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Linköping University Post Print

N.B.: When citing this work, cite the original article.

Original Publication:

Clara Möller, Fredrik Falkenström, Mattias Holmqvist Larsson and Rolf Holmqvist, MENTALIZING IN YOUNG OFFENDERS, 2014, Psychoanalytic psychology, (31), 1, 84-99.

<http://dx.doi.org/10.1037/a0035555>

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Postprint available at: Linköping University Electronic Press

<http://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-105591>

Mentalizing in Young Offenders

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Abstract

In order to prevent relapse into criminality, it is important to understand what precedes criminal behavior. Two earlier studies have found deficits in mentalizing ability to be related to violent and criminal actions. Mentalizing refers to the ability to make human behavior predictable and meaningful by inferring mental states (thoughts, feelings, etc.) as explaining behavior. In this study, mentalizing ability was assessed by rating 42 Adult Attachment Interviews with young male offenders with the Reflective Functioning Scale. In addition, specific mentalizing ability about their crimes was assessed as well as psychopathy traits (PCL-SV) and alexithymia (TAS). Results suggest impaired mentalizing in criminal offenders. Examples of anti- and prementalizing reasoning about crimes are presented. RF scores were not correlated with PCL or TAS.

Keywords: mentalizing, reflective functioning, adult attachment interview, criminal behavior, psychopathy, alexithymia

Mentalizing in Young Offenders

Why people commit crimes and how to prevent relapse into criminal behavior are questions that have led to the creation of a wide range of theories and numerous studies. Knowledge of risk factors is mostly useful when they have been found to be causally related to unwanted behavior and useful for amending it (Levinson & Fonagy, 2004). Certain types of parental behavior (such as neglectful monitoring, or inconsistent power-assertive behavior) have been associated with antisocial behavior in children (Fonagy et al., 1997). Childhood experiences of abuse have also been shown to be a risk factor for abusing one's own children (Moffitt & Caspi, 2003). Still, how the abusive behavior is transmitted from one generation to the next remains unclear, and the transmission is thus difficult to prevent.

It is important to differentiate between a propensity for criminal behavior and actual performance. Fonagy (2004) argues that while factors associated with antisocial behavior “paint a picture of the individual most likely to be at risk, they do not capture the essential nature of the problem. Many individuals with these characteristics do not commit violent crime, and many violent criminals do not fit the descriptions provided particularly well” (Fonagy 2004, pp. 14–15). In his theory of *mentalization*, Fonagy emphasizes the psychological mechanisms underlying violent behavior by proposing that violent acts are brought about from an impaired or underdeveloped ability to represent mental states in oneself and others (Levinson & Fonagy, 2004). Fonagy suggests that the child's early relational experiences with caregivers are related intrinsically to her or his ability to recognize aggressive impulses, and to learn alternative ways to express and regulate negative feelings that are more socially accepted than the tantrums, screaming, and temperamental outbursts that can be seen in small children (Allen, Fonagy & Bateman, 2008).

Due to inherent vulnerabilities (as in autistic disorders), traumatic experiences, or difficulties in the interaction within the attachment relationship, the development of mentalizing ability can be delayed or inhibited (Gergely & Unoka, 2008). There is a strong association between parents' capacity for mentalizing and their ability to form a secure attachment to their child (Fonagy, Steele, Steele, Moran & Higgitt, 1991), and children with insecure or disorganized attachment patterns display mentalizing skills later than do securely attached children (Fonagy et al., 1997; Meins, Fernyhough, Russell & Clark-Carter, 1998). Holmes (2006) holds that the antithesis of mentalization is the dysfunction called *alexithymia* (defined as difficulties in identifying and labeling feelings and distinguishing them from bodily sensations). Alexithymic individuals tend to describe and explain their experiences in concrete and externally oriented ways rather than gathering information from their own mental states (Shill & Lumley, 2002).

Regardless of attachment experiences or dysfunctions, temporary problems of mentalizing usually arise in everyone when their emotional arousal is elevated (Fonagy & Bateman, 2006). As Target (2008) emphasizes, mentalizing is to be seen not as a homogenous capacity that is either acquired or not, but rather as a set of more or less sophisticated capacities. Thus, for the same person, some relationships, affects, or situations may be very hard to mentalize, whereas others are not. In patients with panic disorder, mentalizing ability regarding attachment relationships was found to be normal, whereas their ability to mentalize about their panic attacks was significantly lower, indicating that acute symptomatology is more difficult to think and reflect about (Rudden, Milrod, Aronson & Target, 2008).

Lowered mentalizing ability makes interpersonal communication more difficult and increases the risk of misunderstandings and impulsive actions. Allen and colleagues (2008, p 325) explain the essential function of mentalizing in inhibiting aggressive impulses.

[A]lthough a host of risk factors come into play, the final common pathway for acts of violence is the momentary inhibition of mentalizing—temporary mindblindness. Hence, it is difficult to hurt another person while maintaining eye contact, which is conducive to mentalizing, and it becomes progressively easier to do so as the physical and psychological distance increases.

Because mentalizing ability may be stimulated and improved (Bateman & Fonagy, 2009; Levy et al., 2006; Rudden et al., 2008), it is of value to investigate empirically the theoretical link between criminal behavior and problems of mentalizing. Studies of mentalization among criminal offenders have so far been scarce.

Mentalizing ability can be operationalized as *Reflective Functioning* (RF) and measured using the RF scale (Fonagy, Target, Steele & Steele, 1998). Studies of RF have mostly focused on intergenerational transmission of attachment patterns (see Fonagy et al., 1991; Slade, 2005; Slade, Grienberger, Bernbach, Levy, & Locker, 2005). There is also a rather limited number of studies based on clinical samples, showing, for example, reduced mentalizing ability in patients with personality disorders (Fonagy et al., 1996; Levy et al., 2006), in patients with eating disorders (Fonagy et al., 1996; Pedersen, Lunn, Katznelson & Poulsen, 2012), as well as in patients suffering from depression (Fischer-Kern et al., 2008; Taubner, Kessler, Buchheim, Kächele & Staun, 2011). In one of the few existing studies of mentalization in criminal offenders, Levinson and Fonagy (2004) found that the mentalizing ability of criminal offenders

was significantly lower than the mentalizing ability of psychiatric personality disordered patients without a history of offending, as well as of control subjects without a psychiatric condition or criminal record. Furthermore, when the prisoners were divided into subgroups, the criminal offenders whose crimes were violent in nature had lower scores on mentalization than those who had not committed violent crimes.

Vitacco, Neumann, and Caldwell (2010) report that several studies have found general and violent antisocial behavior in adolescents to be moderately predicted by psychopathic traits. A number of studies have found psychopathy to be a strong risk factor for antisocial and violent behavior (Hare 1999; 2003). Taubner, White, Zimmermann, Fonagy, and Nolte (2012) reported a significant, negative correlation between RF and psychopathic personality traits, measured with Psychopathic Personality Inventory-Revised (PPI-R) in adolescent offenders. Furthermore, by mediation analysis they found that high RF seemed to inhibit expressions of aggression.

The present study is part of a research project concerning the use of treatment programs in Swedish prisons. The main objective of this study was to investigate the mentalizing ability in young criminal offenders, both attachment related and specifically regarding their crimes. Previous research has found that more specific measures of mentalization than RF rated on the AAI may be needed to gain more detailed knowledge about mentalizing in particular contexts (Kullgard et al., 2013; Rudden, Milrod, Target, Ackerman & Graf, 2006; Slade et al., 2005). Thus we wanted to find a mentalization measure particularly aiming at offenders' capacity to acknowledge and come to terms with the crimes they had committed and its consequences in terms of mental states in self and others. We developed the crime-specific RF interview, inspired by the panic-specific RF interview developed by Rudden et al. (2006). The results will be presented quantitatively and by case examples, in order to test the feasibility and validity of this

new measure. Of special interest was whether there would be a correlation between level of explicit mentalizing and type of crime committed, with the hypothesis that offenders convicted for violent crimes towards others would have lower scores of RF than offenders convicted of non-violent crimes.

A second aim was to study the relation between RF ratings and psychopathy and alexithymia, respectively, because the latter concepts have been more commonly used in research concerning delinquent or antisocial behavior. Alexithymia has been found to be predictive of interpersonal delinquency in adolescents (Berastegui, van Leeuwen, & Chabrol, 2012).

Method

Participants

Data for the study was collected in a closed medium-security prison with several wards. Two of the wards held young male offenders, aged 18–21. All prison interns who were sentenced to at least three months in prison were informed of the project and invited to participate. Information about the project was given both verbally and in writing. Inclusion criteria were a sentence of three months or more and the ability to speak, read, and write Swedish. The sample consisted of 42 male offenders, convicted of different crimes, the most common of which were robbery, drug offence, and assault and battery. The average age was 20.1 years ($SD = 0.7$ years, range 18–21) and the average length of sentence was 19 months ($SD = 9.6$ months, range 3–54 months). The duration of imprisonment may appear short in relation to the crimes committed, but in the Swedish legal system there is a special treatment for young offenders (up to age 21), where the punishment can be reduced because consideration is given to the age of the offender.

Procedure

One of the authors (either MHL or CM) interviewed the subjects. The interviews were conducted in a private room with glass walls. The interviewee and the interviewer were visible but not audible from outside. The interviews were recorded on video in all cases but one, when the interview was audiotaped, using an MP3 player. All interviews were transcribed verbatim. The AAIs lasted between 28 and 129 minutes, and the crime-specific RF interviews lasted between 7 and 41 minutes. The interviews were coded by one of the authors (CM), who is a licensed RF rater. A random sample of the interviews was also coded by an experienced and licensed RF rater (FF), to establish inter-rater reliability. The subjects were asked to fill out questionnaires with demographic data as well as self-report questionnaires. Interviews and ratings of the degree of psychopathy and antisocial behavior were conducted by one of the authors (MHL), using the Psychopathy Checklist SV.

Measures

Adult Attachment Interview (AAI). The AAI, developed by George, Kaplan, and Main (1985) to investigate the attachment status of adults, is a semi-structured interview with 18–20 questions that aim at eliciting the interviewees' recollections and interpretations of childhood experiences. In this study, the transcripts were used for rating mentalizing ability using the RF scale.

Reflective Functioning Scale (RF). The RF scale is applied by rating transcripts for different aspects of explicit mentalizing. The scale runs from -1 (Negative RF) to +9 (Exceptional RF). The most common level in non-clinical samples is Ordinary RF, a global score of RF 4–5 (Fonagy et al., 1998; Target, 2008), which implies that the interviewees are able and willing to take both their own and other peoples' mental states into account when interpreting various types of human behavior.

Reflective Functioning Crime-Specific Interview (RF CS). This interview was created by the authors (FF and CM, see Appendix). It has three parts, where the first one is focused on the crime/s committed, the second on the imprisonment, and the third on the interviewee's thoughts of the future. It was created to include a range of demand questions (formulated to prompt mentalizing). The interview has a few backup questions in case the interviewee would not admit to having committed any crime. The interviewer is then instructed to focus on the conviction and time spent in prison, rather than on the circumstances in direct relation to the crime.

Toronto Alexithymia Scale (TAS-20); Bagby, Parker & Taylor, 1994; Bagby, Taylor & Parker, 1994). The self-report inventory TAS-20 is the most widely used instrument to assess alexithymia. TAS-20 has shown good reliability and validity (Zimmerman, Rossier, Meyer de Stadelhofen & Gaillard, 2005) and consists of three factors: (1) difficulty identifying feelings and distinguishing them from the bodily sensations of emotion, (2) difficulty describing feelings to others, and (3) externally oriented thinking, meaning a cognitive style characterized by focusing on external events rather than on mental states. In this study, a translated (Swedish) version of the instrument was used. The translated version has shown adequate psychometric characteristics (Simonsson-Sarnecki et al., 2000). The cutoff for alexithymia is $TAS \geq 61$ (Leweke, Leichensring, Kruse & Hermes, 2012).

Psychopathy Checklist, Screening Version (PCL:SV). According to Robert Hare's definition of psychopathy, the concept refers to both personality traits (typically egocentrism and lack of empathy) and antisocial behavior. The most widely used instruments to assess psychopathy are Hare's Psychopathy Checklist, PCL, and its revised version, PCL-R (Hare, 1991). The PCL Screening Version is an abbreviated, less time-consuming 12-item scale (Frodi, Dernevik, Sepa, Philipson & Bragesjö, 2001; Vitacco, Neumann & Woduschek, 2008) with

excellent psychometric properties (Hart, Cox & Hare, 1995). The PCL-SV yields a score of each factor (interpersonal/affective deficits and social deviance/impulsivity) as well as a total score of the degree of psychopathy. The ratings were made by one of the authors (MHL) and based on interviews with prison officers who were familiar with the individual records of the subjects' stay in the prison, as well as with their backgrounds.

Data analysis

Inter-rater reliability rating was performed on 9 of the 42 AAIs. The result showed excellent inter-rater reliability ($r = .93$, ICC = .96). Correlation analyses were conducted using the Pearson Correlation Coefficient. The t-test for independent samples was used for comparison of offender subgroups.

Results

The results of the analyses will be presented quantitatively (in Section 1) and illustrated with case examples (in Section 2).

Section 1

Table 1 shows the mean ratings, standard deviations, and ranges of the RF scores on the AAI, the RF Crime-Specific interview scores, and the scores on PCL and TAS. The mean scores of RF on the AAI in the sample are on the low range of the RF scale, and the distribution of scores shows that 76% of the AAIs are rated as RF 0–3. The RF scores in this sample are comparable to those found in the study by Levinson and Fonagy (2004), where the RF mean score of the group of criminal offenders was 2.11. The PCL scores show that none of the subjects in the sample was classified as being over the psychopathy cutoff, following the recommendations (PCL = 18) by Dernevik (2004). The TAS mean score did not exceed the cutoff for alexithymia, but was nevertheless higher than expected when compared to those reported by Berthoz and Hill (2005).

In the Berthoz and Hill (2005) study of alexithymia, adults diagnosed with autism spectrum disorder were compared with non-clinical adults, and found to score significantly higher on TAS-20 (ASD adults = 60.44, control group = 42.51).

Table 2 shows correlations between the RF scores, the RF CS score, TAS, and PCL scores. RF on AAI and RF CS were significantly and positively correlated, as expected. To interns who did not mentalize about their attachment relationships, the demands of reflection about their criminal actions were also difficult to meet. In addition to the expected correlations between sub-scales of PCL and TAS internally, a statistically significant, positive correlation was found between crime-specific reflective functioning and the subscale of TAS called *difficulty in identifying feelings and distinguishing them from the bodily sensations of emotion*. Thus, higher RF was related to more self-reported difficulty in identifying feelings.

In order to analyze differences in RF with respect to crime type, the subjects were divided into two groups based on whether their principal crime was classified as *violent* (attempted manslaughter, assault and battery, kidnapping, robbery, unlawful threat and attempted blackmail) or *non-violent* (theft, drug offense, smuggling, drunk driving, perjury, arson, trespassing, and fraud). RF on AAI and RF CS were compared between the groups to test the hypothesis that violent crimes are related to lower mentalizing ability. As can be seen in Table 3, there was only one statistically significant difference between the groups. The scores of antisocial behavior on PCL were significantly higher in the violent crimes group ($t = 2.81$, $df = 38$, $p = 0.01$). Contrary to the findings of Levinson and Fonagy (2004), where violent criminal offenders had significantly lower RF scores than non-violent offenders, there was no significant difference between the groups' RF scores in our sample, either on AAI or on the crime-specific interview.

Section 2

How can the ratings of mentalizing ability be understood? To illustrate what a rating of RF means and how mentalizing and prementalizing statements appear, a number of excerpts showing different ratings will be presented. In these case examples of crime-specific RF ratings, all personal details have been altered to protect the anonymity of the subjects.

Jack

An interview with Jack, sentenced to 36 months for assault and battery, kidnapping and robbery. His total score on PCL was 13 (5 on the interpersonal/affective factor, and 8 on the antisocial behavioral factor). His crime-specific RF interview was 31 minutes and rated RF 0 (rejection of mentalizing). The following passage (4 minutes, 40 seconds) was chosen to illustrate an especially anti-mentalizing statement.

Researcher (R): *How do you think he [the victim] perceived what happened?*

Jack (J): *How he perceived it? He stood there lying about everything in court and that kind of crap, he knew very well what it was all about, he knew, he just stood there lying about it, saying it was about something else, so that's what you think about... y'know, what you're gonna do once you get out, are you gonna do something about him or what, maybe you're shouldn't give a fuck about him at all, that's the kind of thoughts you have all the time.*

R: *Um so, how did you react when you heard him lying in court?*

J: *How do you think I reacted?! I just wanted to, I dunno, I don't wanna say that in front of the camera.*

R: *Okay. So, about the kidnapping, what were you thinking [when you went away with him in the car]?*

J: *I dunno...(22 sec) I have no idea...dunno.*

R: *Is it hard to remember? Were you affected by drugs or alcohol?*

J: *No way, I don't do drugs.*

R: *Okay. I just thought, you know, sometimes that can influence one's memory.*

J: *No, no, no, I... had I known he'd report me and that I'd be getting this penalty I'd had beaten him even more...I wouldn't have stopped until, I don't even want him to be able to walk, so I'm just saying, had I known he'd report me, I swear, I wouldn't care how many years I'd get.*

In this passage Jack is very certain of what went on in the mind of the victim during the trial and his statement therefore lacks an important aspect of mentalizing, (i.e., a not-knowing, tentative stance), which can be seen as an example of *psychic equivalence* (a pre-mentalizing mode of functioning described by Fonagy, Gergely, Jurist & Target, 2002). Furthermore, he has obvious difficulty in describing his own mind at the time of the kidnapping. The way he, in his mind, turns to action (“I’d had beaten him even more”) when asked about his thoughts can be seen as a *teleological* mode of experiencing. When prompted, he reports hostile fantasies about the victim and uses the known consequences of his own actions (getting reported to the police) to legitimate even more severe violence. That was considered anti-mentalizing, and the passage was rated -1.

Chris

Interview with Chris, sentenced to 21 months for assault and battery, robbery, theft and blackmail. His total score on PCL was 11 (5 on the interpersonal/affective factor and 6 on the antisocial behavioral factor). The total score of his crime-specific RF interview was 2. The interview in total was 40 minutes long and the passage below equalled 1 minute, 45 seconds.

Researcher: *Do you think being in prison will affect you in any way?*

Chris: *It gives me peace and quiet (uhuh)...I mean like, I mean in my life I've always wanted a TV and a couch, a bed I mean, to just lie down and watch TV and get fat... it has always been like a dream for me, to chill, you know, have peace and quiet and just wind down you know (uhuh)...and that could be like an advantage with this institution, yeah that's right...but uh, like I said, I don't think of this as a prison (okay), not at all like a prison, you know, I mean it's not even remotely like a prison, right, you know 'cause...right, prison, like a prison y'know, there are prisons, literally prisons and uhm it's not even close... this is like a house for us, right... no matter it's closed, it's like a playhouse right, it's like y'know, I dunno what to say...it's too good...from here I can sit 'n watch cartoons all day, it's not like being in a cell with thirty other people waiting for someone to come visit you (right), it's so much better...so basically, I don't get it, why all the fuss? All the drama, all the feelings people show, come ON, seriously, this is such a nice place.*

Chris gives a very different perspective on imprisonment, implying that he does not mind being in jail. Perhaps his idea of prison was so horrible that this institution is rather nice in comparison, but he also implies that it is impossible to understand why anyone would find it unpleasant, thus expressing difficulties in mentalizing ability (“Why all the fuss? Come on, this is a nice place”). Then he gives the impression of being able to do what he wants with his time (“from here I can watch cartoons all day”), which is at odds with observations made at the prison (i.e., interns are obliged to participate in vocational training, treatment programs, or studies during working hours). In terms of mentalizing, his statement can be seen as an example of the pre-mentalizing state of mind called *pretend mode* (Fonagy et al., 2002) in the way that he paints a picture that has little resemblance or connection to reality. This passage was rated RF 2.

Michael

Interview with Michael, sentenced to 24 months for robbery, assault and battery, drug offense, and theft. His total score on PCL was 3 (1 on the interpersonal/affective factor and 2 on the antisocial behavioral factor). The total score of his crime-specific RF interview was 3. The interview in total was 13 minutes long and the passage below equaled 30 seconds.

Researcher: *How do you think it affects your loved ones that you're in prison?*

Michael: *Bad...(right)...it affects them in a bad way...my kid, I wanna be with him, I want to be close to him all the time, because it's my, you know... and my parents I don't know...my brothers and sisters miss me, I think... yeah.*

In this passage, Michael uses mental state words to answer the question. However, mental states are used mainly in a descriptive way, and the statement lacks indications of reflecting upon the feelings described, which is why the statement was rated RF 3—that is, questionable or low mentalizing.

Andy

Interview with Andy, sentenced to 14 months for assault and battery, and illegal threat. His total score on PCL was 6 (2 on the interpersonal/affective factor and 4 on the antisocial behavioral factor). The total score of his 15-minute-long crime-specific RF interview was 4 (i.e., ordinary mentalizing), as exemplified by the following passage (2 minutes):

Researcher (R): *How do you think it will affect you, being in prison?*

Andy (A): *Um...I dunno what to say, they call it treatment, I mean that's just...come on! Treatment? This is no treatment, the only thing that grows in here is hatred.*

R: *What do you mean?*

A: *It's like, I dunno, they um, they treat us like animals, it feels like that you know, like dogs, to them we're like dogs kept on a leash, you know.*

R: *What makes you say that?*

A: *Um, it's, you know the way they talk to us and um, well... I don't know.*

R: *Right, is it like that with everyone? Are all of the guards the same?*

A: *Um, no, no I wouldn't say that...there are those who are really good and then there are some real jackasses, you know.*

R: *Okay, so how can you tell the difference between them?*

A: *You can tell by the way they talk to us, they, some, some show us respect and some, some just don't, not at all...*

R: *What do you do when that happens?*

A: *I get pissed off, I get really, really pissed off you know...but, I mean, it affects me but still I just wanna get out of here, so I won't make a mess of it, I just keep it inside, and hope that it doesn't get out of hand, making me explode. I just wanna do my time and get out of here...so I keep it inside.*

This specific passage was rated RF 5, mainly because of the last part, where Andy recognizes that he keeps his feelings inside rather than displaying them in front of the prison officers, thereby indicating awareness of the nature of mental states (that it is possible to hide one's feelings). He also displays some knowledge of how mental states can influence behavior, that is, he describes a causal relationship between his wish to do his time and his decision to hide his feelings, not trusting himself to show feelings without "making a mess."

Carl

Interview with Carl, sentenced to 36 months for attempted manslaughter, robbery, assault and battery, and illegal threat. His total score on PCL was 13 (4 on the interpersonal/affective factor, and 9 on the antisocial behavioral factor). His crime-specific RF interview was 20 minutes long and given a total score of RF 5. The following passage of 1 minute, 15 seconds was chosen to illustrate the higher levels of RF.

Researcher: *So, um, what about the other guy, what do you think his thoughts were?*

Carl: *When I stabbed him, you mean? Right, um...well I don't know. I mean, I don't know about his thoughts right then 'cause you know he didn't seem to feel anything at all, no pain y'know, since he was so full of adrenaline, and we were both on drugs, but um... but I've seen pictures of him, you know from the wounds and all, and uhm, he does look a bit scared but uh...uuhm, I dunno...it's always like that, y'know, you wanna play it cool and don't be scared but uhm, and he has been threatening me afterwards and all, but during the trial he did say he was scared and uhm... well, I mean I would've been as well if it'd be me, hell, I would've been scared to death, 'specially when stabbed to the chest and neck like that, it was horrible, so much blood 'n all...I would have been terrified.. so I guess he was really scared...*

Carl starts by admitting that he does not know what the victim of his crime had been thinking during the assault, but he continues to think about it and comes up with a hypothesis based on what he observed and what he can imagine that he himself would have felt had the roles been reversed. Thereby he recognizes that his insight into someone else's mind may be limited. He also realizes the existence of diverse perspectives in a situation that involves him as well as another person. Furthermore, he identifies that his victim might have been trying to hide his

feelings (wanting to “play it cool”). Therefore, this passage was rated RF 7, a more advanced level of mentalizing than the ordinary.

Discussion

The aim of this study was to assess mentalizing ability in criminal offenders, to study relations with other measurements that have been found to be associated with criminal behavior, and to describe a way to measure mentalization about crimes.

Three-quarters of the AAIs were rated RF 0–3, pointing to severe difficulties in mentalizing in this sample. The low level of mentalizing ($M = 2.71$) was comparable to that found by Levinson and Fonagy (2004) and strengthens the idea of mentalizing as an important aspect of understanding the psychology of criminal offenders. In the cited study, the group of criminal offenders had an RF level of 2.11, which was significantly lower than that of personality disordered psychiatric patients ($RF = 3.77$) and of somatic patients ($RF = 5$). In the Levinson and Fonagy (2004) study, a difference in RF level was found between two crime types. Violent offenders’ mean RF scores were 1.40, whereas non-violent offenders had a mean RF score of 2.82. This difference was not found in the present study. One possible explanation of this is that the present sample consisted of young offenders, the majority of whom had committed a wide range of crimes. The crime that was defined by the court as the principal crime might not have been representative of their criminal ‘career.’ That is, they may not yet have become ‘specialized’ in performing a certain type of crime. Thus, their crime would not be so closely associated with specific ways of functioning. Another important difference between our sample of violent offenders and the ones interviewed in the study by Levinson and Fonagy was that all victims of violent offenders in the present study were unfamiliar or merely distantly acquainted with the offender (for example, someone in a rival gang), whereas the violent

offenders in Levinson and Fonagy's study were all closely related to their victims (for example, in an attachment relationship). For future research it would be interesting to rate RF CS with offenders who have been convicted of domestic or sexual abuse against partners, or former partners.

No correlations between RF and degree of psychopathy (PCL) or alexithymia (TAS) or type of crime were found, contrary to what was expected. The only exception from this was the moderate, positive correlation that was found between crime-specific RF and the TAS subscale *difficulty identifying feelings*. The interns who were more prone to describe their actions as driven by mental states also reported greater difficulty in identifying feelings. Acknowledging such difficulties may, in this context, be a sign of higher mentalizing, particularly since self-reports of alexithymia in this sample was generally low.

The PCL score did not exceed cutoff for psychopathy in any of the offenders in our sample, which may explain the lack of expected correlations (i.e. the problem of restriction of range). As shown by the illustrations, the ratings of psychopathy was not systematically related to the way the interns understood and spoke about their crimes (for example, both Jack and Carl had a PCL score of 13, and represented the lowest and highest levels of mentalizing, respectively). As can be seen in the case examples the offenders had very different ways of approaching the task of mentalizing about their victims. The RF ratings thus seem to contribute information about the psychological world of these young, criminal offenders that was not captured by the established instruments PCL and TAS. Nevertheless, PCL has shown moderate predictive value in studies of risk factors for antisocial and violent behavior (Vitacco, Neumann & Caldwell, 2010). What then, is the point of yet another measure, such as RF? Of course, a very interesting future study would be to investigate the relation between changes in RF during

imprisonment and relapse in criminal behavior. The PCL instrument has been criticized for overemphasizing the behavioral component of psychopathy (Pedersen et al., 2010), thus not giving much direction as to *why* antisocial behaviors are carried out. On the one hand, critics of the PCL have argued that antisocial behavior should be seen as a secondary symptom, or consequence, of psychopathy, rather than as a core component (Cooke, Michie, Hart & Clark, 2004). On the other hand, Levinson and Fonagy (2004) argue that describing personality traits (such as psychopathy) as causing behavior is an unsatisfying approach when it comes to preventing relapse in violent behavior. By referring to personality traits, there is a risk that too general aspects of the individual's functioning are used as explanations of criminal behavior. It should also be noted that there is a risk of creating a distance between "normal" people and people labeled as "psychopaths" when trait labels are used, making it even more difficult to understand the mind of someone who is capable of committing violent acts toward others (that is, for researchers and prison officers to mentalize offenders). In line with the rationale of treatments aiming at enhancing mentalizing ability (i.e., mentalization-based treatment; Bateman & Fonagy, 2006), being mentalized by those around you is a prerequisite for being able to begin to think about the minds of oneself and others. In future research it would thus be interesting to further investigate mentalizing ability in violent criminal offenders, and what can affect and change the level of mentalizing during the serving of the sentence (for example within treatment programs).

Limitations. This study has several limitations including the lack of a control group and a small sample, which reduces the statistical power. Furthermore, the study did not include measures of the interviewees' language performance, which may be related to their level of explicit mentalization, as suggested by recent research on adolescents (Rutherford et al., 2012).

Rutherford and colleagues (2012) found that receptive language ability (listening) predicts explicit mentalizing in adolescent boys (as measured with the Mentalization Stories for Adolescents, MSA, a scenario-based test consisting of 21 short stories of real-life interactions). The low level of mentalizing seen in our study may be a concomitant of poor language ability.

Even though the subjects all had the same opportunity to present their capacity for mentalizing, given the standardized interviews, the situation was still unfamiliar and the interviewers were unknown to them. Despite the interviewer's efforts to create a relaxed atmosphere and emphasize that the factual circumstances of the crime committed were not the main focus of the crime-specific interview, a few of the interviewees seemed to be reminded of police inquiries during the interview. This might have affected them to restrict their openness in their answers. If so, that may have influenced the level of mentalizing in those interviews. Also, one of the interviewees confided that the video camera gave him performance anxiety: "I'm okay talking to you, but when the camera is on, I feel like it demands perfect answers from me, you know, with perfect grammar and all, and then I just feel like an idiot, talking the way I do." He pinpointed one of the dilemmas of standardized interviews: that a situation created for the purpose of collecting data restricts naturally occurring interactions and spontaneous use of, in this case, mentalization. A more valid method for investigating RF in criminal offenders might be to observe spontaneous mentalizing processes in less structured and naturally occurring situations in the prison environment. Finally, somewhat like the studies of parents and their children, where the parent's RF has shown to play an important part for quality of interaction (Lyons-Ruth, Bronfman & Parsons, 1999), it might be of great value to investigate what relevance the mentalization level of criminal offenders may have for their interpersonal interaction.