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Chapter 3: Moral Development of Solo Juvenile Sex Offenders⁴

⁴ Van Vugt, E.S., Stams, G.J.J.M., Dekovic, M., Brugman, D., Rutten, E.A., & Hendriks, J. (2008). Moral development of solo juvenile sex offenders. *Journal of Sexual Aggression, 14*, 99-109.

Abstract

This study compared the moral development of solo juvenile male sex offenders ($n = 20$) and juvenile male non-offenders ($n = 76$), aged 13 to 19 years, from lower socioeconomic and educational backgrounds. The Moral Orientation Measure (MOM) was used to assess punishment- and victim-based moral orientation in sexual and non-sexual situations. Moral judgment was assessed with the Sociomoral Reflection Measure – Short Form (SRM-SF), with questions added on sexual offending and the offender's own victim(s). Offenders did not differ from non-offenders in victim-based orientation, but they showed weaker punishment-based orientation in sexual and non-sexual situations. No differences in moral judgment were found. However, lower stages of moral judgment were observed when the offenders' own victim was involved, confirming specific moral deficits in solo juvenile sex offenders. Delay in moral judgment proved to be associated with cognitive distortions. It was concluded that treatment of solo juvenile sex offenders should challenge own victim-related cognitive distortions.

Moral Development of Solo Juvenile Sex Offenders

Pedophilia and incest incite tremendous indignation and anger among members of our society. Notably, sex offenders, and child molesters in particular, have been labeled by the public as a group with a poorly developed moral conscience (Peterson, 2001). However, do sex offenders actually show deficiencies in moral judgment or lack of moral internalization, which may be evidenced by a relatively strong punishment-based orientation, and lack of victim-based, empathy-related responding (Hofmann, 2000)?

Moral judgment can be defined as 'the capacity to make judgments which are moral – i.e. based on internal principles – and to act in accordance with such judgments' (Kohlberg, 1964, p.425). Kohlberg (1984) posited an invariant sequence of six hierarchically ordered stages of moral judgment in which each stage is considered to be more adequate than the preceding stage in providing more universally acceptable solutions to moral issues.

At stage 1 (obedience and punishment orientation), individuals obey rules in order to avoid punishment (i.e. an action is perceived as morally wrong if the person who commits it is punished). At stage 2 (instrumental orientation), right behavior is defined by what is in one's own best interest (i.e. an action is morally justified if personal gains outweigh the costs). These first two stages are common in school-aged children. Stage 3 (interpersonal orientation) becomes the modal moral judgment stage in adolescence (Gibbs, Basinger, Grime, & Snarey, 2007). At this stage individuals behave morally in order to gain approval from other people, while the morality of an action is judged by evaluating its consequences for interpersonal relationships. Stage 4 (social system orientation) extends the stage 3 interpersonal orientation to complex social interactions within social institutions. It is important to obey authorities (laws, dictums and social conventions) because of their importance of maintaining society. Finally, the two highest stages, stages 5 (social contract) and 6 (universal ethical principles), constitute forms of meta-ethical judgment. Gibbs (1979) argued, however, that these two stages should be omitted from Kohlberg's model, as they are not reached spontaneously, but by means of formal education at the university level.

In Kohlberg's view, delinquency would seem to be morally acceptable at the lower, self-centred stages, whereas the higher stages (stages 3-6) may function as a buffer against delinquent behavior, as it is imperative that the well-being of others be taken into account. There is indeed abundant empirical evidence showing that offenders reason at lower stages of moral judgment than do non-offenders (Gibbs et al., 2007; Palmer, 2003). A recent meta-analysis showed that the relation between lower-stage moral judgment and juvenile delinquency holds even after controlling for socioeconomic status, cultural background, age, intelligence and gender (Stams et al., 2006). Most studies of moral judgment have focused upon the delinquent group in its

entirety. Offender populations, however, are extremely heterogeneous. For instance, Valliant, Pottier, Gauthier, and Kosmyna (2000) found significant group differences between general offenders, child molesters, incest offenders and rapists, with incest and general offenders displaying less mature levels of moral judgment than rapists and child molesters. Unexpectedly, both the rapists and child molesters did not show a delay in moral judgment.

Most research on empathy has been conducted with adult samples. A meta-analysis by Jolliffe and Farrington (2004) showed empathy to be related to offending, with larger effect sizes for adolescent than for adult offenders, and smaller effect sizes for sex offenders. It has been proposed, however, that sexual offending is associated with specific rather than general empathy deficits (see Marshall, Hudson, Jones, & Fernandez, 1995), which might explain why Jolliffe and Farrington only found a weak association between empathy and sexual offending, as their meta-analysis focused on general empathy deficits.

Fernandez, Marshall, Lightbody, and O'Sullivan (1999) found adult sex offenders not to be deficient in empathy toward all people. The authors examined empathy in child molesters, rapists, non-sex offenders, and a comparison group of non-offenders in three different conditions by questioning offenders about their feelings towards a victim of a car accident, a general abuse victim and the offender's own abuse victim. No differences in empathy toward a victim of a car accident were observed between child molesters and non-offenders. However, child molesters rated lower in empathy toward a general abuse victim, with the least empathy exhibited toward their own abuse victim. Comparing the rapist group with a group of non-sex offenders, the rapist group demonstrated higher empathy for the victim who had been in a car accident than did the non-sex offender group. No differences in empathy toward a general abuse victim were found. Similar to child molesters, rapists demonstrated least empathy toward their own abuse victim. Findings from the study by Fernandez et al. indicate that sexual offending may not be explained by a general lack of empathy. In contrast, lack of empathy rather seems to be specific, appearing only when sexuality is involved and strongest when the offender considers his own abuse victim (see Fernandez & Marshall, 2003).

Similar to the set-up of their previous studies, Marshall, Hamilton, and Fernandez (2001) examined differences between child molesters, non-sex offenders and community offenders in cognitive empathy (recognition of harm) and affective empathy (the offender's feeling of concern and compassion) for either the victim of a car accident, a general abuse victim or the offender's own abuse victim. No group differences were found in affective empathy. Also, no differences in cognitive empathy were found towards the victim of a car accident, but Marshall et al. did find differences in the case of a general abuse victim, with child molesters showing most deficits.

Greatest cognitive empathy deficits, however, were found when child molesters were asked to answer questions about their own abuse victim(s). Thus, cognitive empathy may be related more strongly to sexual offending than affective empathy, which is in line with meta-analytical findings by Jolliffe and Farrington (2004), especially when questions concern the offender's own victim(s).

Additional analyses indicated that only in child molesters, lower empathy scores correlated positively with greater cognitive distortions. Marshall et al. (2001; p. 124) therefore claim the apparent empathy deficit to be "another species of distorted processes sex offenders engage in". Cognitive distortions protect the self from blame, negative self-concept and confrontations with negative judgments of others, which allow offenders to justify their previous (or future) offending acts. These cognitive distortions hamper the suppression of antisocial behavior and obstruct the positive impact of mature moral judgment and empathy (Barriga, Landau, Stinson, Liao, & Gibbs, 2000; Lardén, Melin, Holst, & Långström, 2006; Marshall et al., 2001; McCrady et al., 2008).

However, the question remains as to whether these findings about cognitive distortions, moral judgment and empathy of adult sex offenders can be generalized to youngsters who are involved in sexually abusive behaviors. First of all, Lakey (1992) identified cognitive distortions in juvenile male sex offenders, such as blaming others ("females dress to invite rape"), which play a role in avoiding responsibility for sexual offending. Ashkar and Kenny (2007) examined moral judgment in adolescent male sex and non-sex offenders, using sexual and non-sexual offending contexts. Although no overall differences in moral judgment competence were found, offenders did show offense-specific moral judgment deficits. Lindsey, Carlozzi and Eells (2001) examined differences in the dispositional empathy of juvenile sex offenders, juvenile non-sex offenders, and non-offending youth. No differences in empathic concern and perspective taking were found between offending and non-offending youth. However, juvenile non-sex offenders scored higher than juvenile sex offenders on empathic concern.

Our literature review shows that sex offenders display deficits in moral judgment and empathy. Although the relation between moral judgment and empathy may be complex, it is evident that egocentrism is a feature of both lower-stage moral judgment and lack of empathy. Pizarro (2000) argues that the capacity to experience empathy (moral emotion) and the ability to regulate empathy efficiently (moral cognition or moral judgment) are necessary for moral action. A person who is incapable of experiencing moral emotions may reason adequately about moral issues, but might not be able to respond adequately in a real life situation, since he or she is not signaled by others' distress. There is indeed empirical evidence showing that

moral behavior depends on both affective (empathy) and cognitive (moral judgment) aspects that function together (Greene & Haidt, 2002; Wagar & Thagard, 2004).

The Moral Orientation Measure (MOM) is probably the first instrument assessing both moral emotion (empathy) and moral cognition (moral judgment) in an integrated manner, as it invokes emotion-laden judgment of moral transgressions (Brugman, Rutten, Stams, Hendriks, & Tavecchio, 2008). The MOM assesses punishment- and victim-based moral orientation, presenting respondents with a number of morally relevant situations, each including a perpetrator and a victim. The respondent is asked to evaluate how serious the consequences are for each person involved. Punishment-based orientation reflects the degree to which someone identifies with the perpetrator's interest to avoid punishment, and victim-based orientation reflects the degree to which someone is concerned with, can identify with, and understands the victim's situation, feelings and perspective. Stams et al. (2008) showed the MOM to have construct validity and to predict morally relevant behavior in delinquent and non-delinquent youth.

The present study compares moral development (moral judgment as well as punishment- and victim-based moral orientation) of juvenile male sex offenders and juvenile male non-offenders from lower socioeconomic and educational backgrounds. It should be noted that adolescents who commit sexual offenses constitute a heterogeneous population that can be categorized into several subtypes (Andrade, Vincent, & Saleh, 2006; Hendriks, 2006; Van Wijk et al., 2006). The focus of this study is on solo juvenile sex offenders. In comparison with juvenile group sex offenders, solo juvenile sex offenders have experienced more sexual abuse victimization; they have been shown to have more psychological problems, to be more neurotic and impulsive, to display poorer social skills, and to have a greater need for arousal (Bijleveld & Hendriks, 2003).

We hypothesize that solo juvenile sex offenders will be more punishment-oriented, will show less victim-based empathy-related responding and will display lower-stage moral judgment than juvenile non-offenders. We expect differences between juvenile sex offenders and non-offending juveniles to be larger when items have a sexual content, and largest when juvenile sex offenders consider their own abuse victim, as cognitive distortions could interfere with moral judgments.

Method

Participants

In total, 96 juvenile males participated in this study. The non-offending sample consisted of 76 subjects, aged 13-19 years ($M = 15.09$; $SD = 1.40$). The offending sample consisted of 20 offenders, aged 13-19 years ($M = 16.00$; $SD = 1.72$), who were sampled

from a forensic outpatient treatment facility. Although juvenile sex offenders were slightly older, both groups could be classified as adolescents: $t(94) = -2.46, p < .05$. All juvenile offenders were convicted solo sex offenders.

The ethnic background of the adolescents was defined by the criteria of the International Statistical Institute (ISI). An adolescent was considered to belong to an ethnic minority group if at least one of his parents was a native from a country that is or has been part of the Dutch policy on minorities or integration. The non-offending (32% non-natives) and offending (10% non-natives) samples differed significantly with respect to cultural background.

The juvenile non-offenders' and offenders' level of formal education was predominantly low to middle, with percentages of 80% and 87%, respectively. Socioeconomic status (SES) was a combination of the educational and occupational background of both parents (Van Westerlaak, Kropman, & Collaris, 1990) and was computed on the basis of sample-specific factor loadings and standard deviations. Mean scores corresponded to socioeconomic strata in the following way: up to 9 = lower socioeconomic background; 9 to 12 = middle socioeconomic background; 12 or higher socioeconomic background (Bernstein & Brandis, 1970). The mean score for the non-offending participants was $M = 8.72 (SD = 2.40)$, which indicated that the sample had a lower socioeconomic background. The mean score for the juvenile sex offenders was significantly lower – $M = 7.27 (SD = 2.84): t(94) = .231, p < .05$ – but the sample was also categorized as having a lower socioeconomic background.

Measures

The *Moral Orientation Measure (MOM)* has been developed as an easy-to-administer instrument for forensic diagnostics that integrates the cognitive (moral judgment) and affective (empathy) component of morality. The MOM contains ten vignettes describing morally relevant situations with hypothetical outcomes reflecting punishment- and victim-based moral orientations (Stams et al., 2008). The instrument has been adapted for the purpose of the present study, adding items that involve a situation of sexual misconduct. The respondent evaluates the outcome of the situations, each including one or more victims and at least one perpetrator, by choosing response options ranging from (1) not serious to (4) very serious. For example, at school Eric hands out nude photos of Karin: (a) Karin doesn't dare to come to school anymore (victim-based); (b) Eric is suspended for handing out the nude photos (punishment-based).

Stams et al. (2008) examined the reliability and validity of the MOM, which was administered to 75 juvenile delinquents and 579 nondelinquent adolescents from lower socioeconomic and educational backgrounds. Confirmatory factor analysis of a two-factor model, with punishment- and victim-based moral orientation as factors,

showed an adequate fit to the data, indicating construct validity of the MOM. The scales for punishment- and victim-based orientation showed satisfactory internal consistency reliabilities of $\alpha = .81$ and $\alpha = .82$, respectively. Moderate associations between punishment- and victim-based moral orientation and sociomoral reasoning, as well as empathy, were also considered indicative of construct validity. Additional evidence for construct validity was found in only small associations between punishment- and victim-based orientation and social desirability and verbal intelligence.

In the current study, a confirmatory factor analysis was conducted in order to test a four-factor model after extending the MOM with items containing a situation of sexual misconduct. Since the items of the MOM were not distributed normally, a solid estimator was used for infringement of normality. Pairs of items were allowed to correlate within similar situations. The adapted version of the MOM showed with RMSEA = .04, CFI/TLI = .97, $\chi^2(150) = 175.31$, $p = .08$ a good fit to the data (Hu & Bentler, 1999). All factor loadings were significant. Reliabilities for punishment- and victim-based orientation in a general situation were $\alpha = .62$ and $.70$, respectively, whereas reliabilities for punishment- and victim-based orientation in a sexual situation were somewhat higher, that is, $\alpha = .77$ and $.79$, respectively.

The *Sociomoral Reflection Measure-Short Form (SRM-SF)* was used to assess moral judgment (Gibbs, Basinger, & Fuller, 1992). The SRM-SF contains 11 questions addressing sociomoral values. The areas of moral value, which are distinguished, are contract and truth, affiliation, property and law, life, and legal justice. For the purpose of the present study, five questions about sexual situations in the value domains of life and legal justice were added and used in the interviews with the juvenile sex offender group. The first three questions consider juvenile sex offenders' moral judgment focusing upon situations that involve sexuality in general. The last two questions were added particularly to measure juvenile offenders' responses when asked to keep in mind their own abuse victim(s). One of the questions dealt with the importance of the therapy for the offender. The other question was concerned with the victim's well-being and health (Fernandez et al., 1999; Fernandez & Marshall, 2003; Marshall et al., 2001).

All 16 questions were ascribed to one of the four stages of morality by a blind scoring procedure. The first and second stage constitute the immature and pre-conventional level, in which judgments are successively unilateral-physicalistic (i.e. one-sided and reflecting the tendency to focus on perceptually impressive and concrete features of a situation: "a child who accidentally breaks 15 cups is naughtier than a child who breaks one cup while stealing a candy bar") and instrumental. The third and fourth stages comprise a more mature and conventional level of morality. These stages emphasize the reciprocal-prosocial as well systemic-standard aspect of moral judgments (Gibbs et al., 1992). The responses of the participants were recorded

on audiotape. The interviews were transcribed and scored according to the response options given by Gibbs et al. (1992) (see also Zwart-Woudstra, Meijer, Fintelman, & Van IJzendoorn, 1993).

The reliability of the SRM-SF was satisfactory ($\alpha = .81$). The inter-rater agreement between the second author of this article and a well-trained research assistant was established by using ten moral interviews. The correlation was $r = .99$ (norm $r = .80, p < .001$) and the mean sociomoral reflection maturity score discrepancy was only 0.03 (norm = .20). The global stage agreement within one interval was 100% and the exact global stage consensus was 94%. Inter-rater agreement proved to be reliable according to the criteria as formulated in the manual (Gibbs et al., 1992, p.57).

All responses to the SRM-SF were coded according to the four-category typology of self-serving cognitive distortions developed by Gibbs and Potter (1992): "self-centered" (according status to one's own views, expectations, needs, rights, and immediate feelings to such an extent that the legitimate views of others are scarcely considered or disregarded altogether), "minimizing/mislabeling" (depicting antisocial behavior as causing no real harm or as being acceptable or even admirable, or referring to others with belittling or dehumanizing labels), "assuming the worst" (gratuitously attributing hostile intentions to others, considering a worst-case scenario for a social situation, as if it were inevitable, or assuming that improvement is impossible in one's own or other's behavior) and "blaming others" (misattributing blame for one's harmful actions (or victimization) to outside sources or momentary aberration, such as being drunk) (see Barriga et al., 2000; Gibbs, 2003). All SRM-SF interviews were reliably scored by the first and second author of this article, with a 90% agreement. If the coders disagreed, classification was established in consensus agreement after discussion.

Results

We expected juvenile sex offenders to score higher on punishment-based orientation and lower on victim-based empathy than their non-offending age mates. In addition, we expected juvenile sex offenders to show lower levels of moral judgment. These differences were expected to be larger in sexual situations and largest when SRM-SF questions concern the offender's own victim, as cognitive distortions could interfere with moral judgments.

A series of *t*-tests were conducted in order to inspect differences in moral orientation and moral judgment between juvenile sex offenders and juvenile non-offenders. Significant results were controlled for socioeconomic status and age. In order to preserve statistical power, both variables were included in analysis of covariance (ANCOVAs) only when related significantly to either moral orientation or moral judgment.

The mean moral orientation and moral judgment scores of the juvenile non-offenders and sex offenders are presented in Table 1. Unexpectedly, juvenile non-offenders showed stronger punishment-based orientation in both sexual and non-sexual situations than juvenile sex offenders. Consistent with the main hypothesis, a significant effect was found on moral judgment when the juvenile sex offenders' own victim was involved, $t(94) = 2.17, p < 0.05$.

Socioeconomic background was not associated significantly with moral orientation and moral judgment. As only age correlated with moral judgment ($r = .25, p < .05$), an ANCOVA was conducted for moral judgment, entering age as a covariate. Results, however, remained significant: $F(1, 93) = 7.16, p < .01$. A paired t -test confirmed the finding that juvenile sex offenders showed lower scores on moral judgment in situations concerning their own victim than in general sexual situations, $t(19) = 2.42, p < .05$.

Cognitive distortions, found in the SRM-SF transcripts of six of the 20 juvenile sex offenders, were classified as "minimizing/mislabeling" and "blaming the victim". For example: "My victim was very young, I do not think he/she will have any thoughts about what happened. I am sure he/she will not suffer from the abuse" (minimizing), "She might have been twelve years of age but the girl, together with some of her girl friends, was manipulating me to have sex with her" (blaming the victim).

Table 1: Differences in Punishment-Based Orientation, Victim-based Orientation and Moral Judgment between Juvenile Non-Offenders and Juvenile Sex Offenders.

	Juvenile Non-Offenders ($n = 76$)		Juvenile Sex Offenders ($n = 20$)		t	d
	M	SD	M	SD		
Punishment-based orientation						
General Situation	1.35	0.42	1.15	0.18	3.15**	.52
Sexual situation	1.30	0.46	1.10	0.19	3.00**	.48
Victim-based orientation						
General situation	3.14	0.59	3.36	0.49	-1.52	.39
Sexual situation	3.12	0.66	3.29	0.59	-1.07	.26
Moral Judgment						
General versus general	2.57	0.41	2.62	0.41	-0.50	.12
General versus sexual ¹	-	-	2.64	0.46	-0.69	.17
General versus own victim ¹	-	-	2.33	0.59	2.17*	.53

Note. ¹ not applicable for non-offenders.

* $p < .05$. ** $p < .01$ (one-tailed significance).

Further analyses showed a significant relation between cognitive distortions and moral judgment. Juvenile sex offenders who displayed cognitive distortions had significantly ($t(18) = -2.53, p < .05$) lower scores on moral judgment, $M = 1.88$ ($SD = .63$), than juvenile sex offenders not showing cognitive distortions, $M = 2.52$ ($SD = .47$).

Discussion

This study focused upon moral development of solo juvenile sex offenders in a Dutch sample of 96 male adolescents, between 13 and 19 years of age, from lower socioeconomic and educational backgrounds. In comparison with juvenile non-offenders, solo juvenile sex offenders were expected to show lower stage moral judgment, stronger punishment-based orientation and less victim-based, empathy-related responding. We expected differences to be larger in sexual than in non-sexual situations, and largest in case juvenile sex offenders were asked to consider their own abuse victim, as cognitive distortions could interfere with moral judgment. Lower-stage moral judgment was found only in situations where the focus was shifted from a general sexual situation to the offender's own victim. The offenders who displayed cognitive distortions in answering questions about their victim rated lower in moral judgment than the offenders not displaying cognitive distortions. Contrary to our expectation, juvenile sex offenders did not differ from juvenile non-offenders in victim-based orientation, showing even weaker punishment-based orientation.

Our results suggest that solo juvenile sex offenders do not show lack of moral internalization in terms of punishment- and victim-based moral orientation, which requires an explanation. First, having a strong punishment-based orientation may not be characteristic of juvenile offenders. For instance, Gibbs et al. (2007) conducted a comprehensive review of studies using the SRM-SF, showing predominance of stage 2 pragmatic-instrumental judgments among juvenile offenders instead of stage 1 punishment- and obedience-based judgments and stage 3 empathic judgments. Secondly, the empathy measure used in the present study (victim-based orientation) is more an affective than a cognitive construct. Cognitive empathy, however, has been shown to be more strongly associated with (sexual) offending than affective empathy (see Jolliffe & Farrington, 2004). Although the MOM distinguishes between sexual and non-sexual situations, the instrument cannot be used to test differences in punishment- and victim-based moral orientation in situations involving the offender's own victim. Notably, Marshall et al. (2001) found cognitive empathy deficits to be largest when child molesters were asked to consider their own abuse victim(s). In the present study, lower-stage moral judgment was observed in juvenile sex offenders, but only when questions concerned their own victim. Thus, findings from several studies point to the existence of a specific delay in moral functioning in solo juvenile sex offenders.

The juvenile sex offenders in our study showed cognitive distortions that were related to moral judgment about their own sexual abuse victim, but we should bear in mind that solo juvenile sex offenders might also display cognitive distortions when questions concern a victim of a non-sexual offense. Notably, there is empirical evidence to suggest that (juvenile) sex offenders' cognitive distortions may not be restricted to sexual areas (Burn & Brown, 2006). Moreover, most sexual delinquents, including solo and group offenders, have been shown to commit both sexual and non-sexual offenses (Fortune & Lambie, 2006).

The results of the present study may be considered inconsistent with Kohlberg's theory of moral judgment, as he assumed moral judgment to be content-independent. Kohlberg argued that all individuals process moral information through "structures of a whole", a developmental stage like process in which older structures become transformed and replaced by new structures; but why, then, did juvenile sex offenders display immature levels of moral judgment only when considering their own victim? In contrast to displacement of previous moral judgment structures, our findings suggest flexibility of stage use. Krebs and Denton (2005) found evidence for flexible stage use in several studies, which led them to conclude that moral development should be defined more by an expansion in the range of structures of moral judgment available to people, than by the final structure they acquire. However, they did acknowledge that people prefer not to fall back on lower stages of moral judgment.

Some limitations of the current study should be mentioned. First, the limited number of 20 solo juvenile sex offenders results in low statistical power. It should be noted, however, that solo juvenile sex offenders constitute a very small group in forensic clinical practice. In that perspective, the number of 20 solo offenders may be considered substantial. Second, social desirability may have influenced responses given by the juvenile sex offender group. However, both moral judgment and moral orientation have been shown previously to be affected only marginally by social desirability (Stams et al., 2006). Third, all juvenile sex offenders were sampled from a forensic outpatient treatment center. Although treatment did not focus explicitly on moral development, moral judgment as well as punishment- and victim-based moral orientation may have been affected positively by therapy (Fanniff & Becker, 2006) or by role taking opportunities provided in therapy settings (Gibbs, 2003; Stams et al., 2006). Finally, adequate matching for age, socioeconomic status, and educational level may increase the risk of selecting juveniles in the comparison group who already have a criminal record, or who committed a criminal offense, but have not yet been caught (Stams et al., 2006). Therefore, the relatively favorable scores on moral orientation of the sex offender group might be explained by the at-risk status of the non-offending comparison group.

The present study is unique to the extent that specific delays in moral development of juvenile sex offenders have not been studied so far. We replicated results from a study examining victim-specific deficits in both cognitive and affective empathy of adult sex offenders (Fernandez et al., 1999; Fernandez & Marshall, 2003; Marshall et al., 2001). Moreover, our findings may be considered in line with results from studies conducted by Brugman and Aleva (2004) and Gregg, Gibbs and Basinger (1994), who found greater delay in juvenile non-sex offenders' level of moral judgment in the value area of 'property and law' than in other value areas, such as 'affiliation' and 'life'.

The findings of the present study may have several implications for clinical diagnosis and intervention programs targeting juvenile sex offenders. Most standardized instruments used in clinical practice measure either moral judgment or empathy, assuming consistency across contexts and content-independency. When assessing juvenile sex offender's moral cognition, however, it seems more appropriate to assess moral judgment by using instruments that focus upon the type of offense and the victim(s) involved, taking into account the mediating (Barriga, Morrison, Liao, & Gibbs, 2001) and moderating (Lardén et al., 2006; this study) effects of cognitive distortions on the relationship between moral judgment and sexual delinquency.

As our results suggest, specific delays in moral judgment appear to be connected with cognitive distortions. Therefore, if treatment of solo juvenile sex offenders is directed at moral functioning, it should particularly challenge own victim-related cognitive distortions (Calley, 2007). This can be achieved through cognitive behavioral treatment (Fanniff & Becker, 2006; Walker, McGovern, Poey, & Otis, 2004) or victim offender mediation, but only if it is adapted to fit the needs of the abuse victim, the needs of the community, and the abilities of the juvenile sex offender (Bradshaw, Roseborough, & Umbreit, 2006).

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