

Experts in rape: evaluating the evidence for a novice-to-expert continuum in the offense
behavior and cognition of sexual offenders

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Abstract

Despite being over 15 years old researchers have been slow to adopt the competency or expertise perspective advocated by Ward (1999) as a complimentary viewpoint to the dominant deficit model of sexual offending. A growing body of research on the behavioral and cognitive impact of expertise suggests that it is timely to revisit the question of whether individuals can become expert at rape. This review summarizes the key points in Ward's theory and evaluates the scant research that could lend it support. The expertise perspective is a fertile area for future research and may provide a mechanism for explaining the relationship between explicit and implicit measures of distorted cognition. The review makes suggestions for future research and appraises the clinical implications of considering sexual aggressors as novices or experts.

Keywords: Expertise, rape; sexual offending; cognitive distortion; offending behavior

1. Introduction

There are many discourses on sexual aggression and aggressors. These discourses often differ in the degree to which they see the aggressor as deficient or expert in some relevant characteristics. In the public media, sexual aggressors are often referred to as *predators* or conceptualized as calculating groomers of their victims. This implied attribution of expertise is in contrast to the prevailing deficit-based view of sexual aggressors from within the field of offender rehabilitation. The risk factors and treatment needs of sexual offenders are mostly framed around inabilities; the inability to emotionally regulate, the inability to inhibit behaviors, the inability to suppress deviant fantasies. In this way those working in research and practice concerned with rehabilitation may see sexual offenders as novices in need of developing expertise in their own risk management. The general public on the other hand may see them as expert hunters or manipulators of their potential victims. As is often the case, one viewpoint may benefit from adopting elements of the other.

There is a growing body of literature on the psychological nature and consequences of expertise across many domains (Nee & Ward, this issue). In other words, as individuals gain expertise in a given domain, there are measurable changes in their cognitive processes and behavior surrounding that domain. With sufficient rehearsal and repetition, an individual may become expert in a particular area, regardless of whether that behavior is prosocial or antisocial. Sexual offending is unlikely to be an exception. In 1999, Ward examined the case for a competency model of sexual offender behavior. In it he presented a compelling argument for the utility of this alternative view, not as a replacement for the more standard deficit model, but as a complimentary viewpoint that may help explain behavioral, cognitive, and treatment efficacy variability along a novice to expert continuum among sex offenders. However, this paper, and indeed this theoretical viewpoint, was not widely influential in the

sex offending literature. Furthermore, any influence it has had has tended towards research examining expertise in sexual offending against children (e.g. Bourke, Ward, & Rose, 2012) and not on the victimization of adults. This is unfortunate as Ward makes some clear conclusions about expertise and rape.

Acknowledging some of the differences between the development of expert artistic or sporting skills and the development of criminal competency, Ward (1999) identified several ways in which the concept of expertise could be applicable to sexual offenders. Among these are that most sexual offenders evade capture for their offenses, many have long offending careers, they often have considerable knowledge about their offending group, and experienced offenders may have skills in detecting vulnerable victims or controlling their victims. Ward concludes that sexual offenders will fall along a continuum from novice to expert in the specific domain of their offending. As a result he proposes that those nearing the expert end of the continuum will have “knowledge structures related to their offending that are qualitatively different” (p. 301) from less experienced offenders. Ward argues that individuals with a long history of sexual assaults will have scripts for offending and hold offense-supportive core beliefs. They will also be able to draw on many real examples of victim responses etc. based on their offending history. Together these knowledge structures would allow the offender to make rapid decisions in offending situations and “encode information in offense-related domains in an integrated and holistic way” (p. 301).

Individuals at the opposite side of the continuum, according to Ward, have knowledge structures that are less integrated and cannot draw on real-life examples in interpreting victim behaviors. While they may express some of the same distorted attitudes, they may hold them with less conviction. In terms of tangible competencies, Ward sees expert sexual offenders as more adept than novices at detecting and responding to emotional vulnerabilities in potential victims, better at monitoring risk to avoid detection, better at manipulating or disarming

victims, deceiving authorities and maintaining normal relationships with friends, families, and partners. Expert rapists may show better emotional regulation, and be able to problem solve and plan more effectively within the context of committing sexual offenses. Ward (1999) does not explain in detail the mechanisms for some of these skills, such as superior risk monitoring. However, the general literature on expertise demonstrates that the increased automaticity of offense related tasks or processes may free up more cognitive resources to multi-task affording the expert rapist with a greater ability to monitor their surroundings (see Nee and Ward, this issue for a detailed examination of the cognitive mechanisms underpinning expert performance). This yields clear predictions for empirical findings with expert sexual offenders additional to those proposed by Ward, namely that experts have more efficient cognitive processes for domain specific tasks. As a result expert sexual offenders will be more successful than novices at domain specific tasks under conditions where cognitive load is increased. Relatedly, experts will have superior performance on an unrelated task when conducting a domain specific task simultaneously, due to the assertion that experts will carry out the domain specific task more efficiently retaining greater cognitive resources for the unrelated task.

One of the greatest challenges in accepting the expert criminal concept (the public media discourse aside), is that while chess experts, astronauts, sports people etc. spend countless hours engaging in their expert activities, the absolute frequency with which most criminals commit their crimes is much lower. For example, two thirds of a sample of active burglars reported committing 10 or less burglaries a year (Wright & Decker, 1994) and a sample of non-incarcerated rapists had committed an average of seven rapes each (Abel, Becker, Mittelman, & Cunningham-Rathner, 1987). However, individuals may achieve *functional expertise* in a domain over much shorter time periods whereby their competency can be considered expert relative to a novice (Nee & Ward, this issue). Additionally, there are

many ways in which sexual offenders may develop expertise without the commission of a contact offense. Ward (1999) outlines several mechanisms that may plausibly relate to the development of offense-related knowledge and skills. These include “covert modelling and rehearsal (e.g., in the form of sexual fantasies), observational learning (via other offenders), symbolic modelling (e.g., cultural products such as films, literature, or pornography), and finally through an offender’s own experience of early sexual or physical abuse” (p.302-303).

As previously mentioned, very little research on sexual aggression since Ward’s (1999) theoretical paper has explicitly focused on comparing experts with novices, or has included level of expertise as a covariate or moderator. As a result, the task of examining the veracity of Ward’s hypotheses depends on examining empirical studies that may contain variables that could be considered proxies for expertise, or comparing studies that ask similar questions of different populations, populations that may differ on their level of expertise. In the following sections, I first examine whether the offense behavior of rapists supports the conclusion that certain individuals develop expertise in this domain. Later I will examine whether there is evidence for differences in the knowledge structure of sexually aggressive men depending on where they fall on the novice – expert continuum.

2. Evidence for expert/novice differences from the offending behavior of rapists

As the literature does not tend to explicitly report differences between expert and novice rapists, other variables must be used as proxies for this distinction. These proxies are admittedly imperfect and I will address some of these limitations later. One such proxy is to compare single with serial rapists. Samples of serial rapists or an examination of crimes believed to be linked to earlier rapes by the same offender are likely to contain more expertise than single rapes as a function of a longer offending career. Park, Schlesinger, Pinizzotto, and Davis (2008) found that serial and single rapists differ in their offending behavior, with serial

rapists demonstrating greater criminal sophistication including being more likely to gag their victim, show forensic awareness, deter resistance, and complete the rape. The same study found single victim rapists on the other hand were more likely to be violent and to display greater interpersonal involvement with their victim, for example by inducing the victim to participate in sexual activities. These findings could indicate superior detachment and competency among serial rapists. However in this sample a greater number of serial offender cases involved stranger victims than for single offenders. As a result, differences may be due in part to differences in the victim-offender relationship rather than due to duration of offending career. Examining only stranger rapists, Davies, Wittebrood, and Jackson (1997) found that rapists who took steps to avoid leaving semen at the crime scene were almost four times as likely to have previous convictions for sexual offenses, compared with those who did not. However, they were also three times as likely to have convictions for robbery, suggesting that this apparent “expertise” in forensic awareness may not stem from an expertise specific to rape and sexual assault but perhaps from a more general criminal expertise. This is consistent with findings that many if not most apprehended rapists can be considered generalist rather than specialist offenders (Lussier & Cale, 2013). It is worth noting that expert burglars, for example, have been shown to have domain specific expertise relative to other general offenders (Logie, Wright, & Decker, 1992). Future research should examine whether experienced rapists have improved domain specific memory performance relative to other offenders, such as in the recognition of rape related cues.

Comparing the crime scene behavior of single offense and serial apprehended stranger rapists, Slater, Woodhams, and Hamilton-Giachritsis (2014) found that most behaviors did not differ significantly between both groups. However they did find that serial rapists more frequently used solicitation to gain access to victims. The selection of prostitutes could be interpreted as demonstrating better decision making as prostitutes would be easier to isolate,

less likely to report an attack, and may be taken less seriously by police, maximizing the offender's potential for evading conviction. However, it could of course be argued that rapists who preferentially target prostitutes are simply more likely to avoid conviction and therefore are more likely to serially offend regardless of expertise.

An alternative to between-groups designs in seeking expert/novice differences in the behavior of rapists is to examine the offending careers of serial rapists, for evidence of increasing expertise. Cale, Lussier, & Proulx (2009) found that trajectories of sexual offenders characterized by early persistent antisociality began non-sexually offending earlier and had a more diverse offending repertoire compared with later onset offenders who tended to specialize more in sexual offenses. Unfortunately it is difficult to draw clear conclusions from this regarding the development of expertise, as both specialism and generalism could be argued as different expressions of expertise. Interestingly Slater et al (2014) report the frequency of many different crime scene behaviors for both the first and the last offenses committed by the serial offenders in their sample (mean series length was 4 offenses). If these individuals were developing expertise over the course of their offending careers, it would be expected to see evidence of increasing sophistication in terms of forensic awareness and possibly in terms of controlling the victim. The study did not report the statistical significance of a direct comparison of the first and last rape crime scene behaviors. However, some compelling patterns included that, relative to their first rape, during their last offenses serial rapists were more likely to solicit victims, gag or cover their mouths, bind them, showed the victim a weapon but not use it, and bring a pointed weapon. They were also less likely to vaginally or anally penetrate the victim with their penis, or force the victim to perform fellatio (while being more likely to perform oral sex on the victim or to masturbate). Stressing that these differences may not be statistically significant, differences between the first and last offense appear indicative of increased planning and forensic awareness, or possibly a

more honed offense script that includes only the rapist's preferred methods of victimization (less experienced rapists may be engaging in greater numbers of behaviors in the sexual domain). However there are also differences that suggest less forensic awareness, or at least complacency or over-confidence, such as that they were less likely to wear gloves during the final assault, and were less likely to use a condom (though this of course could have been explained by the fact that fewer serial rapists penetrated their victim with their penis during their final rape).

The crime-linkage literature provides a mechanism for examining expertise in serial crime. Woodhams, Hollin, and Bull (2007) argued that increased expertise in a crime should be associated with greater behavioral consistency between crimes committed by that person. However, research to date has failed to identify greater behavioral consistency indicative of expertise (e.g., Grubin, Kelly, Brunson, & Britain, 2001; Woodhams, Hollin, & Bull, 2008; Woodhams & Labuschagne, 2012). Woodhams and Labuschagne (2012) examined the similarities of pairs of rapes that were either linked (committed by the same offender) or unlinked (committed by different offenders). They examined whether these pairs exhibited greater behavioral similarity when they were temporally proximal. If offense behavior changes as expertise develops, they would have expected to see the greatest similarity between offenses that occurred at approximately the same time-point in this development. As with a previous study using a smaller sample of juvenile serial stranger rapists (Woodhams, et al., 2008), there was no evidence for a strong negative correlation between temporal distance between pairs and behavioral consistency. Therefore it did not appear that offenses that were closer in time held more similarities than those that were further apart. To investigate further Woodhams and Labuschagne (2012) looked specifically at the first pair and last pair of rapes by rapists in their sample who had committed five or more rapes ($n = 9$), that were brought to official attention. For seven of the nine series examined behavioral

consistency was higher for the final pair in the series than for the first, though this increase in consistency was small in some cases. This could be interpreted as extremely tentative support for increasing expertise for some of these individuals. Given the infancy of this vein of research and the extremely small sample sizes involved it is difficult to draw firm conclusions. Therefore, even a small indication of increased expertise warrants continued investigation as the number of comparable crimes increases over time. Additionally, it is worth considering whether it is necessarily the case that increased expertise would lead to greater behavioral consistency in all variables, as you might in fact expect to see greater versatility in offending behavior, albeit in the direction of greater control or efficiency etc.

Another proxy for expertise might be to examine the offense characteristics of sexual offenses committed by apprehended compared with unapprehended offenders. The population of unapprehended offenders would arguably contain more experts than the apprehended population, as they had successfully evaded prosecution. Unfortunately very little research compares these groups. LeBeau (1987) examined offense characteristics of single, serial and at large offenders responsible for 612 crimes. Stranger and acquaintance rapists were included in the sample, though the unsolved offenses were overwhelmingly committed by strangers, as might be expected. The pattern of offending for serial offenders and unapprehended offenders was notably similar. There was a tendency for unapprehended rapists to travel shorter distances with their victims, perhaps indicating better planning, greater confidence, or more efficient offending. However, there were no findings in the study that would support a clear conclusion of greater expertise among unapprehended rapists when compared with serial rapists. Unfortunately, at the time of writing there are no additional studies that examine whether sexual assaults committed by offenders still at large show characteristics indicative of expertise among the perpetrators, and indeed whether

apprehended and unapprehended serial offenders should be considered separate populations in terms of expertise.

Taken together, while there are some indicators there is little clear evidence for expertise in rape from the literature that examines offense behaviors. In other words, more experienced rapists do not appear to be executing their crimes in a more expert fashion. However, this conclusion is tentative given that studies do not examine expertise directly, and even when applying proxies for expertise, the research literature simply does not contain the data that would support or falsify the thesis that expertise in sexual assault should manifest in the offense behaviors of certain individuals. An additional proxy might be to look at whether there are differences between acquaintance rapists and stranger rapists that could be attributed to greater levels of expertise among stranger rapists. Rapes by acquaintances are more common, and associated with less weapon use than stranger perpetrated rape (e.g., Jones, Wynn, Kroeze, Dunnuck, & Rossman, 2004; Stermac, Du Mont, & Kalemba, 1995). Degree of violence and injury differs across studies and may depend on the nature of the relationship between perpetrator and victim for acquaintance rape (Möller, Bäckström, Söndergaard, & Helström, 2012). However, once again the literature does not examine variables that might differ across these groups and that may evidence enhanced decision making.

It should be apparent that proxies for expertise are a poor substitute for well-designed research with a priori hypotheses based on the relationship between expertise and the offending behavior of rapists. For example offenders with one conviction, and therefore considered as single rapists, may have multiple unconvicted offenses. Similarly, acquaintance rapists may have developed an expertise in that specific domain or again have multiple undetected rapes in their backgrounds. At the very least, future researchers should include variables such as duration of offending career in their experimental design where possible.

Additionally, it may be fruitful to look for substantive differences between offenders whose offense behaviors appear indicative of expertise and those who appear more novice-like. They may, for example, differ on factors such as duration of offending career, age at first offense, frequency of previous offenses, or perhaps even level of violent pornography consumption or other potential indicators of the development of a domain specific expertise. While it is disappointing that the research on offense behaviors does not tell us much about the presence of expert rapists or the presence of a continuum of expertise, it is encouraging that research such as that conducted by Woodhams and colleagues is explicitly asking questions about expertise (Woodhams, et al., 2007; Woodhams & Labuschagne, 2012).

3. Evidence for expert/novice differences from the knowledge structures of rapists and rape-prone individuals

As highlighted above, deducing increasing expertise across the offending career of rapists from their offense behaviors is fraught with difficulties. Examining whether sex offenders demonstrate differences in their knowledge structures as hypothesized by Ward (1999) faces many of the same challenges. Ultimately, since researchers have not designed their studies to examine expert – novice distinctions, conclusions must again be teased from the literature risking the identification of evidence where there is none, or missing something compelling. Fortunately, the examination of the hypotheses relating to knowledge structures, expertise, and rape are relatively straightforward to examine even if the literature is yet to do so. Extant methods can already probe the cognitive processes of offenders through the use of interview, questionnaire, indirect information processing methods, as well as through neurocognitive approaches.

According to Ward (1999), a central knowledge structure that expert sexual offenders might hold is in the form of offense scripts. Offenders may hold a cognitive template for

offending, involving interconnected scripts for selecting victims and carrying out offenses, easily retrieved solutions to deviations from this script, examples of past victims that may be brought to mind to aid interpretation of a current offending event. The activation of these structures within cognition will readily activate other related scripts such as how to behave following an offense to attempt to avoid detection. Rapists are hypothesized to hold distorted cognitions about the world, their victims, and their offenses (Polaschek & Gannon, 2004; Polaschek & Ward, 2002). Ward (1999) argues that such distorted cognitions are imbedded in offense scripts, and as such are likely to be held more implicitly for expert rapists than novices. Based on the hypothesis of a novice–expert continuum he argues for a quantitative rather than a qualitative difference between experts and novices with regard to their knowledge structures. Those less experienced offenders will have less integrated and defined scripts in their implicit and explicit memories, and be able to draw on fewer case examples. As a result Ward suggests that novice sexual offenders would be poorer in victim selection and planning.

Beauregard and Leclerc (2007) examined the decision making process in a sample of serial sexual offenders with stranger victims, three quarters of whom had offended against at least one adult victim. They report that their sample engaged in decision making and acted with bounded rationality. They found considerable variability in planning and the types of strategies adopted to avoid detection, but there was also evidence that offenders were adaptable to the particular offending situation. They also reported that some offenders refused to adopt strategies that might facilitate the completion of the sexual assault but that they considered incompatible with their modus operandi. In other words, offenders showed reluctance to deviate from their established crime scripts.. As all participants in the study were serial offenders, it can be assumed that they had some degree of expertise.

Unfortunately, the study did not examine whether decision making within the offense was

more rational as a function of the duration of the offending career. There is also no comparable research with single offense rapists.

Ward's (1999) assertion that expert sexual offenders would have more established and integrated domain specific knowledge systems leads to clear testable hypotheses about differences in information processing between experts and novices. Those holding these knowledge structures are hypothesized to make decisions more rapidly and "encode information in offense-related domains in an integrated and holistic way" (p. 301). As a result distorted utterances or questionnaire responses for expert offenders will more likely represent true implicit theories (Ward, 2000) than post offense minimization. The novices on the other hand will be characterized by distorted attitudes that are more loosely held or make statements that seek to minimize their culpability.

The current state of the research on cognitive distortions is frustratingly equivocal (for a review, see Ó Ciardha & Ward, 2013). While there is a large amount of evidence that the statements, questionnaire responses and interviews of sexual aggressors are characterized by content broadly indicative of structured beliefs underpinning and supporting offending (e.g., Bumby, 1996; Murnen, Wright, & Kaluzny, 2002; Polaschek & Gannon, 2004), the empirical evidence of an impact of these beliefs on information processing is sparse (Ó Ciardha & Ward, 2013), especially in reference to rape. In other words, it often appears that offenders explain or justify their behavior with recourse to apparent criminogenic beliefs but it does not appear in empirical settings that they interpret and categorize stimuli through the lenses of these beliefs. A limitation of these experimental designs is that they may not always have sufficient ecological validity or may not place participants under offense-precipitating conditions (e.g. disinhibition, arousal, stress) that may encourage participants to resort to schematic belief systems as decision-making heuristics. In dual-process terms, these empirical studies may allow System 2 too much control over the decision-making process.

According to Kahneman (2011), System 2 “allocates attention to the effortful mental activities that demand it [and] ... are often associated with the subjective experience of agency, choice, and concentration” (p. 21). System 1 on the other hand refers to those cognitive processes that operate “automatically and quickly, with little or no effort and no sense of voluntary control” (Kahneman, 2011, p. 20).

The literature attempting to experimentally show the presence of distorted cognitive structures has missed an opportunity by ignoring Ward (1999). Or at least, it has missed a variable of interest. Ward’s theory would suggest that expert sex offenders would show the largest effects when measuring implicit theories or cognitive distortions through indirect methods. The chronic accessibility and automaticity of offense-supportive beliefs should increase as a function of repetition of offending and offense paralleling behavior (including fantasizing about offending). Research, however has failed to take into account level of domain specific expertise, or proxies for it such as duration of sexual offending career or number of previous sexual offense convictions, as a potential mediator or moderator between implicitly-held cognitive distortions and explicitly-reported offense-supportive statements. Returning to the dual-process view, System 2 may be responsible for post-offense minimizations where they are constructed effortfully, but System 1 may produce similar cognitive products arising out of entrenched schema only (or predominantly) in more expert offenders. One avenue of future research to consider is whether virtual reality based reenactment of the offence process of rapists may offer a context rich enough to facilitate more automatic decision making thus offering insight into real-time rape-related cognitive processing. This type of approach of course would hold ethical challenges.

The possible confounding effect of expertise in the measurement of distorted cognitive structures and processes is potentially problematic. Indirect tests such as the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998), lexical decision tasks

(e.g. (Blake & Gannon, 2010; Kamphuis, De Ruiter, Janssen, & Spiering, 2005; Keown, Gannon, & Ward, 2008), and interpretive bias tasks (Copello & Tata, 1990) among others that may be used to attempt to measure schematic associations indicative of beliefs etc. typically require pilot testing and evidence of construct validity before attempting to access large samples of an offending population. One method of such piloting is through the use of rape-prone men as a proxy for rapists, following the assumption that they are cognitively similar. However, by definition those who are rape-prone but have not sexually aggressed are novices and may as a result lack consistency and integration in their cognitions around rape. To illustrate, Blake and Gannon (2010) found that scores on an explicit questionnaire of rape-supportive beliefs was predictive of self-reported rape proclivity but that results of an implicit lexical decision task (LDT) were not. Their implicit measure was a well-designed task which asked people to state whether a stimulus that followed a sentence stem was a word or a non-word. Where the stimulus was a real word and completed the sentence in a rape-supportive implicit theory consistent manner, it was expected that those with higher rape proclivity would show quicker response times. In considering the reasons behind the lack of a relationship between the implicit measure and rape proclivity, Blake and Gannon suggest that their LDT task may have had methodological limitations, which may indeed have resulted in this null finding. They also offer as an explanation the possibility that rape-prone men, and by extension, rapists, may not hold implicit theories as conceptualized by Polaschek and colleagues. However, this extrapolation assumes that the relationship between cognitive products and the underlying processes and structures should remain constant between novice (absolute novices, in the case of rape-prone but non offending men) and expert rapists. Ward's (1999) position suggests that similar questionnaire responding across novices and experts might represent separate underlying cognitive processes. Researchers looking for

evidence of this should examine whether an extension of Blake and Gannon's study using expert rapists yields more coherence between implicit and explicit measures.

As with the literature on the offense behavior of rapists, it is currently not possible to conclude that there is evidence for changes in the knowledge structures of rapists as a function of expertise. Despite this, the potential power expertise has in explaining when we might expect explicit rape-supportive questionnaire or interview responses to converge and diverge with implicitly measured cognitive distortions, suggests that researchers should incorporate an examination of expertise into their research agendas. However, it is worth sounding a note of caution from another strand of research. If questionnaire responses from novices that appear to endorse distorted views are truly the outcome of cognitive processes that are less stable and entrenched, researchers might expect to see evidence of more distorted responses when questionnaire measures of cognitive distortions are presented after rape proclivity measures in novice rapists/ rape-prone individuals. In other words, only when they have admitted an arousal to or a propensity towards rape should they feel cognitive pressure to justify or minimize their responses. However, a series of studies by Bohner and colleagues appears to show the opposite finding. They found the correlation between rape myth acceptance and rape proclivity was stronger when rape myths were presented first (Bohner et al., 1998; Bohner, Siebler, & Schmelcher, 2006). This suggests that the accessibility of rape myths appears to heighten self-reported rape proclivity rather than men seeking to minimize or excuse their proclivity by citing myths or distortions about rape. Only well designed studies will tease apart the relationships between rape proclivity, excuse making/minimizations, truly distorted belief structures, and expertise.

4. Sex offenders as experts but without expert performance

Ward (1999) expresses concern at equating expertise in sexual offending with non-criminal expertise given that while expert chess players for example may regularly pick the best moves, offenders may often misinterpret the actions of their victims. Some of this apparent limitation of the sexual offenders as experts position is accommodated by the suggestion that the sex offender will fall along a continuum of expertise and most will not reach the level of domain specific expertise demonstrated by chess masters. However, even genuine experts can risk impaired performance under certain circumstances. Dror (2011) states: “paradoxically, the very underpinning of expertise can entail degradation in performance as well, such as tunnel vision and biases. These are inherent cognitive trade-offs resulting from the brain functions of experts” (p. 177). It is important to consider two additional factors regarding expertise and their relevance to sexual offenders; whether the domain of sexual offending allows truly expert performance, and whether there are cognitive drawbacks of expertise for the rapist.

Kahneman and Klein (2009) argue that two factors are required for skilled intuition – (1) an environment of high-validity, and (2) adequate opportunity to practice. By high-validity they mean an environment that is sufficiently regular in terms of the relationship between cues and events or the outcomes of actions to be predictable. Kahneman and Klein argue that if the environment provides good feedback and valid clues, individuals who have sufficient talent will eventually develop expert intuition and skill. High-validity in the context of rape would be situations in which an offender could reliably anticipate victim response, bystander presence, and other factors related to the successful completion of their offense. Clearly, certain types of rape may increase the validity of the environment. For example, marital rape occurring in the home with a well-known victim may have higher validity than date rape, which in turn would have higher validity than a stranger rape committed in public.

It is interesting to consider the implications of high validity environments when considering how fantasy or rape-themed pornography may play a role in the development of rape expertise. In one way these environments present a highly valid learning platform for the offender. Cues and actions always meet with predictable outcomes as they are the imagined responses of ideal victims or are scripted in the case of pornographic materials. Though, while these processes may yield expert-like confidence, and may aid detailed planning, they may not yield expert levels of successful offending when faced with lower-validity real life offending situations. Kahneman and Klein (2009) stress that “subjective confidence is... an unreliable indication of the validity of intuitive judgments and decisions” (p. 524). As a result, while offenders who engage in a lot of what may be considered rehearsal through fantasy and/or pornography may develop expert-like offense scripts and confidence, they may misinterpret or fail to anticipate the actions of their victims as a result of the low validity of the offending environment.

Information processing depends on both top-down and bottom-up processing. The bottom in this case is the data entering the information processing system through perception. The top refers to the influence of pre-existing knowledge in the system. Supported by greater resources at the top, experts rely to a greater degree than novices on top-down processing (Dror, 2011). This supports greater efficiency in the interpretation of bottom-up data. In other words, the expert takes advantage of their biases to lighten the cognitive load of the task in hand. *Bias* is neutral here as it is simply the interpretation of novel data based on existing knowledge structures. An experienced detective may improve their average speed of solving cases by forming inferences about the demographics of a perpetrator from offense clues. However this bias can take on its negative connotation when the detective incorrectly

interprets evidence due to the fact that she had a particular suspect in mind¹. I have already discussed how sex offenders may have these entrenched knowledge systems that bias or distort the data they perceive through top-down processing. These cognitive distortions may be adaptive for the expert sexual offender in service of committing their offense. For example interpreting struggle and distress from the victim in the context of a belief that women are inherently seductive and will often say no to sex when they secretly want it (Polaschek & Ward, 2002) may allow the offender to more readily overcome dissonance surrounding the offense. As another example, the offender may hold a belief that the world is an inherently dangerous place (Polaschek & Gannon, 2004), which may encourage them to be extra vigilant of their surroundings and therefore only offend when the opportunity to rape involves the least potential for bystanders to intervene. However, as expertise encourages automaticity and reliance on top-down processing, there can be a rigid style of information processing which can introduce errors, such as in the case of the biased detective. Holding general beliefs about how women do and should behave, may lead a rapist not to expect individual differences (Ullman & Knight, 1993) in female responses to sexual aggression. Again, this may lead to mistakes that lead to capture, even in rapists with expert-like planning and offense scripts etc.

5. Clinical implications

Ward (1999) makes some interesting observations about the implications of an expertise perspective on sexual offending. Perhaps most obviously, he suggests that experienced sex offenders may be more difficult to treat due to their more extensive knowledge structures. Having an integrated cognitive network of offense-related materials, scripts, schematic associations, and exemplars is likely to lead to intuitive decision making,

¹ Some readers will have just experienced a simple version of this type of phenomenon as their own biases may have led them to expect that my experienced detective would be male.

and confidence in those decisions due to the cognitive ease with which they were arrived at (Kahneman, 2011). Ward argues that changing these offense-supportive belief systems may prove a challenge to the clinician even if the offender is motivated to do so. He also notes that the interconnectedness of the knowledge structures may also automatically prime deviant sexual desires and fantasies in response to offense-related information (see also Ó Ciardha, 2011). To an extent the implications of this conclusion for treatment providers is no different to conclusions they might draw from the literature on cognitive distortions more broadly. Namely, that cognitive distortions should be a focus for treatment when they represent true knowledge structures that play an etiological or maintaining role in offending, not when they serve as an attempt to minimize the offender's culpability (Ó Ciardha, Gannon, & Ward, 2014). Consideration of expertise allows the clinician another tool with which they can consider how entrenched the cognitive distortions are.

Ward (1999) makes additional suggestions that are a little less obvious. First, he suggests that some sexual offenders will achieve a sense of mastery from their crimes, and that relinquishing this mastery may prove challenging them. The clinician may consider ways in which the offender may achieve similar reinforcement in a prosocial manner. Identifying the importance of mastery in work or other activities for some individuals is compatible with the Good Lives Model for offender rehabilitation (Willis, Yates, Gannon, & Ward, 2013). Second, Ward stresses that it is important to treat men early in their offending careers, given that knowledge structures will become more entrenched over time. Ward explicitly mentions this point in relation to developing interventions for adolescent offenders. However, it would also appear applicable to current practice in prison settings, where those nearing release are often prioritized for treatment (Ministry of Justice, 2013). In a system with limited resources, it makes sense to prioritize for treatment those posing the highest risk of harm to the community, and clearly those facing imminent release pose a more immediate risk. However,

when a sexual offender is faced with a considerable custodial sentence, the expertise perspective would suggest that his knowledge systems may become less malleable over the course of incarceration. Therefore, if the evidence for changes in knowledge systems over the offending career (or indeed over periods of untreated incarceration) is established by future research, policy makers should consider whether intervention earlier in their sentence might significantly reduce risk of recidivism. Finally Ward also suggests that examining the apparent sophistication, planning, and adaptability of in the crime behavior of an offender, along with their offense history may aid case formulation for the clinician even where the offender is denying or minimizing the offense. Monitoring these indicators of expertise may, according to Ward, allow more accurate risk assessment. In addition to their obvious treatment implications, the above provide several fertile strands of potential future research. However, in the absence of the evidence base that this future research may provide, incorporating any treatment implications from the expertise perspective that is incompatible with current best practice cannot be recommended. An additional strand of future research with clear treatment implications is to examine how expertise in sexual offending and desistence interact (see Laws & Ward, 2011). For example, are those individuals who never achieve expert level the most likely to desist without intervention?

6. Conclusions

Despite being a decade and a half old, the research literature on expertise and rape remains in its infancy. On balance the literature shows very little evidence for domain specific expertise in experienced sexual offenders against adults. However, this conclusion is of limited value as there have been very few explicit attempts to examine whether offenders demonstrably fall on a novice – expert continuum either in terms of their offending behavior or the organization of their knowledge systems and cognitive processing. Bourke et al (2012) developed a descriptive model of expertise related competency in child sex offenders based

on qualitative data but similar research is sadly lacking when it comes to sexual aggression towards adults. As a result, expertise in rape remains a fertile topic for future research. It should not be problematic to include variables assessing expertise in future research even if this is not a primary aim of those projects. Ideally those projects will also include samples that incorporated the entire range of sexual aggression towards adults, including rape of intimate partners, rape of male victims etc. The equivocal literature on cognitive distortions, implicit theories etc. would particularly benefit from consideration of the duration of the offending career. In particular, researchers should examine whether the degree to which offense-supportive beliefs become entrenched vary as a function of the development of domain specific expertise. Accepting the lack of empirical support, there is in my opinion no clear reason not to assume that individuals may be more or less expert at sexual assault, similarly to any other repeated behavior. As a result, it follows that the behavioral and cognitive consequences of increasing expertise should map onto what is seen in other domains of expertise. It remains to be seen if the research community adopts the expertise perspective in the examination of rapists' offense behavior and cognition.

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