Fact or fiction? A longitudinal study of play

and the development of reflective functioning

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**Abstract**

In Fonagy and Target’s (1996, 2000) developmental model of mentalization, play is theorized as a precursor of later mentalization and reflective functioning (RF); however, the relationship between play and later mentalization and RF has yet to be empirically tested. These processes are particularly important in the context of trauma, but an empirical model of the relationships between mentalization, play and trauma is currently lacking. The aim of this longitudinal study was to examine whether children’s capacity to engage in pretend play, to symbolize, and to make play narratives was associated with later RF in those children. Thirty-nine sexually abused children and 21 nonabused children (aged 3 to 8) participated in the study. The Children’s Play Therapy Instrument was used to assess children’s free play. Three years after the play assessment, children’s RF was assessed using the Child Attachment Interview, coded with the Child and Adolescent Reflective Functioning Scale. Pretend play completion was associated with later other-understanding. Play was also found to mediate the relationship between sexual abuse and children’s later mentalization regarding others. These findings are consistent with Fonagy and Target’s emphasis on the role of pretend play in the development of a nuanced sense of the qualities of the mind and reality. In sum, the findings lend support to Fonagy and Target’s account of playing with reality and the development of mentalization suggests that it may be more than “fiction”. Furthermore, these results suggest that children’s ability to create meaningful and coherent play sequences after sexual abuse is associated with the development of a better understanding of their relationships with others. Clinical implications and future directions are discussed.

**Fact or fiction? A longitudinal study of play and the development**

**of reflective functioning**

In a series of articles on the developmental function of play, Fonagy and Target (1996, 2000) propose that play has a central role in the discovery and understanding of mental and internal reality as distinct from external reality. This differentiation lends to the eventual development of an understanding of the mind and mentalization that is integrated with a sense of reality. They propose that between the ages of 2 to 3, play becomes a realm where the child, entering a *pretend* mode, discovers the representational aspects of thoughts. Here, symbolic representation and elaboration of different pretend play contribute to the development of an internal autobiographical narrative. Mentalization capacities have been argued to be especially important in the context of trauma and have been considered to be a resilience factor (Fonagy, Steele, & Steele, 1991). Indeed, the important transformative capacities of play are central to the work of child therapists, yet little is known regarding its role in the context of trauma or as a resilience factor associated with the development of mentalization. The aim of this study was to longitudinally examine the relationship between pretend play and the development of children’s mentalization capacities.

**Mentalization and Reflective Functioning**

Mentalization refers to the uniquely human ability to interpret the meaning of others’ behaviour by considering their underlying mental states and intentions, as well as the capacity to understand the impact of one’s own affects and behaviours on others (Fonagy & Target, 1996; Target & Fonagy, 1996; Fonagy & Target, 2000). The terms mentalization and reflective function (RF) are used interchangeably, although RF was initially considered to refer to the *measurement* of mentalization as manifested within narratives regarding attachment relationships. Mentalization capacities are considered to develop in the context of primary attachment relationships, namely that between a mother and her child. Within this relationship, the mother transmits mentalization skills via her own capacity to see her child as a mental being, to think about the subjective meaning of his signals and intentionality, and to treat these messages as an intentional act of communication by her child (Fonagy, Gergely, Jurist, & Target, 2002).

From infancy onwards, children are theorised to progressively build a type of autobiographical narrative of self in relation to others that is presymbolic, procedural, and involves nonverbal memories of sensory and affective experiences (Bleiberg, 2001; Fonagy & Target, 1996). With maturation, words gradually replace purely nonverbal, sensorimotor experiences. At the same time, children begin to predict the behaviours of others, initially using what Fonagy and Target (1996) refer to as ‘a teleological mode’, defined as the use of a mechanistic model to predict the behaviours of others. In the psychic equivalence mode, children essentially project their internal reality and emotions onto external reality. Fonagy and Target (1996) theorize that between the ages of 2 to 3 years, play becomes a realm where the child, entering a pretend mode, can discover the representational aspects of thoughts through the elaboration of different fantasy play scenarios. This in turn contributes to the development of an internal autobiographical narrative (Fonagy & Target, 1996; Target & Fonagy, 1996, Fonagy & Target, 2000). These prementalization modes gradually become nuanced and integrated into more mature mentalizing modes partly through pretend play. By the age of eight, mentalization becomes more adult-like, as by this time, children have generally developed a more refined understanding of complex emotions such as pride, shame and guilt, and of the impact of emotions and intentions on thought and behavior, with language development sufficient to communicate mental states (de Rosnay, Pons, & Harris, 2008).

**Play as an early mental activity**

Play appears to be present in the development of all young mammals as it has a key role in our learning to recognize and interpret social signals and the affective states of others (Brown, 2009; Slade, 1987), regulate aggression, and respond effectively in interpersonal contexts (Potegal & Einon, 1989; Pellegrini & Smith, 2005). From a neurocognitive perspective, play contributes to the development of higher cognitive functions and of the prefrontal regions implicated in inhibition and executive control which underly creative, self-reflective and empathic capabilities (Panksepp, 2007). From a clinical perspective, children’s fantasy play is an early mental activity through which children create structure by putting their feelings and subjective experience into a coherent narrative, helping them attribute meaning to the complexity of their own and others’ mental worlds (Ensink & Mayes, 2010; McMahon, 2009; Slade, 1994). Therefore, play, as a mental activity, facilitates the integration of experience and the regulation of emotions (Alessandri, 1991; Kernberg, Chazan, & Normandin, 1998; Berk, Mann, & Hogan, 2006). Slade (1994) has argued that putting thoughts and feelings into a play sequence contributes to a sense of mastery and that through the completion of the play sequence, a psychological structure is created that may help the child cope with adversity.

It has also been suggested that play is an antecedent of socio-cognitive understanding. For example, play has been shown to predict later performance on theory of mind tasks, mental-state talk during interactions, affect regulation, empathy, social competence and affective understanding (Connolly & Doyle, 1984; Bergman & Lefcourt, 1994; Astington & Jenkins, 1995; Galyer & Evans, 2001; Hughes & Dunn, 1998; Niec & Russ, 1996; 2002; Russ, 2004; Pellegrini & Smith, 2005; Youngblade & Dunn, 1995). However, these studies generally measure the incidence of fantasy play, mental state terms in this type of play, or of explicit verbalizations of symbolic play (Astington & Jenkins, 1995; 1999; Nwokah, 2010). Because play is not necessarily verbalized and can reflect an internal or implicit narrative (Kavanaugh & Engel, 1998; Pellegrini & Smith, 2005), it is important to consider both verbal and non-verbal aspects of play. The Children’s Play Therapy Instrument (CPTI: Kernberg et al., 1998; Kernberg & Normandin, 2000) allows the assessment of both verbal and non-verbal aspects of free play narratives to investigate the link between both dimensions of play and later mentalization capacities.

**Play, Reflective Functioning and Sexual Abuse**

Mentalization is a potential resilience factor in the context of abuse (et al., 2015; Ensink, Berthelot, Bernazzani, Normandin, & Fonagy, 2014; Fonagy, Steele, Steele, Higgitt & Target, 1994); however, sexual abuse has a negative impact on mentalization and RF in children (Ensink et al,,, 2015). Play is also affected in the context of traumatic experience (Alessandri, 1991; Cunningham, Fill, & Al-Jamie, 1999; Fonagy & Target, 2000). In addition, abuse and neglect are associated with a range of socio-cognitive difficulties including deficits in theory of mind and emotional understanding (Cicchetti, Rogosch, Maughan, Toth, & Bruce, 2003; de Rosnay et al., 2008) as well as a reduced lexicon for describing internal states (Beeghly & Cicchetti, 1994). It is likely that the neurophysiological effects of trauma including hypervigilance and the activation of primitive prementalizing systems developed to detect potential threat undermine mentalization and cognitive development. Furthermore, Target and Fonagy (1996; 2000) suggest that in some cases, the inhibition or avoidance of mentalization may be partly defensive. In reaction to trauma, the child voluntarily sacrifices thinking about mental states to maintain positive representations and relationships with abusive attachment figures. Sexually abused children show deficits in mentalization regarding self and others (Ensink et al., 2014) as well as the inability to complete play narratives (Tessier, 2013), yet research on the association between play and later mentalization capacities in the context of sexual abuse is lacking.

The present study aimed 1) to test Fonagy and Target’s (1996) theory that prentend play would predict children’s later mentalization capacity and 2) to investigate whether the relationship between early child sexual abuse and children’s later mentalization capacities is mediated by play. We hypothesized that child sexual abuse would negatively impact children’s later mentalization, in part because children’s capacity to engage in fantasy play is dirsrupted by traumatic sequelae.

**Method**

**Participants**

Participants were 60 children divided in two groups. The first group consisted of 39 children (9 boys, 30 girls) with histories of sexual abuse (*M*age at Time 1 = 71.6 months, *SD* = 17.6; *M*age at Time 2 = 113.5 months, *SD* = 19.0). The comparison group consisted of 21 children (9 boys, 12 girls; *M*age at Time 1 = 67.8 months, *SD* = 17.6; *M*age at Time 2 = 108.1 months, *SD* = 14.3). The majority of the children (93%) were French Canadian.

This study was conducted at the university psychology clinic. Youth Protection Services, Community Health Services, and physicians referred sexually abused children to this clinic, as it was one of the only services specialised to provide psychological assessment and intervention at that time. Acquintances (26%), fathers (23%), grandfathers or the partners of grandmothers (13%), the mother’s partner (10%) or the child’s brother (10%) perpetrated the abuse. Regarding the type of abuse, 35 involved genital contact (90%), with eight involving penetration (23%). More than half of the mothers were divorced, separated or single (*n* = 21, 54%) and mothers had an average of 14 years of education (*SD* = 2.9). Advertisements in schools, daycare centers or Community Health Services were used to recruit the nonabused group. The majority of mothers were married or cohabitating (*n* = 19, 91%). Mothers of children in this group had an average of 17.5 years of education (*SD* = 3.3).

Sexually abused children and controls were matched on age and gender, and although there was an attempt to match groups in terms of family income and maternal education, this was unsuccessful and was thus controlled for in further analyses. Because family income and maternal education were highly associated, we used maternal education as the control variable.

**Procedure**

At the first assessment (Time 1), children participated in a 45-minute free play session in a well-equipped playroom accompanied by a graduate student in psychology with clinical experience with children and play therapy. The same procedure for presenting the toys and inviting the children to play at will was followed for all children. The assistant participated in the play only when the child requested that they join and assigned them a role. Assistants were not permitted to introduce play themes or ideas. Free play sessions were recorded with two small wall mounted rotary cameras controlled by a research assistant behind a one-way mirror. Two graduate students in psychology coded the play. Approximately three years later, four female doctoral psychology students conducted the Time 2 assessment at the university psychology clinic. Time 2 assessment consisted of the Child Attachment Interview.

**Measures**

**Children’s Play Therapy Instrument (CPTI).** The CPTI was developed by Kernberg, Chazan and Normandin in 1998to code 45-minute video recordings of free play. The child’s play is coded in three steps, the first of which involves segmentating the recordings into the following phases: 1) preparation to play, 2) play and 3) non-play. The preparation to play phase refers to the child setting the stage, identifying a theme and/or using initiatory phrases such as, “Let’s play!”. A segment is coded as ‘play’ once the child has begun to elaborate a theme by identifying actors, assigning roles and describing scenes. The play may involve negative and positive affect, and typically has a beginning, middle and an ending. Segments coded as ‘non-play’ include any activity outside of the realm of play, such as the child discussing their day at school.

The second step in coding play involves identifying the different themes and narratives elaborated by the child, keeping in mind that a single narrative may be comprised of several themes. A global perspective is required when coding themes as they may reemerge across play segments, as later on during play a child may come back to an earlier theme and complete it later. The characters, themes and play materials define and delimit a play narrative.

The third step in coding play involves determining whether play narratives are complete or incomplete. Complete narratives have a beginning, middle and an end, whilst incomplete narratives lack such coherence. In these instances, the child, for different reasons, is unable to conclude the story. The percentage of fantasy play narratives brought to conclusion is used an indicator of the capacity of the child to complete and resolve play.

The activity structuring scale of the CPTI (Kernberg et al., 1998) was shown to have good interrater reliability (κw = .69 and .72). In the present study, inter-rater reliability for 13 free play sessions was excellent (Landis & Koch, 1977), with a weighted kappa coefficient of .90 for the Play Segmentation Scale and Cohen kappa coefficients of .88 for Identification of play narratives and of .76 for Play completion.

**The Child Attachment Interview and the Child Reflective Functioning Scale**

The CAI is a 15-question semi-structured interview developed to activate the attachment system and to elicit narratives about the self and relationships with attachment figures. For the purpose of the present study, the CAI was translated into French and then back-translated to assure equivalence with the original English version. Adapted from the Adult Reflective Functioning Scale (Fonagy et al., 1998), the Child Reflective Functioning Scale (CRFS: Ensink, Target, & Oandasan, 2013) was used to rate transcripts of videotaped CAI interviews (Shmueli-Goetz, Target, Fonagy, & Datta, 2008; Target, Fonagy, Shmueli-Goetz, Datta, & Schneider, 1998). The CRFS manual enables trained raters to make an objective assessment of children’s ability to provide mentalizing accounts of themselves and their key attachment relationships in response to the CAI questions. Children’s narratives are coded on an 11-point scale (1 to 9) descriptively anchored at six points in terms of their propensity to consider interpersonal interactions and personal reactions in mental state terms. Consistent with the rating of adult RF, low risk populations are expected to have an average RF score of 5, representing a general capacity to think about the self and close relationships in mental state terms. Because of theoretical considerations and previous findings with adults indicating that self- and other understanding may have distinct implications, self and other items were treated as separate scales. The mean RF for the four items eliciting self-descriptions and the child’s reactions in response to upsetting events were used to obtain children’s RF regarding themselves (RF-S). The mean score on the nine questions pertaining to the child’s relationships with their parents and parents’ reactions when upset or when they argue were used to calculate the child’s RF regarding others (RF-O). Inter–rater reliability of the CRFS items has been reported to be good, with intraclass coefficients (ICCs) ranging from .60 to 1.00, with a median of .93 (Ensink, 2004). Temporal stability of children’s RF was shown to be high over a 3-month period and adequate over 12 months (Ensink, 2004). Coding was carried out by the first author and two doctoral students trained by the first author to 85% agreement. This level of reliability was achieved after 12 hr of training. Although few children disclosed abuse-related information, indicators of abuse were removed from the transcript so that coders were blind to the abuse status of the case.

**Statistical Analysis**

The distributions of RF scores and the proportion of pretend play completed were examined for normality (Tabachnick & Fidell, 2006). Logarithmic transformations were applied to variables with skewed distributions to allow the use of parametric tests. Bi-variate analyses (t-tests and chi-square tests) were used to compare demographic variables between groups. Pearson correlations were used to test potential confounding effects of gender and SES, with maternal education as a proxy for SES. Analyses of covariance (ANCOVA) were performed to examine differences between sexually abused and nonabused children in later RF (both RF-S and RF-O), with age at Time 2 and SES as covariates. Pearson’s correlations were also used to examine relationships between fantasy play completion and later RF (both RF-S and RF-O).

A mediation model of the indirect effect of play completion on sexual abuse and later child RF with child’s age and SES as covariates was then tested using the the nonparametric bootstrapping method (Preacher & Hayes, 2004; 2008). The nonparametric bootstrapping method was chosen over the Sobel test and Baron and Kenny’s (1986) causal steps due to the small sample size in this study. Furthermore, the nonparametric bootstrapping approach does not assume that the indirect effect is normally distributed (thus reducing the probability of type 1 error) and permits the assessment of an indirect effect after controlling for covariates (Preacher & Hayes, 2004). Point-estimates and bias-corrected 95% confidence intervals (95% CIs) were based on 5000 bootstrap resampling. 95% CIs that do not contain zero indicated a significant indirect effect. All analyses were performed in SPSS and the SPSS macro developed by Preacher and Hayes (2008) was used to test the mediation model.

**Results**

**Preliminary Analysis**

The proportion of males and females, as well as mean age at Time 1 and Time 2 did not differ between abused and non-abused groups (χ2 (2, *N* = 60) = 2.54, *ns*, *t*(58) = -.78; *ns*, and *t*(58) = -1.13; *ns*,respectively). Mothers from the CSA group had on average of three years less education than mothers from the control group, *t*(58)= 4.31; *p* < .001, η² = .23.

No significant associations between children’s fantasy play completion and child age or SES were found (*r*s ranging from .03 to .14, *ns*). Fantasy play completion did not differ significantly between genders, *t*(58) = -.26; *ns.* Children’s RF-S and RF-O also did not differ significantly between genders (*t*(58) = .08; *ns*, and *t*(58) = .11; *ns*). Significant positive correlations between age and RF-S and RF-O (*r* = .46, *p* < .001 and *r* = .39, *p* < .01, respectively), as well as between maternal education and RF-S and RF-O (*r* = .28, *p* < .05 and *r* = .28, *p* < .05) were found.

Means and standard deviations of children’s completion of play narratives, RF-S and RF-O, and maternal RF scores are presented in Table 1. Sexually abused children had a significantly more difficulties with completing fantasy play narratives compared to nonabused children, *t*(58) = 2.79, *p* < .01, η² = .12. Significant differences between sexually abused and nonabused children in RF-S and RF-O were also oberserved, *t*(58) = 2.20, *p* < .05, η² = .08, and *t*(58) = 2.63, *p* < .05, η² = .11, respectively. After controlling for age at Time 2 and SES, differences in RF-O between abused and non-abused children remained significant, *F*(3, 56)= 5.47, *MSE* = 2.10 , *p* < .05, η² = .09, and differences in RF-S became marginally significant , *F*(3, 56)= 3.65, *MSE* = 2.45, *p* = .06, η² = .06.

**Play Completion as a Mediator of Sexual Abuse and Reflective Functioning**

A significant relationship between play and RF-O was found (*r* = .29, *p* < .05), yet the association between play and RF-S was non-significant (*r* = .15, *ns*). Therefore, we only examined the mediating effect of play on RF regarding others.

Figure 1 presents the bootstrapped results of the direct effects. The total effect of sexual abuse on children’s later RF-O (path c) was reduced to a non-significant level (path c) after introducing fantasy play completion as a mediator. Fantasy play completion was found to significantly mediate the association between child sexual abuse and later RF-O with a point estimate of -.3404 (95% CI = -.8950, -.0780) and this effect was maintained even after controlling for age at the time of CAI and maternal education. Moreover, the partial effect of maternal education was not significant, *B* = .11*, SE B* = .06, *β* = .22, *p* = .08; thus, SES was not significantly associated with children’s RF-O after fantasy play completion was included as a mediator in the model.

**Discussion**

The first objective of this longitudinal study was to examine whether it was possible to obtain empirical evidence consistent with Fonagy and Target’s (1996) theory that play is a developmental precursor of children’s later mentalization, measured as RF. The second aim was to examine whether there was evidence that play mediated the relationship between child sexual abuse and later mentalization difficulties.

The current study found that childrens’ capacity to elaborate and conclude their play narratives predicted later mentalizing abilities, providing empirical support for Fonagy and Target’s theory on the function of pretend play for learning about mental reality and for the development of mentalization. As expected, children who experienced sexual abuse manifested significantly more difficulties in developing and concluding play narratives and showed significantly lower RF three years later. Experiential avoidance linked to disoragnized attachment has been shown to inhibit the development of theory of mind in adolescents (Vanwoerden, Kalpakci, & Sharp, 2015). Similarly, the inhibition of play of sexually abused children observed in the present study may have resulted from post-traumatic anxiety and the subsequent inhibition of the exploration of the thoughts and feelings of others (Fish-Murray, Koby, & Van der Kolk, 1987). The inhibition of play could also be related to disorganized attachment activated in the context of trauma (Cassidy& Mohr, 2001). In the case of traumatised children exposed to the thoughts and feelings of adults with a frank wish to harm them, being able to move from the domain of observable behaviour to the level of representation in play has self-evident value in terms of meaningfully reengaging with the adult social world.

Play was found to predict later mentalization regarding others, but not mentalization regarding self and supports previous results from Seja and Russ (1999), who did not find an association between play and comprehension of affective states of the self. Taken together, these findings suggest that play may uniquely contribute to the development of mentalization about others, whereas alternate processes may be more important in the development of autobiographical mechanisms. Specifically, distinct processes and neurobiological systems are involved in the development of self- and other-understanding (Conway, Pothos, & Turk, 2015; Denny, Kober, Wager, & Ochsner, 2012 ; Lieberman, 2010; Lieberman & Van Horn, 2008; Seja & Russ, 1999; Van Overwalle, 2009). From a theoretical perspective, certain types of play facilitating the imagination of the roles and perspective of others may be more likely to facilitate the development of mentalization. At the same time, mentalization regarding self can be expected to be more closely related to the mother’s (or primary caregiver’s) interest in the subjectivity of the child, as reflected in previous findings that maternal RF predicts child RF regarding themselves (Ensink et al., 2014).

Play is considered a vital resource for children due to its role in facilitating the representation and integration of thoughts and feelings about others and in restoring psychological adaptation. Unfortunately, it is precisely these functions that appear to be inhibited by trauma (Fonagy & Target, 2000). Not only did the present find that abused children struggle to represent experiences in fantasy play narratives, but that play completion mediates the relationship between sexual abuse and later mentalization. These findings suggest that sexual abuse has a detrimental effect on mentalization through its impact on children’s capacity to use play to learn about minds and mental reality, represent experience, and discover their ability to influence their mental representation of experience. Given that the capacity to represent experience and create narratives in play may be important in the resilience processes, play and the capacity to play are important psychological tools that need to be restored after trauma. Therefore, the current findings underscore the importance of play therapy and more specifically, of the restoration of the capacity to play in the context of child sexual abuse, as a therapeutic priority. Play therapy where the child has the opportunity to represent their experience and elaborate their subjective preoccupations in the presence of the therapist who has a benign interest in their internal world may restore access to this important inner resource (Kelly & Odenwalt, 2006; McMahon, 2009; Slade, 1994; Terr, 1990). An integreation of play and mentalization-based perspectives may be beneficial in the treatment of children who have experienced trauma (Benham & Slotnick, 2006; Ensink & Normandin, 2011). In essence, the opportunity to play with ideas may serve as part of an ‘exposure process’ whereby the experience of modifying the nature of reality as represented in the child’s mind without serious consequence generates increased opportunities for exposure to multiple perspectives and reduces the need for experiential avoidance in relation to the thoughts and feelings of others.

While the strengths of the study include its longitudinal design, inclusion of a trauma sample, and use of observational and interview measures of play and RF, the study remains exploratory and some limitations must be considered when interpreting the results. The study’s small sample size reduced statistical power to detect significant findings, which may also explain the lack of significance for self-understanding. Considering the relative novelty of the play instrument and of the child RF scale, further replication of studies using these measures is needed, in addition to studies involving other measures of the same constructs. The predictive model tested accounted for 35% of the variance in RF regarding others, suggesting that further research is needed to examine the contribution of other factors to the development of mentalization regarding others, such as parent-child talk about mental states and emotions, attachment, and parental psychopathology.

**Conclusion**

This longitudinal study found that play predicted later mentalization capacities about others, providing empirical support for Fonagy and Target’s developmental model where play is an important precursor of later mentalization. These findings suggest that Fonagy and Target’s audacious theory of the importance of discovering that mental reality can be played with and changed by thinking about it differently, is more than in inspiring fiction. Playing with reality and finding ways to represent experience and discovering the capacity to change the mental representation of experience may be especially important for development of mentalizing ability in the aftermath of trauma. When trauma undermines the capacity to play, restoring children’s access to this important inner resource through play therapy may be crucial to limit the long-term negative impact of trauma.**References**

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Table 1.

*Means and Standard Deviations of Children’s Scores at Fantasy Play Completion, Self- and Other-RF by Group (N = 60).*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Sexually abused | Nonabused | *t*(58) | η2 |
| CPTI |  |  |  |  |
| Fantasy play completion*a* | .53 (.81) | 1.16 (.86) | 2.79\*\* | .12 |
| CAI |  |  |  |  |
| Self-RF | 2.55 (1.95) | 3.68 (1.76) | 2.20\* | .08 |
| Other-RF | 2.37 (1.75) | 3.54 (1.42) | 2.63\* | .11 |

\*p < .05; \*\* p < .01

*a* Logarythmic transformed means.

**-1.0594\***

(-.30\*)

c

Other-Understanding

Sexual abuse

Fantasy Play Completion

b

**.5322\***

(.27\*)

a

**-.6668\***

(-.37\*)

c’

Other-Understanding

Sexual abuse

**-.7045**

(-.20)

*Figure 1.*Illustration of direct effects of the bootstrap mediating model predicting other-understanding (*N* = 60). Path values represent both unstandardized regression coefficients (bold) and standardized regression coefficients (in brakets). 5000 bootstrap samples. Controlling for SES and child’s age. Adjusted *R*2 for the mediating model = .35, *F* (4, 55) = 8.89, *p* < .001.

\* *p* < .05.