can share some of them with the children in your class who didn’t get to participate in this project. If you decide to share some stickers, I’ll put them in this envelope and give them to your teacher so that she can give them to the other children later._

_Would you like to share some of your stickers?_

If the child indicates yes, offer them an empty manila envelope and say:

_Put the stickers that you want to share in here._

If the child indicates that they do not want to share, say:

_That’s fine. You decided to keep your stickers._

Discreetly record the number of stickers shared, then escort the child back to the classroom.
### Appendix B: Tables

**Table 1**

*Categories for Prosocial Moral Reasoning Task*

<table>
<thead>
<tr>
<th>Reasoning Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority and Punishment Reasoning</td>
<td>Conscience is equated with anxiety about punishment. Avoidance of punishment and unquestioning deference to power are valued in their own right. The physical consequences of an action determine its goodness regardless of human values and needs.</td>
</tr>
<tr>
<td>Hedonism</td>
<td>The child is motivated by considerations of selfish gain for himself or others he is identified with</td>
</tr>
<tr>
<td>Needs-oriented</td>
<td>The actor labels or orients to the physical or psychological needs of others and appears to consider these needs in his or her reasoning</td>
</tr>
<tr>
<td>Pragmatic Reasoning</td>
<td>The child justifies a given course of action with nonmoral, practical considerations (reasons unrelated to fulfilling another’s needs).</td>
</tr>
<tr>
<td>Stereotypic Reasoning</td>
<td>The child justifies a given course of action with stereotyped conceptions of good and bad behavior and/or persons</td>
</tr>
<tr>
<td>Approval-oriented reasoning</td>
<td>The child considers other’s approval and acceptance in justifying a given course of action</td>
</tr>
</tbody>
</table>
Table 2

_Eisenberg’s Levels of Prosocial Moral Reasoning_

<table>
<thead>
<tr>
<th>Prosocial Moral Reasoning Level</th>
<th>Approx Grade School Period of Frequent Occurrence</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonistic, pragmatic orientation</td>
<td>Preschool, early elementary school</td>
<td>Behavior satisfies own needs, gains for self.</td>
</tr>
<tr>
<td>Needs of other orientation</td>
<td>Preschool, elementary school</td>
<td>Concerns for physical, material, psychological needs of others in simple terms</td>
</tr>
<tr>
<td>Stereotyped, approval focused orientation</td>
<td>Elementary school and secondary school</td>
<td>Stereotyped images of good and bad people and concern for gaining others’ approval</td>
</tr>
<tr>
<td>Empathetic orientation</td>
<td>Late elementary school and secondary school</td>
<td>Reasoning reflects an emphasis on perspective taking and empathic feelings for others</td>
</tr>
<tr>
<td>Transition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalized values orientation</td>
<td>Minority of secondary school students and high school students and beyond; no elementary school students</td>
<td>Focus on internalized values and norms; desire to maintain contractual obligation; belief in dignity, rights, and equality</td>
</tr>
</tbody>
</table>
Table 3
Hypothesized Relationships

<table>
<thead>
<tr>
<th>ITPS</th>
<th>Would be…</th>
<th>Prosocial Moral Reasoning Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>significantly positively correlated with…</td>
<td>Needs-oriented reasoning frequency score</td>
</tr>
<tr>
<td>Prosocial Composite in play</td>
<td>significantly negatively correlated with…</td>
<td>Hedonistic reasoning frequency score</td>
</tr>
<tr>
<td>Cooperation in play</td>
<td>significantly positively correlated with…</td>
<td>Needs-Oriented reasoning frequency score</td>
</tr>
<tr>
<td>Sharing/Turn-taking in play</td>
<td>significantly negatively correlated with…</td>
<td>Hedonistic reasoning frequency score</td>
</tr>
<tr>
<td>Empathy-Nurturance in play</td>
<td>significantly positively correlated with…</td>
<td>Needs-oriented reasoning frequency score</td>
</tr>
<tr>
<td>Affect Tone in Interactions in play</td>
<td>significantly negatively correlated with…</td>
<td>Hedonistic Reasoning frequency score</td>
</tr>
</tbody>
</table>

**Prosocial Moral Reasoning**

<table>
<thead>
<tr>
<th>Needs-Oriented Reasoning frequency score</th>
<th>significantly positively correlated with…</th>
<th>Bryant Empathy Score &amp; Donation frequency score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hedonistic Reasoning frequency score</td>
<td>significantly negatively correlated with…</td>
<td>Bryant Empathy Score &amp; Donation frequency score</td>
</tr>
</tbody>
</table>
Table 4

*Means and standard deviations for the Interpersonal Themes in Play System (N = 58)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ITPS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prosocial Composite</td>
<td>4.41</td>
<td>3.48</td>
</tr>
<tr>
<td>Empathy</td>
<td>.98</td>
<td>1.33</td>
</tr>
<tr>
<td>Affiliation</td>
<td>.64</td>
<td>1.04</td>
</tr>
<tr>
<td>Sharing</td>
<td>.93</td>
<td>1.36</td>
</tr>
<tr>
<td>Cooperation</td>
<td>1.50</td>
<td>1.90</td>
</tr>
<tr>
<td>Affect-tone</td>
<td>3.90</td>
<td>1.56</td>
</tr>
</tbody>
</table>

*Note.* ITPS=Interpersonal Themes in Play; Prosocial Composite=sum of empathy, affiliation, sharing and cooperation themes; Empathy=Empathy/Nurturance; Sharing=Sharing/Turn-Taking; Affect Tone=Affect Tone in Interactions
Table 5

*Means and standard deviations for Prosocial Moral Reasoning, empathy, donation, and verbal achievement (N = 58)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prosocial Reasoning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authority/Pun</td>
<td>1.16</td>
<td>.52</td>
</tr>
<tr>
<td>Hedonism</td>
<td>1.69</td>
<td>1.05</td>
</tr>
<tr>
<td>Needs-Oriented</td>
<td>2.98</td>
<td>1.28</td>
</tr>
<tr>
<td>Pragmatic</td>
<td>1.05</td>
<td>.23</td>
</tr>
<tr>
<td>Stereotyped</td>
<td>2.02</td>
<td>1.13</td>
</tr>
<tr>
<td>Approval</td>
<td>1.10</td>
<td>.55</td>
</tr>
<tr>
<td><strong>Empathy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-report</td>
<td>13.69</td>
<td>3.21</td>
</tr>
<tr>
<td><strong>Donation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Like stickers?</td>
<td>2.83</td>
<td>.38</td>
</tr>
<tr>
<td>Donate?</td>
<td>.26</td>
<td>.44</td>
</tr>
<tr>
<td>How many?</td>
<td>1.38</td>
<td>2.55</td>
</tr>
<tr>
<td><strong>PPVT Standard Score</strong></td>
<td>100.97</td>
<td>11.97</td>
</tr>
</tbody>
</table>

*Note.* Prosocial Reasoning = Prosocial Moral Reasoning Category; Authority/Pun = Authority/Punishment; Empathy-Self-Report = Bryant Empathy Measure; Like Stickers? = did children state that they liked stickers or not; Donate? = whether or not the child chose to donate the stickers; How many? = number of stickers the child chose to donate; PPVT = Peabody Picture Vocabulary Test-III.
Table 6

*Intra-scale Correlations for the ITPS (N = 58)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ITPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Affect-tone</td>
<td>--</td>
<td>.77**</td>
<td>.53**</td>
<td>.43**</td>
<td>.63**</td>
<td>.49**</td>
</tr>
<tr>
<td>2. Prosocial Comp.</td>
<td>--</td>
<td>.66**</td>
<td>.40**</td>
<td>.68**</td>
<td>.66**</td>
<td></td>
</tr>
<tr>
<td>3. Empathy</td>
<td>--</td>
<td>.08</td>
<td>.27*</td>
<td>.34**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Affiliation</td>
<td>--</td>
<td>.08</td>
<td>.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Cooperation</td>
<td>--</td>
<td></td>
<td>.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Sharing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

* p<.05 ** p<.01

Note. Affect Tone=Affect Tone in Interactions; Prosocial Comp=Prosocial Composite; Empathy=Empathy/Nurturance; Sharing=Sharing/Turn-Taking
Table 7

*Intra-scale Correlations for the Prosocial Moral Reasoning (N = 58)*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prosocial</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Author/Pun</td>
<td></td>
<td>-.10</td>
<td>-.23*</td>
<td>.23*</td>
<td>-.12</td>
<td>-.06</td>
</tr>
<tr>
<td>2. Hedonism</td>
<td></td>
<td></td>
<td>-.39**</td>
<td>-.01</td>
<td>-.38**</td>
<td>-.13</td>
</tr>
<tr>
<td>3. Needs-Oriented</td>
<td></td>
<td></td>
<td>-.12</td>
<td>-.50**</td>
<td>-.30*</td>
<td></td>
</tr>
<tr>
<td>4. Pragmatic</td>
<td></td>
<td></td>
<td></td>
<td>-.14</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>5. Stereotyped</td>
<td></td>
<td></td>
<td></td>
<td>-.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Approval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

*Note.* Prosocial=Prosocial Moral Reasoning; Author/Pun=Authority/Punishment
Table 8

*Number of Children Using Prosocial Moral Reasoning Category by Grade (N = 58)*

<table>
<thead>
<tr>
<th>Grade</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority/Punish</td>
<td>3 (15%)</td>
<td>1 (5%)</td>
<td>2 (20%)</td>
<td>0</td>
</tr>
<tr>
<td>Hedonism</td>
<td>7 (37%)</td>
<td>6 (35%)</td>
<td>4 (40%)</td>
<td>5 (42%)</td>
</tr>
<tr>
<td>Needs-Oriented</td>
<td>17 (89%)</td>
<td>16 (94%)</td>
<td>9 (90%)</td>
<td>9 (75%)</td>
</tr>
<tr>
<td>Pragmatic</td>
<td>0</td>
<td>1 (5%)</td>
<td>1 (10%)</td>
<td>1 (8%)</td>
</tr>
<tr>
<td>Stereotyped</td>
<td>10 (53%)</td>
<td>8 (47%)</td>
<td>8 (80%)</td>
<td>7 (58%)</td>
</tr>
<tr>
<td>Approval Oriented</td>
<td>1 (5%)</td>
<td>0</td>
<td>0</td>
<td>2 (16%)</td>
</tr>
</tbody>
</table>

*Note.* Percentages in parentheses; First grade N = 19, Second Grade N = 17, Third Grade N = 10, Fourth Grade N = 12
Table 9

*Correlations between Interpersonal Themes in Play, Prosocial Moral Reasoning, and verbal achievement for entire sample (N=58)*

<table>
<thead>
<tr>
<th></th>
<th>Prosocial Moral Reasoning</th>
<th>PPVT-III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Play</td>
<td>Hedon</td>
</tr>
<tr>
<td>Prosocial Composite</td>
<td>-.18</td>
<td>.08</td>
</tr>
<tr>
<td>Empathy</td>
<td>-.17</td>
<td>.19</td>
</tr>
<tr>
<td>Affiliation</td>
<td>-.09</td>
<td>.05</td>
</tr>
<tr>
<td>Cooperation</td>
<td>.04</td>
<td>.11</td>
</tr>
<tr>
<td>Sharing</td>
<td>-.26*</td>
<td>-.07</td>
</tr>
<tr>
<td>Affect-Tone</td>
<td>-.07</td>
<td>.18</td>
</tr>
</tbody>
</table>

*p < .05 ** p < .01

*Note. Empathy=Empathy/Nurturance; Sharing=Sharing/Turn-Taking; Affect-Tone=Affect Tone In Interaction; Hedon=Hedonism; Needs=Needs-Oriented; Stereo=Stereotyped; PPVT-III=Peabody Picture Vocabulary Test*
Table 10

Prosocial moral reasoning, empathy, and donation for entire sample (N = 58)

<table>
<thead>
<tr>
<th></th>
<th>Empathy</th>
<th>Donation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosocial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hedon</td>
<td>-.02</td>
<td>.18</td>
</tr>
<tr>
<td>Needs</td>
<td>.10</td>
<td>-.15</td>
</tr>
<tr>
<td>Stereotype</td>
<td>.02</td>
<td>.00</td>
</tr>
</tbody>
</table>

* *p < .05 ** p < .01

Note. Prosocial=Prosocial Moral Reasoning Category; Hedon=Hedonism; Needs=Needs-Oriented Reasoning; Empathy-Self-Bryant Empathy; How Many=How many stickers the child donated
Table 11

*Interpersonal Themes in Play, Prosocial Moral Reasoning, empathy, and donation for grades 1-3 (N = 46)*

<table>
<thead>
<tr>
<th></th>
<th>Prosocial Moral Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ITPS</td>
</tr>
<tr>
<td>Prosocial Composite</td>
<td>-.33*</td>
</tr>
<tr>
<td>Empathy</td>
<td>-.23</td>
</tr>
<tr>
<td>Affiliation</td>
<td>-.14</td>
</tr>
<tr>
<td>Coop</td>
<td>-.22</td>
</tr>
<tr>
<td>Sharing</td>
<td>-.25*</td>
</tr>
<tr>
<td>Affect-tone</td>
<td>-.21</td>
</tr>
</tbody>
</table>

* p<.05  ** p<.01

*Note.* Empathy=Empathy/Nurturance; Coop=Cooperation; Sharing=Sharing/Turn-Taking; Affect-Tone=Affect Tone in Interactions; Hedon=Hedonism; Needs=Needs-Oriented Reasoning; Stereo=Stereotyped Reasoning
Table 12

*Interpersonal Themes in Play and Prosocial Moral Reasoning, excluding non-players*

*(N=50)*

<table>
<thead>
<tr>
<th>Prosocial Moral Reasoning</th>
<th>ITPS</th>
<th>Hedon</th>
<th>Needs</th>
<th>Stereo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prosocial Composite</td>
<td>-.25</td>
<td>.02</td>
<td>.17</td>
<td></td>
</tr>
<tr>
<td>Empathy</td>
<td>-.21</td>
<td>.17</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td>Affiliation</td>
<td>-.11</td>
<td>.01</td>
<td>-.03</td>
<td></td>
</tr>
<tr>
<td>Coop</td>
<td>.08</td>
<td>.07</td>
<td>.22</td>
<td></td>
</tr>
<tr>
<td>Sharing</td>
<td>-.34*</td>
<td>-.15</td>
<td>.41**</td>
<td></td>
</tr>
<tr>
<td>Affect-tone</td>
<td>-.10</td>
<td>.58</td>
<td>-.04</td>
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</tr>
</tbody>
</table>

*p<.05  ** p<.01

*Note.* Empathy=Nurturance; Coop=Cooperation; Sharing=Turn-Taking; Affect-Tone=Affect Tone in Interactions; Hedon=Hedonism; Needs=Needs-Oriented Reasoning; Stereo=Stereotyped Reasoning
References


