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Chapter 4: Moral Judgment, Cognitive Distortions and Implicit Theories in Young Sex Offenders⁵

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Abstract

This study focused on moral judgment, cognitive distortions and implicit theories in 77 young sex offenders of whom 56 were child abusers and 21 were peer abusers. The Sociomoral Reflection Measure – Short Form (SRM-SF) was used to assess moral judgment, and was extended with questions about sexual situations and the offenders' abuse victim(s). Lower stage moral judgment was only found in peer abusers responding to own victim situations. The sex with children is justifiable scale (SWCH) was used to measure implicit theories, which are beliefs justifying sex with children. No significant differences were found between the child and peer abuser group. Neither significant relations were found between the implicit theories and the level of moral judgment. In addition, all SRM-SF responses were coded according to Barriga and Gibbs' (1996) four-category typology of self-serving cognitive distortions. Cognitive distortions concerning the abuse victim were associated with lower stage moral judgment, but only in the peer abuser group.

Moral Judgment, Cognitive Distortions and Implicit Theories in Young Sex Offenders

Extensive research has been conducted on the relation between moral development and moral behavior. Kohlberg (1984), following the work of Jean Piaget (1932), focused on moral judgment, which can be defined as reasons or justifications for decisions that pertain to just or benevolent social action (see Gibbs, 2010). Kohlberg's developmental stage model of moral judgment consists of six hierarchically ordered stages that consecutively provide more universally acceptable solutions to moral issues. At stage 1 (obedience and punishment orientation), the evaluation about what is right and wrong is based on the occurrence of negative consequences for oneself (e.g. punishment) or on rules of authority figures. At stage 2 (instrumental and exchange orientation), the distinction between right and wrong depends on personal benefits that can be achieved or on exchange of favors. Conformity to social expectations and positive intentions of behavior are important at stage 3 (interpersonal relationships orientation), whereas maintenance of social order in society is important at stage 4 (member-of-society orientation). At stage 5, right is defined by the degree to which rules meet the needs of most people (social contract orientation). Finally, at stage 6 (universal principles orientation), right is grounded in principles of justice securing that moral decisions are based on equality and full respect for each individual (Kohlberg, 1984). Individuals are assumed to reach higher stages of moral judgment when they cognitively mature and thus moral judgment is not only related to age, but also to educational level and intelligence (Langdon, Clare, & Murphy, 2010; Langdon, Murphy, Clare, & Palmer, 2010).

Kohlberg (1984) believed that once an individual reaches a certain stage of moral judgment, he or she cannot fall back on previous stages of moral judgment. Also, Kohlberg's (1984) model implied consistency of moral judgment across various contexts (and domains). Krebs and Denton (2005), however, reviewed the empirical literature on context- and domain-specific moral judgment, and concluded that moral judgment is better understood from a dimensional perspective, meaning that individuals have access to a range of moral judgment structures (flexibility of stage use), and that the actual level of moral judgment depends on the situation a person is in.

Kohlberg's (1984) moral judgment model was also criticized for the non-universality of the highest stages (stage 5 and 6). None of the participants in Kohlberg's (1984) longitudinal study reached stage 6, and only a small percentage of the participants, who all received a form of graduate education, reached stage 5. Consequently, Gibbs, Basinger and Fuller (1992) revised Kohlberg's (1984) theory and developed a new model consisting of four stages in which stage 3 and 4 are believed

to represent the second order thoughts that occur in more mature moral judgment. Moreover, this new model is believed to specifically measure moral judgment competence instead of verbal competence in the higher stages (Gibbs, 2010).

Research has repeatedly shown that delinquents display lower levels of moral judgment (primarily stage 1 and 2) than non-delinquents (Gibbs, Basinger, Grime, & Snary, 2007; Palmer, 2003; Stams et al., 2006). For example, a meta-analysis by Stams et al. (2006) showed that juvenile delinquents display lower stage moral judgment, even after controlling for intelligence, age, gender and socioeconomic status. In addition, Van Vugt et al. (2011) found lower levels of moral judgment to also predict criminal offense recidivism. However, an important limitation of both meta-analyses is that a broad variety of offender types were included, varying from first offenders and shoplifters to more severe offender types, including violent offenders, which hamper the ability to gain insight in moral development of specific offender groups, such as sex offenders.

The need to study more homogeneous offender groups is best illustrated in a study by Valliant, Pottier, Gauthier, and Kosmyna (2000), who found general and incest offenders to display less mature levels of moral judgment than child molesters and rapists, who did not show lower levels of moral judgment. According to Van Vugt et al. (2008), this unexpected finding in the child molester and the rapist group can best be explained by the fact that general, instead of domain-specific moral judgment, was examined. In addition, Van Vugt et al. (2008) found juvenile sex offenders not to be deficient in general moral judgment, but to show domain specific moral judgment delays. Lower stage moral judgment was only found in solo juvenile sex offenders when questions focused on the offender's abuse victim. Moreover, it was found that these moral judgment deficits were related to cognitive distortions (Barriga, Landau, Stinson, Liau, & Gibbs, 2001; Lardén, Melin, Holst, & Långström, 2006; Van der Velden, Brugman, Boom, & Koops, 2010; Van Vugt et al., 2008).

Although several definitions of cognitive distortions exist, the general notion is that cognitive distortions are statements that justify (e.g. by denial of one's own contribution to the situation or minimization of the consequences) a criminal act (Abel, Becker, & Cunningham-Rathner, 1989; Maruna & Mann, 2006). Moreover, these statements are believed to be self-serving in a sense that they help to protect the self from blame or a negative self-concept facilitating aggressive, antisocial or delinquent behavior (Barriga & Gibbs, 1996; Barriga, Landau, Stinson, Liau, & Gibbs, 2000; Ward, Hudson & Marshall, 1995). It is the offender's statements (cognitive distortions) that help to reduce the cognitive dissonance that arises when negative or criminal behavior is conflicting with an individual's moral standards.

Cognitive distortions have been acknowledged to play an important role in sex offending. However, there is still discussion whether cognitive distortions arise after

perpetration of the sexual abuse act, to maintain one's self image (Barriga, Sullivan-Cosetti, & Gibbs, 2009; Burn & Brown, 2006) or already exist before the initiation of the abuse and subsequently contribute to sexual offending (implicit theories), as proposed in adult sex offender research. Ward (2000) states that sex offenders' information processing of social (sexual) situations is in line with their distorted beliefs, also referred to as implicit theories. Implicit theories "enable individuals to explain and understand aspects of their social environment, and, therefore, to make predictions about future events" (p. 495). For example, child molesters' implicit theories comprise statements in which the child is seen as an instigator of sexual contact with the offender, or in which sexual contact between the offender and the child is considered harmless (Mann, Webster, Wakeling, & Marshall, 2007; Ward, 2000). Rapist's implicit theories, on the contrary, include statements that reflect hostility and violence towards women: for example, the idea that women provoke sexual contact (Ward, 2000). Five implicit theories have been identified by Ward and Keenan (1999), namely: children as sexual objects, entitlement, dangerous world, uncontrollability, and nature of harm. Much sex offender research has focused on implicit theories of child molesters. However, whereas some research reported child molesters to show more distorted beliefs regarding child sexual contact in comparison with rapists and controls (Mann et al., 2007), other research found opposite results, which was suggested to be caused by socially desirable answering by the child molester group (Gannon & Polaschek, 2005).

Summarizing, both cognitive distortions and beliefs supporting sexual abuse (implicit theories) affect the way social information is processed and they permit delinquents to offend while maintaining a positive self-image. It has been proposed that moral judgment delay alone does not automatically result in antisocial or delinquent behavior (Gibbs, 1991; 2010), unless cognitive distortions or beliefs supporting sexual abuse are present. Cognitive distortions or beliefs supporting sexual abuse may reduce the cognitive dissonance that arises when the offender's moral beliefs (e.g that it is important not to violate other's values) and behavioral acts (e.g forcing someone to have sex) conflict, and are thought to obstruct higher levels of moral judgment in offenders (Gibbs, Potter, Barriga, & Liau, 1996; Ward, Gannon & Keown, 2006).

Although much attention has been paid to cognitive distortions and implicit theories in adult sex offenders, in particular with respect to differences between child molesters and rapists, to our knowledge, differences in cognitive distortions and implicit theories between empirically established typologies of young sex offenders have not been studied yet. Such examination seems important, because many juvenile sex offender treatment programs are modeled after adult sex offender treatment programs, and also based on outcomes of adult sex offender research (Letourneau & Miner, 2005).

Given the relevance of this topic for treatment programming of sex offenders, it is important to establish whether young sex offenders show specific deficits in moral development, whether they show cognitive distortions or beliefs that justify child sexual abuse, and whether these potential deficits are situation-specific or not. Moreover it is important whether results are different for two subgroups of juvenile sex offenders, namely child abusers and peer abusers (Hendriks & Bijleveld, 2004).

A juvenile sex offender is considered a child abuser when the victim is at least 5 years younger and or prepubertal. A juvenile sex offender is classified a peer abuser when the age of the offender and the victim differs less than 5 years or when the victim is older than the offender. Peer abusers mostly commit a variety of offenses (Hendriks & Bijleveld, 2004), whereas child abusers more often tend to specialize in sex offenses (Hissel, Bijleveld, Hendriks, Jansen, & Collot-d'Escury-Koenigs, 2006). It is important to study both child and peer abusers, as the etiology of delinquency is different in these groups. For instance, the criminal careers of peer abusers are more affected by their antisocial attitudes, whereas the criminal careers of child abusers rather need to be understood from social-emotional problems, such as a negative self-image and difficulties to connect with peers, resulting in social isolation (Hendriks & Bijleveld, 2008).

The present study can be seen as an extension of the study by Van Vugt et al. (2008), who examined moral judgment stage in general life-, sexual-, and own abuse victim situations in a group of juvenile sex offenders. The aim of the current study is to distinguish between two identified subgroups of juvenile sex offenders, namely child- and peer abusers, and to examine differences between child and peer abusers' level of moral judgment, the existence of distorted beliefs supporting child sexual abuse and the degree of cognitive distortions displayed in sexual and own abuse victim situations. Furthermore, we examine the relation between cognitive distortions, coded according to the four-category typology of Barriga and Gibbs (1996), implicit theories, and the level of moral judgment of child and peer abusers in sexual and own abuse victim situations.

As there is empirical evidence showing that antisocial attitudes seem to be more a characteristic of peer abusers than of child abusers, we expect peer abusers to show lower levels of moral judgment than child abusers. Furthermore, we expect to find lower levels of moral judgment when the offender focuses on his own abuse victim. As child abusers are more often specialist offenders, who are specialized in one particular offense, we hypothesize this group to show more distorted beliefs, that is, implicit theories facilitating child sexual abuse. Furthermore, we expect young sex offenders with cognitive distortions to display lower levels of moral judgment than those who do not show cognitive distortions.

Method

Sample

A total of 77 Dutch male sex offenders from three juvenile correctional facilities (Den HeyAcker, Harreveld, Rentray) and six offices of a forensic outpatient treatment center, De Waag, participated in this study. The sex offender group was classified according to typologies that are used in clinical practice and scientific research.

The majority of the sample ($n = 56$) was identified as child abusers, with a mean age of $M = 17.23$ ($SD = 2.20$), ranging from 13 to 22 years of age. Most child abusers attended a form of (lower) vocational education (71.40%), which prepares students for careers in (non-academic) manual labor jobs or practical jobs. A small percentage (12.90%) of the child abusers attended special education. Most participants (75%) were Caucasian and almost all offenders perpetrated sexual abuse alone (96.40%). The child abuser group was acquainted to their victim – meaning the victim was a family member, neighbor or classmate – in 91.10% of the cases. Most victims were females (53.60%), 21.40% were males, and 25% of the offenders had both female and male victims.

A total of $n = 21$ male offenders were classified as peer abusers with a mean age of $M = 18.29$ ($SD = 2.24$), ranging from 15 to 23 years of age. Approximately 42.90% of the peer abusers attended a form of special education and 33.30% attended vocational education. Again, most peer abusers were Caucasian (85.70%) and a large group was classified as solo sex offenders (95.20%) as they committed the sexual offense alone. In 66.70% of the cases, the victim was familiar with the offender, meaning victim and the offender knew each other from before the abuse took place. Most victims were females (52.40%), 19.00% were males, and 28.6% of the offenders had both female and male victims.

As offender characteristics and risk factors of the child and peer abuser group may account for possible differences in moral judgment, cognitive distortions and implicit theories, we examined a variety of offender characteristics and static and dynamic risk factors by studying the offender's case files. No significant differences were found between the child and peer abuser group in ethnicity, intellectual disability, psychopathology, criminal history, history of sexual abuse, victimization of bullying behavior, and type of treatment. The child and peer abuser group, however, significantly differed in familiarity with their victims, as the peer abuser group abused more unknown victims than did the child abuser group (for an overview, see Table 1a). We also examined differences between peer and child abusers in age, treatment duration, psychopathic traits, psychosocial problems, empathy, and socially desirable answering. Peer abusers were significantly longer in treatment at the moment the research took place (for an overview, see Table 1b).

Table 1a: Differences between child and peer abusers in offender characteristics and static and dynamic risk factors (categorical variables)

Categorical variables	Categories	Child abuser	Peer abuser	χ^2
Ethnicity	Native Dutch	75.00%	85.70%	1.02
	Other ethnical background	25.00%	14.30%	
Intelligence	IQ < 80	32.70%	45.00%	.96
	IQ > 80	67.30%	55.00%	
Psychopathology	Present	28.6 %	14.30%	1.68
	Absent	71.40%	85.70%	
Criminal history	Yes	37.50%	33.30%	.12
	No	62.50%	66.70%	
History of sexual abuse	Yes	62.50%	71.40%	.54
	No	37.50%	28.60%	
Victim of bullying	Yes	33.30%	23.80%	.65
	No	66.70%	76.20%	
Victim known to offender	Yes	94.40%	77.80%	4.27*
	No	5.60%	22.20%	
Treatment	Residential	48.20%	66.70%	2.09
	Ambulatory	51.80%	33.30%	

Note. * $p < .05$.

Table 1b: Offender characteristics and static and dynamic risk factors (continuous variables)

Continuous variables	Child abuser	Peer abuser	t
Age	17.23	18.20	-1.86
Educational level	4.67	4.24	1.20
Psychosocial problems (SDQ ¹)	1.51	1.62	-1.67
Psychopathic Traits (ICU ²)	1.75	1.66	.86
Psychopathic Traits (APSD ³)	2.03	1.89	1.46
Cognitive empathy (general)	3.88	3.99	-.75
Affective Empathy (general)	3.15	3.37	-1.51
Cognitive empathy (sexual)	4.78	4.86	-.72
Affective empathy (sexual)	4.63	4.80	-1.49
Cognitive empathy (victim empathy)	4.25	4.23	.11
Affective empathy (victim empathy)	4.34	4.20	.70
Social Desirability	1.40	1.44	-.69
Treatment Duration	3.95	5.16	-2.32*

Note. * $p < .05$.

- 1 Strength and Difficulty Questionnaire
- 2 Inventory Callous Unemotional
- 3 Antisocial Process Screening Device

Procedure

All respondents signed a consent form to declare that they voluntarily participated in this research and gave the researchers permission to analyze their psychological and criminal records. In case the participant had not yet reached the age of 16 years, a parent or a caregiver had to co-sign the consent. We explained to the respondents that withdrawal from the research did not have any consequences, neither on treatment (evaluation) nor for their actual or future detention situation. All SRM-SF interviews were recorded on audiotape and later transcribed and scored by the first and third author of this article. Each respondent received a unique code to guarantee their anonymity, and received a reward of 5 Euro's for their cooperation.

Instruments

Moral judgment was measured with the *Sociomoral Reflection Measure– Short Form (SRM-SF)*, a structured interview that contains eleven items on which the respondent has to evaluate issues that comprise the core universal value domains of morality, that is, life, affiliation, law, legal justice, contract, and truth (Gibbs et al., 1992, 2007). "How important is it for judges to send people who break the law to jail?" is an example of one of the eleven original (general life situation) questions of the SRM-SF.

As previous research conducted on adult sex offenders showed this group of offenders not to be deficient in empathic responding toward all people or in all situations, but to specifically lack empathy in sexual and own abuse victim situations (Fernandez & Marshall, 2003; Fernandez, Marshall, Lightbody, & O'Sullivan, 1999), we developed two additional scales for the SRM-SF, including four questions about moral values in the domain of sexuality, and another four questions to measure the juvenile offenders' evaluations about moral situations that concern their own abuse victim(s). An example of an item with sexual content is: "Imagine two people kissing. How important is it that someone stops kissing if the other person says no? Could you explain why?" An example of an own abuse victim question is: "How important is it that your own abuse victim receives help?" (Van Vugt et al., 2008) (see Appendix 1).

The SRM-SF interviews were transcribed and the answers containing justifications indicative of stage 1-4 of Gibbs' model of moral judgment development were summed and divided by the number of scorable answers (Gibbs et al., 1992). By multiplying the final scores by 100, the mean scores can be compared with the global moral stage index of Gibbs et al (1992). See Appendix 2 for an overview of the global stages.

All SRM-SF interviews were scored reliably by the first and third author of this paper, with inter-rater agreement above $\kappa = .90$ (Landis & Koch, 1977). If the coders disagreed, classification was established in consensus agreement after discussion.

Four moral interviews were not included in the analysis, since they had more than five unscorable answers. Internal consistency reliability analyses were performed for the three situations, yielding $\alpha = .67$ for the original general life situation questions, $\alpha = .59$ for the questions concerning sexuality in general, and $\alpha = .63$ for questions pertaining to the offenders' abuse victim(s).

All SRM-SF questions were coded according to the *four-category typology of cognitive distortions* of Barriga and Gibbs (1996), which is a categorization of rationalizations that 'neutralize' feelings of guilt or rationalizations that reduce stress resulting from the perceived harm done to the other. The first category, "self-centered cognitive distortions", constitutes the primary cognitive distortions, meaning the offender interprets the situation according to his own views or needs. In this case the perspective of the other person is hardly considered or paid attention to. The other three categories, "blaming others", "minimizing/mislabeling" and "assuming the worst", constitute secondary cognitive distortions, which serve to support the primary distortions. When an offender is "blaming others" (second category), he/she is misattributing blame to an external source, such as another person, group, or a temporary state he/she was in (e.g. intoxication); or he/she is misattributing blame for one's own victimization or unfortunates in life. In the third category "minimizing/mislabeling", the offender refers to antisocial behavior as causing no real harm, considers antisocial behavior as acceptable or admirable; or refers to a person in a belittling or in a dehumanizing manner. In the last category, "assuming the worst", the offender shows a hostile attribution style; or continuously expects social events to have a negative outcome (worst case scenario); or believes one's own behavior or that of others is incorrigible. The transcripts were scored for cognitive distortions by the first and fourth author independently, with a concordance of Cohen's Kappa above .80 after training.

Implicit theories were measured with the *Sex With Children (SWCH) scale*, an instrument that is used in both prison and community settings in the United Kingdom. Mann et al. (2007) acknowledge that offenders who identify themselves with the beliefs that are measured with the SWCH are more likely to generate distorted statements about their own abuse victim(s). The SWCH was translated into Dutch and adapted for the use among young sex offenders by simply removing the word adult(s). The SWCH consists of 18 items, which are responded to on a five-point Likert type scale ranging from 1= strongly disagree to 5 = strongly agree. Higher scores on the SWCH indicate stronger beliefs that justify sexual contact with children. The SWCH consist of two factors with the first factor (F1) reflecting beliefs that sexual abuse of children is harmless and the second factor (F2) reflecting beliefs that children are sexual beings who provoke sexual activities. An example of an F1 question is: "Having sex with a child is not really all that bad because it doesn't really harm the child". An example of an F2

question is: "Children who do not wear underwear and who sit in a way that is revealing are suggesting sex". Both factors match with two of Ward and Keenan's (1999) implicit theories, subsequently: "nature of harm" (F1) and "children as sexual objects" (F2). Both factors F1 and F2 proved to be reliable ($\alpha = .86$ and $\alpha = .87$).

Results

The results section contains four subsections. In the first section (preliminary analyses), we examine whether risk factors on which child and peer abusers significantly differed were significantly associated with moral judgment, cognitive distortions and implicit theories in order to test whether these risk factors may operate as possible confounders. In the second section, we examine differences between child and peer abusers in cognitive distortions and implicit theories. In the third section, differences in moral judgment in general life situations, sexual situations and own victim situations are examined within both the child and peer abuser group. In the fourth section, we examine the associations between cognitive distortions, implicit theories and moral judgment.

Preliminary analyses

We conducted a *t*-test and correlational analyses to examine whether risk factors on which the child and peer abusers significantly differed (familiarity with the victim and treatment duration) were associated with moral judgment, cognitive distortions and implicit theories, but no significant associations were found.

Differences in implicit theories and cognitive distortions between child and peer abusers

Independent *t*-tests did not reveal significant differences between child and peer abusers in implicit theories (see Table 2). A Fisher exact test was performed to examine whether the distribution of cognitive distortions differed significantly between the child and peer abuser group in both sexual and own victim situations. The test did not produce any significant results, which indicated that both groups did not differ in the degree to which they showed cognitive distortions in sexual and own abuse victim situations. A total of 17.19% of the child abusers, and 23.80% of the peer abusers showed cognitive distortions when questioned about sexual situations, whereas 30.40% of the child abusers and 28.60% of the peer abusers showed cognitive distortions when questioned about their own abuse victim(s).

Table 2: Group differences between child and peer abusers' level of offense supportive beliefs

	Child Abuser Group			Peer Abuser Group			t
	n	M	SD	n	M	SD	
Harmless sex with children	56	1.38	.56	21	1.65	.88	-1.32
Provocative sexual children	56	1.60	.73	21	1.77	.96	-.84

Differences in moral judgment in general life, sexual and own victim situations

No significant differences were found between child and peer abusers in moral judgment regarding the three situations. However, a series of paired *t*-tests showed the peer abusers' level of moral judgment in the own victim situation to be significantly lower than their level of moral judgment in general life situations, $t(19) = 2.30$, $p = .02$, $d = 1.06$ (one-tailed) (see Table 3).

Table 3: Means scores of moral judgment stage in general life, sexual and own abuse victim situations, of child and peer abusers

	General Life Situations (original items)			Sexual Situations			Own Victim Situations		
	n	M	SD	n	M	SD	n	M	SD
Child abuser group	53	2.29	.38	55	2.26	.44	55	2.25	.37
Peer abuser group	20	2.36	.37	21	2.29	.51	21	2.22	.35

Relations between implicit theories, cognitive distortions and moral judgment

Correlational analyses were conducted in order to examine whether implicit theories were inversely related to moral judgment in general life, sexual and own abuse victim situations, but no significant associations were found. A series of *t*-tests were performed to examine differences in moral judgment stage between child and peer abusers with and without cognitive distortions in both sexual and own abuse victim situations. A significant relation was found in the peer abuser group between cognitive distortions toward the offenders' abuse victim and moral judgment, indicating that peer abusers with cognitive distortions showed lower levels of moral judgment: $t(17.79) = -2.36$, $p = .02$, $d = -.91$, one-tailed (see Table 4).

Table 4: Differences in the level of moral judgment between child and peer abusers who do show and do not show cognitive distortions

	Cognitive distortions						
	Yes			No			<i>t</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	
Moral judgment regarding own victim (child abusers)	17	2.19	.49	38	2.29	.31	-.71
Moral judgment regarding own victim (peer abusers)	6	2.04	.10	15	2.30	.39	-2.36*

Note. * $p < .05$.

Discussion

This study focused on moral judgment, implicit theories and cognitive distortions in a sample of 77 young sex offenders of whom 56 were identified as child abusers and 21 as peer abusers. Significant differences between child and peer abusers were found neither in beliefs supporting child sexual abuse (implicit theories) nor in percentages of cognitive distortions displayed in either the sexual abuse or own abuse victim situations. Additionally, no significant differences in moral judgment were found between child and peer abusers regarding the three situations. However, we did detect significant lower stage moral judgment for the own abuse victim situation compared to the general life situation, but only in the peer abuser group. Peer abusers who displayed cognitive distortions when questioned about their own abuse victim showed lower stage moral judgment. No significant relations were found between the implicit theories and moral judgment.

Although literature shows peer abusers to generally have more antisocial attitudes, which is assumed to affect their level of moral judgment (Hendriks & Bijleveld, 2004), we did not find any differences in moral judgment between child and peer abusers in the three situations. The juvenile sex offenders in our sample generally used transition stage 2-3 moral judgment, meaning that the importance of interpersonal relationships were considered in their justifications.

The present study showed moral judgment not to be consistent in all situations and under all circumstances, since the peer abusers' level of moral judgment in general life situations proved to be different from the level of moral judgment in own abuse victim situations. This result is in line with assumptions about the flexibility of stage use made by Krebs and Denton (2005). Moreover, the results of this study are in line with the study by Van Vugt et al. (2008), which showed cognitive distortions to obstruct higher levels of moral judgment. Interestingly, we did not find a relation between cognitive distortions and moral judgment in the child abuser group. As

differences between the child and peer abuser group were independent of age, intelligence and education type, a possible explanation for this result is to be found in the more specialized treatment the child abusers receive compared to the peer abusers (Hendriks & Bijleveld, 2004; Hendriks, Bullens & Van Outsem, 2002). Positive treatment effects in child abusers may, therefore, specifically appear in outcomes that are closely connected with the sexual offense they committed, such as victim related cognitive distortions or domain-specific moral judgment.

Implicit theories have so far only been examined in adult sex offenders. This study included juvenile sex offenders and showed no significant differences between child and peer abusers regarding beliefs justifying sexual contact with children. Inspection of the means of the two SWCH factors indicated that juvenile sex offenders may not have distorted beliefs regarding their own victim (Mann et al., 2007). Since research on adult child molesters suggested that these offenders may tend to “fake good” on questionnaires measuring offense supportive beliefs, and that this might be found in faster item response time (Gannon & Polaschek, 2005), we (post hoc) examined the response times of the child and peer abusers on the SWCH. No significant differences, however, were found, which rules out this alternative explanation. Although this study only examined two of five implicit theories identified in adult sex offenders, it was the first to examine these two implicit theories in juvenile sex offenders, indicating that juvenile sex offenders might be different from adult sex offenders regarding these types of beliefs and may not have these underlying distorted schema's that exist prior to the offense. As these results were based on small samples, the results of this study should be carefully considered and need to be replicated.

Some limitations of this study should be mentioned. First, this study is based on a small sample, which limits the possibility of generalizing our results. However, small sample sizes are common in sex offender research due to low base rates (McCann & Lussier, 2008). Second, the small sample size did not allow a formal test of interactions by means of a factorial ANOVA design (Landsheer, Van den Wittenboer, & Maassen, 2006). Differences in moral judgment between child and peer abusers in general, sexual, and own abuse victim situations could not be tested appropriately in this study, and should therefore be interpreted with great care. Furthermore, we lacked a comparison group of adult sex offenders in order to be able to directly compare the results of our juvenile sample with an adult sample. Third, the cognitive distortions were identified by coding the SRM-SF interviews. Although satisfactory intercoder reliability was established, this does not guaranty validity of the coding system. Future research should therefore demonstrate the validity of the cognitive distortions coding system that we devised. Fourth, the additional SRM-SF scales to assess moral judgment in sexual and own abuse victim situations have not yet been tested against the original SRM-SF items. Last, the SWCH examines only two of five implicit theories

found among sex offenders. Furthermore the SWCH, like other instruments assessing implicit theories, has been developed and validated on adult sex offenders instead of juvenile offenders. Its validity for use in adolescent samples has to be demonstrated in future research.

Given the often devastating impact of sexual abuse on victims in the first place, but also on society as a whole, and the debate about the effectiveness of treatment of sex offenders, it is essential that research focuses on identifying the factors that are associated with maintenance of sexual misconduct among young sex offenders (Tierney & McCabe, 2002). Although moral judgment, cognitive distortions have been shown to be important in the continuation of (sex) offending, they constitute only one of many explanations.

This study was a first attempt to explore differences in moral development, implicit theories and cognitive distorted thinking in two specific subgroups of juvenile sex offenders, showing some differences between child and peers abusers' level of moral development when displaying cognitive distortions towards their abuse victim. Peer abusers are more often generalists than specialists, meaning that they also commit other types of offenses. In many cases they are, therefore, treated like generalists. Targeting their general distorted beliefs, however, may be less effective for the breakdown of thinking errors in sexual abuse situations and towards their abuse victim. An alternative explanation for domain specific moral deficits that were found in the peer abuser group can be found in what Ward et al. (1997) call the process of cognitive deconstruction. Cognitive deconstruction is considered a self serving state characterized by short term, egocentric and superficial thinking, resulting in impulsive behavior. The target of treatment, should, in this case, then focus on the offenders' affect regulation and attentional bias instead of on cognitive distortions, as these are only a result of the cognitively deconstructed state.

Appendix 1: Additional SRM-SF items regarding sexual situations and own abuse victim situations.

Sexual items	Own abuse victim items
1. How important is it that victims of sexual abuse receive help?	1. How important is it to tell the truth about the sex offense you committed?
2. How important is it that rapists are being punished?	2. How important is it that your victim(s) receive help?
3. Imagine two people kissing. How important is it that someone stops kissing if the other person says no?	3. How important is it that you receive (involuntary) treatment or imprisonment for the sexual abuse act you committed?
4. How important is it that parents talk with their children about sex?	4. How important is it that your victim(s) receive(s) support from their family and friends?
5. How important is it that people don't cheat (sexually)?	

Appendix 2: The total scores of the sociomoral reasoning measure related to their moral stages

Total scores	Moral stage
100 - 125	Stage 1
126 - 174	Transition stage 1/2
175 - 225	Stage 2
226 - 274	Transition stage 2/3
275 - 325	Stage 3
326 - 374	Transition stage 3/4
375 - 400	Stage 4