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Preliminary Evidence for an Automatic Link Between Sex and Power Among Men Who Molest Children

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Understanding critical motivational processes of sexual offenders may ultimately provide important clues to more effective treatments. Implicit, automatic cognitive processes have received minimal attention; however, a lexical decision experiment revealed automatic links between the concepts of power and sex among participants who self-reported attraction to sexual aggression. The current study replicates this experiment with a group of male child molesters and forensic and analogue controls. Subliminally presented sex words elicited a facilitation effect for power words among child molesters only; that is, sex to power associations were evident, as well as a trend for the reverse. These results provide preliminary evidence for an automatic sex-power association in child molesters and may point to a crucial pathological link in the cognitive schemata of sex offenders. As well, the current study suggests that paradigms from cognitive psychology may contribute to multimodal (risk) assessment of sexual offenders.

Keywords: *sexual offenders; semantic priming; clinical assessment; implicit motivation*

Sexual offending, including child sexual abuse and rape, is a major societal problem. Victims of sexual offenders are vulnerable to major adverse psychological sequelae because of severe traumatization. Victims of rape often qualify for the *DSM-IV* diagnosis of (chronic) posttraumatic stress disorder (Burgess & Hazelwood, 2001), and childhood sexual abuse is a known risk

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factor for a host of adult psychopathology, including severe personality disorders (Cole & Putnam, 1992). A particularly disturbing aspect of sexual offending is its high rate of recidivism, although more recent treatments are making some inroads into this problem. A recent meta-analysis shows that current cognitive-behavioral treatments are associated with reductions in sexual recidivism from 17.4% to 9.9% (Hansen et al., 2002). Nevertheless, the search for novel clues leading toward more effective treatments remains.

One domain that has received little attention in sexual offending research is the exploration of the contribution of preconscious motivational processes. During the past two decades, we have witnessed an explosion of research into preconscious motivation (e.g., Bargh & Ferguson, 2000). The most striking result of this body of research may be the ubiquity of preconscious motivation and the profound impact of automatic cognition on a wide array of human behaviors. Much of mental life (including motivation) occurs without intention, effort, or conscious awareness—is automatic, or under the influence of automatic processes (Bargh & Ferguson, 2000). Dysfunctional, criminal, or sexually deviant behaviors form no exception.

What causes individuals to sexually molest children? A common characteristic of men who molest children is their tendency to employ cognitive distortions that support or condone sexual contact with children. According to Ward and Keenan (1999) these distortions evolve out of so-called implicit theories they have developed about themselves and their victims. These implicit theories are core cognitive schemas, which are largely automatic. Examples of implicit theories of men who molest children are: the adult world is a dangerous place (accompanied by the theory that the child world is the only good and safe place), life cannot be controlled (including the offender's own impulses), child molestation does no harm to the victims (on the contrary, it is beneficial to them), and entitlement (in which narcissistic features are expressed; Mann & Beech, 2003). Implicit cognitive schemas are postulated to facilitate decision making in the direction of sexual offending behavior at an unconscious level.

The lexical decision paradigm has established itself as a powerful method to demonstrate implicit associations in long-term memory between two words or concepts (Balota, Flores d'Arcais, & Rayner, 1990). This method is based on a priming model, which assumes that cues are connected strongly to only some memory records. According to this theory, permanent memory consists of a set of records that can be activated by the presence of certain associated cues. The ability of a specific cue to make associated information more available is called a priming effect (Anderson, 1994). For instance, the word *dog* is associated to records in memory that are connected to the meaning of the word *dog*, such as *cat* or *leash*. By priming the memory with a dog-

related word such as *cat*, the concept of dog becomes more readily accessible. For different people, different concepts are differentially associated in memory.

Few studies have used the prevailing preconscious processing paradigms to elucidate motivational processes among men who sexually offend. One notable exception is an analogue study conducted by Bargh and colleagues (Bargh & Raymond, 1995; Bargh, Raymond, Pryor, & Strack, 1995). Using a subliminal priming paradigm, these investigators examined the possible automaticity in sexual aggression and sexual harassment. The automatic nature of the putative behavior refers to the activation of concepts related to sex through the activation of other concepts (e.g., power), outside the individual's awareness. Bargh (Bargh et al., 1995) showed automatic links between the concepts of power and sex among male students who indicated on a self-report measure that they were attracted to sexual aggression. In other words, the mental constructs of power and sex were associated in men who indicated they were drawn to sexually harass or rape women.

Unobtrusive assessment of preconscious cognitive links and motivation is of particular interest in the forensic population. First, men who sexually offend may not be aware of implicit attitudes and may lack introspective access to what motivates their behavior. One might assume that persons with preconscious sex associations think or act more or less automatically. A man who sexually offends may be "sexually primed" through concepts of frustration or power and thus eventually proceed in committing sexual (offensive) actions or thinking (compulsively) about sex. The preconscious nature of the primed sex drive may contribute to the fact that the offender does not understand why he is sexually aroused to the extent that he is. Second, forensic patients may be invested in presenting themselves in a socially desirable way, for example, to become eligible for parole or termination of treatment. As a consequence, there is a clear need to develop techniques to assess attitudes in ways that circumvent problems resulting from limited introspective access and social desirability concerns.

Following Bargh et al. (1995), and in line with Ward and Keenan's (1999) work, we used a lexical decision task to assess the automaticity of the association between sex and power concepts in men who molested children. It was hypothesized that men who molested children would demonstrate facilitation effects from sex to power and vice versa. As a clinical control group, we included offenders who were nonsexually violent, presumably without the critical preconscious links between sex and power, and a normal control group, consisting of students. In sum, the current study is a clinical replication of the Bargh et al. experiment.

METHOD

Participants

Three groups participated in the current experimental study: (a) men who sexually offend ($n = 10$), more specifically men who molested children, (b) forensic controls ($n = 15$), consisting of offenders who were nonsexually violent, from here on referred to as men who were violent offenders, and (c) student controls ($n = 20$). Men who molested children and offenders who were violent were recruited through the Dr. Henri van der Hoeven clinic, a 130-bed forensic psychiatric hospital in Utrecht, the Netherlands. At the time of the experiment, no females who molest children were in treatment at the hospital, and for this reason only male participants participated in the current study. Ten of 19 men who molested children volunteered for participation (52.6%). Men who molest children were, on average, age 38 years (ranging from 22 to 53), and the average duration of treatment was 58.5 months ($SD = 46.0$). The men who were violent offenders consisted of a mixed group of male patients who had committed various nonsexual violent crimes, including murder (8 participants, 53.3%), attempted murder (5 participants, 33.3%), and violent theft and violent extortion (1 participant or 6.7% each). All forensic participants were treated in the hospital under the so-called TBS-order, which can be translated as "disposal to be treated on behalf of the state" (see Ruiter & Hildebrand, 2003, for a thorough explanation of the Dutch TBS-order). Patients on antipsychotic medication were excluded. Of 44 men who were violent offenders, 15 volunteered for participation (34.1%) in the current study. Men who were violent offenders were, on average, age 33 years (ranging from 22 to 53), and the average duration of treatment was 25.5 months ($SD = 14.3$). Undergraduate male students were recruited through the message boards in the Psychology Department of the University of Amsterdam and given a nominal fee or experimental credit for their course requirements. Their average age was 23 years and varied from age 19 to 40 years.

Materials

In our lexical decision experiment, each trial showed the participant a target string of letters that was either a (Dutch) word or a pronounceable nonword. The participant's task was to decide, as quickly as possible, whether the letter string was a word or a nonword. The response was indicated by pressing a button box on the participant's right side if the string is a word and another button box on the left side if the string was a nonword.

Shortly before the presentation of the target string, the participant was shown a prime, also a word. The lexical decision was to be made on the target string only. Accordingly, three types of trials were presented: (a) nonword trials, where the target was a nonword; (b) unrelated (neutral) word trials, where the target was a word and the prime was presumably unrelated to the target; and (c) possibly related word trials, where the target was a word and the prime and target may have critical associations. It has been shown previously that the reaction times for the related word trials are significantly shorter than for the unrelated word trials (Neely, 1991). This effect is called the *priming effect*. In the current study, we presented the prime subliminally for a period short enough (40 ms) to ensure that conscious processing was impossible.

The lexical decision task was conducted on an Apple 8200 Powermac, using fLexi software.¹ Three types of stimuli were developed: (a) power, (b) sex, and (c) neutral words. All three word types were used as prime and target. The set of power words consisted of *tough*, *macho*, *control*, *impulse*, *superior*, and *dominant* (Dutch: *stoer*, *macho*, *controle*, *impuls*, *superieur*, and *dominant*). For the set of sex words, we followed Bargh et al. (1995) in selecting words that have (in Dutch) a sexual and nonsexual connotation to reduce the probability of creating distortions in reaction time because of embarrassment or surprise at the viewing of sex words that were too explicit. The set of words consisted of *coveting*, *arousing*, *bed*, *kissing*, *attractive*, and *seduction* (in Dutch: *begeerlijk*, *opwindend*, *bed*, *kussen*, *aantrekkelijk*, and *verleiding*).² The set of neutral words consisted of *store*, *space*, *theory*, *warehouse*, *year*, and *balance* (in Dutch: *winkel*, *ruimte*, *theorie*, *magazijn*, *jaar*, and *evenwicht*). The three types of words were matched for frequency of occurrence in Dutch written language using the Celex Lexical Database.³

A total of 144 Prime-Target pairs were constructed.⁴ A nonword was used in one half of the constructed trials (i.e., 72 trials). Each of the critical power and sex words appeared as a prime three times, followed by the three types of target words (the two critical types plus the neutral type). Each type was represented by six words, thus adding up to 36 trials. In the remaining 36 trials, each of the six neutral prime words appeared twice before each target ($6 \times 2 \times 3$). Two random orders of these Prime-Target pairs were constructed.

In addition, participants completed basic demographics questions and the Attraction to Sexual Aggression Scale (ASA; Malamuth, 1989). The ASA was included to replicate Bargh et al. (1995) and as a validity check for our experimental groups. The ASA inquires about the participants' sexual preferences, with the critical items having to do with the attractiveness of rape and forcing a woman to do something sexual she does not want to do. These items are embedded in a questionnaire along with other items concerning conven-

tional and unconventional sexual practices. For each of the sexual activities, the respondent is asked (a) if he ever thought about it, (b) if he finds the idea attractive (1 = *very unattractive* to 4 = *very attractive*), (c) what percentage of men and women would find the idea attractive, (d) how arousing he would find the activity if he were to engage in it (0 = *not arousing at all* to 10 = *very arousing*), and (e) how likely he would be to engage in it if certain he would not be punished for doing so (0 = *not likely at all* to 10 = *very likely*). Malamuth (1989) reported an internal consistency (alpha) of .91 for the ASA scale, with a test-retest reliability coefficient of .76. In the current study, the total ASA score was calculated by taking the sum of the attractiveness, arousal, and likelihood-of-doing items (after transforming the Attractiveness scale into the same metric as the others).

Procedure

Men who sexually offend and forensic controls were informed at the weekly patient council that there was an opportunity to participate in an experiment on attention and intimate relationships. Participation was entirely voluntary, and individual appointments were made with each patient by the experimenter. On arrival, each participant was guided to the experimental room by the experimenter and oriented to the questionnaires and the computer task. They were informed about the personal and private nature of some of the questions. Participants were also assured of complete anonymity of their responses and were specifically told that no information was shared with the hospital staff. The total duration of the experiment was estimated at 45 minutes.

After consenting to the experiment, participants were presented with the computer task. During each trial, a set of characters (XXXXXX) appeared as a fixation point on the screen for 1 second. Primes were subliminally presented for a total duration of 40 ms (i.e., three frames of the screen resolution of 75Hz). After the prime disappeared, a mask similar to the fixation string appeared on the screen for approximately 27 ms. Next, the target word appeared, overwriting the mask, and remaining on the screen until the participant pushed one of the two buttons (right = yes and left = no). If no response was given within 4 seconds, a beep sounded, and the next trial started. Trials were presented in three blocks of 48 trials, preceded by 10 practice trials after completing the computer task; participants were asked to fill out the questionnaire. Participants were informed that written debriefing would follow on completion of the experimental period.

Data Reduction and Analytic Strategy

Outliers in response latencies were eliminated as follows. First, response errors were excluded; that is, participants pressed the nonword button in response to a word-target. Next, response latencies below 100 ms and above 2,000 ms were excluded. Finally, response latencies of three standard deviations above a participant's mean were removed (cf. Mogg, Mathews, & Eysenck, 1992; Ratcliff, 1993).

The final set of response latencies was analyzed using descriptive analyses and a repeated measures ANOVA with Group as the between factor (i.e., men who molested children, men who were violent offenders, students), and Prime and Target (i.e., power, sex, neutral) as within factors. Complex interaction effects were explored with ANOVAs with Tukey's post hoc tests. Facilitation scores were computed by subtracting each of the means involving power or sex primes from the corresponding neutral prime mean, for example, the power-sex mean was subtracted from the neutral-sex mean (Bargh et al., 1995). These facilitation scores thus represented the increase (or decrease, in the case of negative scores) in speed of responding to a particular set of target stimuli because of the presence of a particular type of prime. An alpha level of .05 was used for all statistical tests.

RESULTS

Data Reduction

Forty-five participants completed a series of 72 trials leading to an initial pool of 3,240 trials (45×72). Ninety-two response errors were made (2.8%); associated decision times were excluded. For the remaining trials, the outlier procedure led to the exclusion of another 52 responses. Together, 144 responses (4.4%) were excluded. To see if the number of excluded response latencies differed between the different groups of participants, mean numbers of excluded trials were computed for each group. A Kruskal-Wallis test revealed no significant difference, $\chi^2(2, 45) = 1.51, p = .47$.

Attraction to Sexual Aggression (ASA)

A one-way ANOVA revealed significant differences between the experimental groups on the ASA, $F(2, 41) = 4.64, p < .05$. Consistent with expectation, Tukey's post hoc tests indicated that men who molested children scored

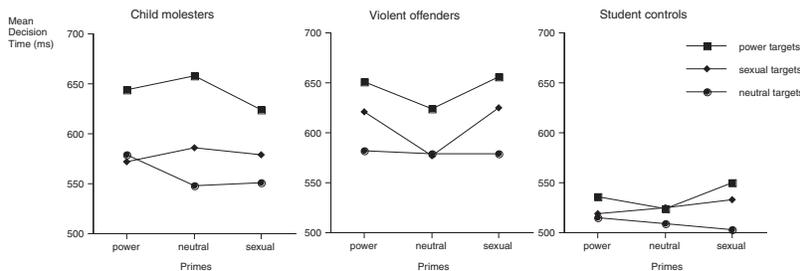


Figure 1: Mean Decision Time (in ms) in a Lexical Decision Task for Group, Prime, and Target

higher ($M = 10.40$, $SD = 4.83$) than men who were violent offenders ($M = 7.11$, $SD = 2.86$) and student controls ($M = 6.93$, $SD = 2.09$) on the ASA.

Main Analyses

Participants' mean decision times varied between 419 and 831 ms; means and standard deviations for each Prime \times Target combination for each condition are shown in Table 1 and graphically depicted in Figure 1. A $3 \times 3 \times 3$ (Group \times Prime \times Target) repeated measures ANOVA was performed on the response latencies. The ANOVA revealed a significant between-Group effect, $F(2, 41) = 5.20$, $p < .01$. Tukey's post hoc tests revealed that students were significantly faster across all Prime \times Target combinations than offenders who were nonsexually violent ($p < .05$). In addition, a main effect was observed for Target, $F(2, 41) = 30.03$, $p < .000$, but not for Prime, $F(2, 41) = 1.91$, $p = .16$. Post hoc contrasts showed that all groups responded slower to power targets than to sex targets, $F(1, 44) = 16.58$, $p < .001$, and to sex targets than to neutral targets, $F(1, 44) = 16.98$, $p < .001$.

The two-way interaction between Group \times Target was significant, $F(4, 82) = 2.56$, $p < .05$, indicating that the response latencies differed between groups according to target (irrespective of prime). No other significant two-way interactions were observed (Group \times Prime: $F(4, 82) = 1.96$, $p = .11$; Prime \times Target: $F(4, 39) = .87$, $p = .49$). Consistent with expectation, the three-way interaction between Group \times Prime \times Target was significant, $F(8, 78) = 2.16$, $p < .05$. To test our hypotheses, critical facilitation scores were computed between Sex-to-Power and Power-to-Sex Prime \times Target combinations. For the Sex-to-Power facilitation, the one-way ANOVA with Tukey's post hoc tests was significant, $F(2, 42) = 3.66$, $p < .05$, and indicated

TABLE 1: Mean Decision Time (in ms) in a Lexical Decision Task for Group, Prime, and Target

Condition	<i>Men Who Molest Children (n = 10)</i>		<i>Offenders Who Are Violent (n = 15)</i>		<i>Student Controls (n = 20)</i>		<i>Total (N = 45)</i>	
	M	SD	M	SD	M	SD	M	SD
	Power targets							
Power primes	644	133	651	135	536	83	599	125
Neutral primes	658	144	624	86	524	67	587	109
Sexual primes	624	157	656	102	550	92	602	120
Sexual targets								
Power primes	572	99	621	89	519	77	565	95
Neutral primes	586	120	577	85	525	98	556	101
Sexual primes	579	110	625	110	533	78	574	103
Neutral targets								
Power primes	579	88	582	59	515	71	552	77
Neutral primes	548	87	579	87	509	61	541	81
Sexual primes	551	84	579	84	503	82	539	88
Total	584	99	602	79	520	70	561	87

that when primed by sex words, men who molested children were relatively faster to respond to power targets than offenders who were violent ($p < .05$) and (marginally so) than student controls ($p = .051$). Conversely, when primed by power words, offenders who were nonsexually violent were slower to respond to sex words than men who molested children and student controls, $F(2, 42) = 4.35$, $p < .05$. These effects can be seen in Figure 2.

DISCUSSION

The major findings of the current study can be summarized as follows. As expected, men who molested children scored higher on attraction to sexual aggression than the forensic and student control groups. On the lexical decision task, student controls responded faster across all Prime \times Target combinations, and all participants responded slowest to power target words (see Figure 1). With regard to the central aim of the current study, that is, investigating the automaticity of sex-power links in men who molest children as compared to forensic and student controls, the following can be concluded. Compared to forensic and student controls, men who molested children

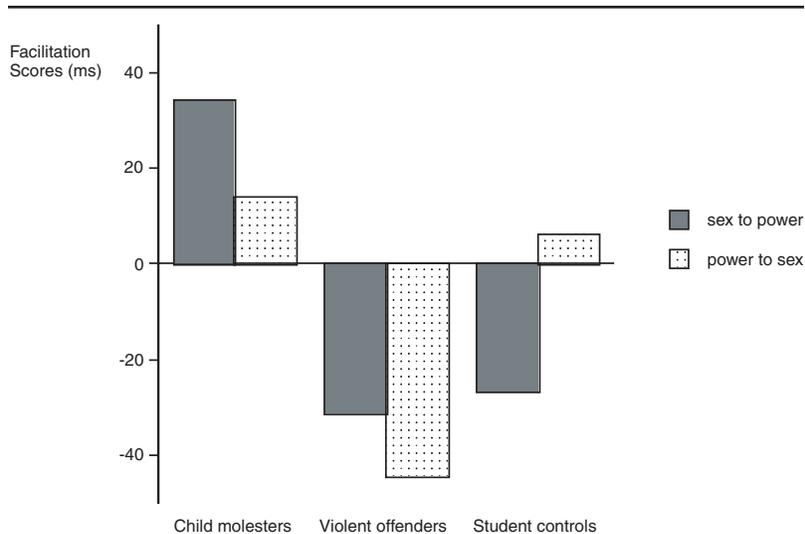


Figure 2: Facilitation Scores (in ms) per Group (cf. Bargh, Raymond, Pryor, & Strack, 1995)

exhibited a significant sex-to-power facilitation effect (i.e., were relatively faster to respond to power words when primed by sex words as compared to when primed by neutral words), and a trend toward a power-to-sex facilitation effect (see Figure 2). Conversely, compared to men who molest children and normal controls, offenders who were violent showed a power-to-sex inhibition effect and a trend toward a sex-to-power inhibition effect. In sum, the hypothesis that power and sex words were preconscious linked in men who molested children could not be rejected. Subliminal activation of the concept of sex led to preferential processing of power-related concepts and likely vice versa (of note, the current study suffered from low power here, $\epsilon^2 = .36$). An unexpected noteworthy finding was the inhibition effect evidenced by the offenders who were violent.

Our results constitute a partial replication of the findings reported in the Bargh et al. (1995) analogue study. Consistent with Bargh et al., our findings suggest a preconscious link between the concepts of power and sex among men who molest children. However, although students who scored high on ASA in the Bargh study responded more quickly to power words when primed by sex words, the link for men who molested children was stronger in the other direction; that is, sex primed power. We can only speculate as to the origin of this difference. Obviously, students scoring high on ASA differ importantly from actual men who molest children. Endorsement of the ASA

items may reflect salient ideation; however, it probably takes other critical ingredients to progress from having these sexually aggressive thoughts to actually carrying out sexual offenses, particularly toward children. Regardless of direction, considering that the content of the power target words is associated with superiority, toughness, and dominance, the association between sex and power may point to a crucial pathological link in the preconscious cognitive schemata of men who were sex offenders, in this case men who molest children.

As a side note, a noteworthy finding in this respect was that the Bargh (Bargh et al., 1995) student group scored higher on the ASA than the current group of convicted men who molested children. This may reflect a heightened social desirability pull among men who molest children, despite assurances that their data would not be shared with the staff nor have any consequences for their treatment. Alternatively, it is well established that men who were sex offenders as a group are especially prone to denial and cognitive distortion of their offense behavior (Ward, Hudson, & Marshall, 1995).

Men who were violent offenders appeared to be hindered by emotionally salient (i.e., nonneutral) primes. Although in need of replication, this unexpected interference effect may point to an unsettling effect of sex and power primes among these individuals, thus hindering information processing. This effect may be akin to the sexual content–induced delay (SCID) phenomenon found in lexical decision tasks by Geer and colleagues (Geer & Bellard, 1996; Geer & Melton, 1997). SCID refers to hesitancy in decision making when erotic material is presented. Sexual (and apparently also power-related) primes may trigger attentional resources and activate regulation processes thereby interfering with the decision-making process (Spiering, Everaerd, & Elzinga, 2002). The interference effect among men who were violent offenders runs opposite to the facilitation effect observed among men who molest children. This may represent qualitative differences in efferent connections between power and sex representations in memory. Regulation (inhibition) processes seem more readily activated by these critical representations in offenders who are violent and students alike.

The findings from the current study support the notion put forward by Ward and Hudson (2000) that early phases of the offensive process may involve automatic actions and implicit planning in men who are sex offenders. Individuals with automatic sex-to-power associations have easier access to power and dominance cognitions when primed with sex-related words. Accordingly, some men who molest children may be “sexually primed” to continue their sexually violent acts. The so-called nonconscious nature of the primed motivation to offend may contribute to the fact that the offender does not understand why he feels the urge to commit a sexual offense. Moreover,

automatic cognitive links may be partly responsible for the high recidivism in men who are sexual offenders. Recent theories of social cognition are based on the assumption that past experience moderates behavior through the elicitation of implicit and explicit cognitions. Implicit attitudes exist outside of conscious awareness and control and shape people's automatic reactions to attitude objects and, thereby, shape their subsequent interactions with them. As such, implicit measures may predict recidivism and serve as a tool in a multimodal outcome assessment of treatment. This is much in line with the hope expressed by Ward, Hudson, and Johnston (1997): "The future development and application of information processing methodologies in the assessment of sexual offenders will hopefully tap automatic processing and, hence, avoid contamination by social desirability factors" (p. 500).

Cognitive behavioral treatment with relapse prevention is currently the dominant treatment paradigm for men who are sexual offenders (Beek, 1999). These treatments aim to raise the offender's conscious awareness of cues that ultimately result in a relapse into sexual offending. The current study suggests that at least in some men who molest children this aim of cognitive therapy will be insufficient to alter the unconscious, automatic processes involved in sexual offending. Instead, explicit motivation (i.e., conscious decision to not offend) needs to override implicit motivation, which implies early detection of cues of activation. Accordingly, men who molest children need to learn what issues, circumstances, and associated idiosyncratic cues make them vulnerable to offend.

On the other hand, given the observed modest effect sizes, an individual differences application of this paradigm is currently a distant target. Perhaps use of more idiosyncratically tailored Prime \times Target combinations and/or more powerful implicit paradigms can strengthen the observed effects and, ultimately, contribute to a comprehensive battery of individual risk assessment for repeated offending. As of yet, however, the main clinical thrust of the present preliminary findings is the increased insight into the motivational processes of men who molest children.

Limitations of the current study should be considered in drawing inferences about motivational processes of men who molest children. The relatively large response variance in the decision time among men who molest children, compared to the other groups, may reflect heterogeneity in this subsample. A major limitation of the current study is its small sample size and the corresponding lack of opportunity for creating subgroups. In part, this problem reflects the difficulty of recruiting real-life men who molest children (or men who are sexual offenders in general) for this type of experimental research. As well, the current study is limited to males who molest children. Extending these findings to other classes of men who are sexual

offenders awaits replication in these populations. An interesting line of research may be to extend this research among rapists and subdivide these rapists according to modus operandi or offense chain scenarios.

Future research should remedy the limitations observed. Given the promising preliminary results, this social cognitive experimental approach to understanding motivational processes among men who are sexual offenders deserves replication on a larger sample. Moreover, in recent years a number of research paradigms have been developed that target implicit motivation and implicit links, most notably the Implicit Association Test (IAT, Greenwald, McGhee, & Schwartz, 1998) and the Extrinsic Affective Signing Task (EAST; Houwer, 2000). Application of these new, quite powerful tasks to the forensic domain may promote larger effect sizes.

NOTES

1. Courtesy of Wim van der Mije, University of Amsterdam.
2. With regard to the selection of sex words, we used different words than Bargh, Raymond, Pryor, & Strack (1995) because of cultural determined differences in associations to words as *motel* and *date*.
3. The Celex Lexical Database, University of Nijmegen: <http://www.kun.nl/celex/index.html>
4. The original design of the experiment aimed to differentiate subtypes of sexual offenders (Beek, 1999) and included another word category (i.e., sexual anger). However, at the time of study the composition of the available forensic population did not allow for subtyping; and we, therefore, adjusted our experiment into the current reported format.

REFERENCES

- Anderson, J. R. (1994). *Learning and memory: An integrated approach*. New York: John Wiley.
- Balota, D. A., Flores d'Arcais, G. B., & Rayner, K. (1990). *Comprehension processes in reading*. Hillsdale, NJ: Lawrence Erlbaum.
- Bargh, J., & Raymond, P. (1995). The naive misuse of power: Nonconscious sources of sexual harassment. *Journal of Social Issues, 51*, 85-96.
- Bargh, J. A., & Ferguson, M. J. (2000). Beyond behaviorism: On the automaticity of higher mental processes. *Psychological Bulletin, 126*, 925-945.
- Bargh, J. A., Raymond, P., Pryor, J., & Strack, F. (1995). Attractiveness of the underling: An automatic power-sex association and its consequences for sexual harassment and aggression. *Journal of Personality and Social Psychology, 68*, 768-781.
- Beek, D. J. van. (1999). *The offence script procedure with sexually aggressive offenders: A study of the utility of the offence script procedure in the treatment of sexually aggressive offenders in the Dr. Henri van der Hoeven Kliniek*. Gouda, the Netherlands: Gouda Quint.

- Burgess, A. W., & Hazelwood, R. R. (2001). The victim's perspective. In R. R. Hazelwood & A. W. Burgess (Eds.), *Practical aspects of rape investigation: A multidisciplinary approach* (pp. 29-46). London: CRC.
- Cole, P. M., & Putnam, F. W. (1992). Effects of incest on self and social functioning. *Journal of Consulting and Clinical Psychology, 60*, 174-184.
- Geer, J. H., & Bellard, H. S. (1996). Sexual content induced delays in unprimed lexical decisions: Gender and context effects. *Archives of Sexual Behavior, 25*, 379-395.
- Geer, J. H., & Melton, J. S. (1997). Sexual content-induced delay with double-entendre words. *Archives of Sexual Behavior, 26*, 295-316.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology, 74*, 1464-1480.
- Hanson, R. K., Gordon, A., Harris, A. J. R., Marques, J. K., Murphy, W., Quinsey, V. L., et al. (2002). First report of the collaborative data project on the effectiveness of psychological treatment of sex offenders. *Sexual Abuse: Journal of Research and Treatment, 14*, 169-197.
- Houwer, J. de. (2002). The Implicit Association Test as a tool for studying dysfunctional associations in psychopathology: Strengths and limitations. *Journal of Behavior Therapy and Experimental Psychiatry, 33*, 115-133.
- Malamuth, N. M. (1989). The Attraction to Sexual Aggression Scale: Part one. *Journal of Sex Research, 26*, 26-49.
- Mann, R. E., & Beech, A. R. (2003). Cognitive distortions, schemas and implicit theories. In T. Ward, D. R. Laws, & S. M. Hudson (Eds.), *Sexual deviance: Issues and controversies* (pp. 135-153). Thousand Oaks, CA: Sage.
- Mogg, K., Mathews, A., & Eysenck, M. (1992). Attentional bias to threat in clinical anxiety states. *Cognition and Emotion, 6*, 149-159.
- Neely, J. H. (1991). Semantic priming effects in visual word recognition: A selective review of current findings and theories. In D. Besner & G. W. Humphreys (Eds.), *Basic processes in reading: Visual word recognition* (pp. 264-336). Hillsdale, NJ: Lawrence Erlbaum.
- Ratcliff, R. (1993). Methods for dealing with reaction time outliers. *Psychological Bulletin, 114*, 510-532.
- Ruiter, C. de, & Hildebrand, M. (2003). The dual nature of forensic psychiatric practice: Risk assessment and management under the Dutch TBS-order. In P. J. van Koppen & S. D. Penrod (Eds.), *Adversary vs. inquisitorial justice: Psychological perspectives on criminal justice systems* (pp. 91-106). New York: Plenum.
- Spiering, M., Everaerd, W., & Elzinga, E. (2002). Conscious processing of sexual information: Interference caused by sexual primes. *Archives of Sexual Behavior, 31*, 159-164.
- Ward, T., & Hudson, S. M. (2000). Sexual offenders' implicit planning: A conceptual model. *Sexual Abuse: Journal of Research and Treatment, 12*, 189-202.
- Ward, T., Hudson, S. M., & Johnston, L. (1997). Cognitive distortions in sex offenders: An integrative review. *Clinical Psychology Review, 17*, 479-507.
- Ward, T., Hudson, S. M., & Marshall, W. L. (1995). Cognitive distortions and affective deficits in sex offenders: A cognitive deconstructionist interpretation. *Sexual Abuse: Journal of Research and Treatment, 7*, 67-83.
- Ward, T., & Keenan, T. (1999). Child molesters' implicit theories. *Journal of Interpersonal Violence, 14*, 821-838.

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