

Editorial

Stalking: the state of the science

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When Louisa May Alcott penned *A Long Fatal Love Chase* – the first stalking novel ever written – in 1866, perhaps her imagination was piqued by the thought that the study of stalking would become a scientific endeavour filled with the passion of pursuit 150 years later. It has become just that. Since the behaviour of stalking was criminalized in California in 1990, a brief interlude of 15 years has seen the publication of 175 studies of stalkers and their victims worthy of meta-analysis (Spitzberg, 2006), and the world's scientific literature on stalking is bolstered by dozens of new studies each year.

What have we learned, and where should we go from here? Although definitions of the crime of stalking vary, there seems to be a legal consensus that three elements are necessary: an intentional activity, a credible threat and the induction of fear in the victim. Various definitions of these elements exist across state and federal jurisdictions in North America, Australia, New Zealand and Europe, and it seems apparent that there must be a *pattern* of unwanted pursuit, the behaviour must pose an implicit or explicit threat to the safety of the victim, and the victim must experience fear as a result of the intentional behaviour of the pursuer (Dennison and Thomson, 2005). Although the constitutionality of stalking laws continues to be argued in courts of appeal, particularly in the United States, it appears that this very old behaviour, which is now a new crime, is here to stay (Meloy, 1999).

To those of us with an intense interest in the motivation and meaning of behaviour, stalking is a remarkably intriguing activity whose interpersonal and intrapsychic dynamics easily subsume the legal debates: why, on earth, would someone want to pursue another who shows absolutely no interest in his or her attentions? The answer to this fundamental question, and other related queries, helps us to understand the state of the science and to propose directions for future research.

Stalking is a behavioural measure of attachment pathology

First advanced in an article prior to the criminalization of stalking (Meloy, 1989), the paradox of stalking is best understood as a behavioural expression of attachment pathology: both insecure, and often more specifically, preoccupied (Bartholomew, 1990). Numerous studies have empirically tested and confirmed this hypothesis, from the early work of Dutton *et al.* (1994) to the most recent work by McCutcheon *et al.* (2006). The former found that attachment styles were related to jealousy, following, surveillance and separation behaviours while the latter reported that college students with insecure attachments as children were more likely to condone behaviours indicative of celebrity stalking. Most salient to the attachment issue, and a finding that needs further validation, is the discovery by Kienlen *et al.* (1997) in a small sample of incarcerated stalkers that the majority had lost a primary caretaker in childhood *and* had a significant personal loss in the seven months preceding the onset of stalking. These two psychosocial events suggest the predispositional and precipitating currents of attachment disruptions on subsequent stalking behaviour.

Stalking is a widespread social and public health problem

Large-scale representative studies of stalking across three continents indicate that 2–13% of males and 8–32% of females will be victimized by stalking at some point in their adult lives (Spitzberg, 2006). These figures encompass clinical/forensic samples, general population samples and college samples. Females are more likely to be targeted and in half the cases of stalking the perpetrator will be a prior sexual intimate of the victim. The average duration of stalking is almost two years but the modal duration is one month (Mohandie *et al.*, 2006). Most stalkers have known their victims in some capacity before the stalking begins. As community-based sampling occurs in new countries, the results are largely the same: a random sample from a middle-sized German city recently found a 12% rate of stalking victimization (Dressing *et al.*, 2005). Notwithstanding variations in the definitions of stalking and the sampling methods utilized, the crime of stalking is a large social problem with important public health implications.

Unfortunately, interest in stalking – both legal and clinical/forensic – appears limited to Westernized developed countries. There are no published samples of stalking victimization from other parts of the world, where it is easily overshadowed by much more brutal and savage behaviour toward women, such as ethnic cleansing through rape, family honour killing of rape victims, culturally sanctioned clitoridectomies, or complete physical covering and home captivity of women to eliminate their erotic appeal in certain fundamentalist societies.

The Psychopathology of stalking is endemic and varied

Adult stalkers are typically males in their fourth decade of life with a variety of psychiatric, criminal and drug abuse problems. The majority of stalkers in clinical and forensic settings have both Axis I mental disorders and Axis II personality disorders, demanding a careful and comprehensive evaluation of each case to discern the best approach to treatment and risk management. Psychotic stalkers represent a minority of stalking cases, and they are significantly more prevalent when the object of pursuit is a complete stranger. Although questions have been raised concerning the prevalence of psychopathology among stalkers due to sampling bias, a recent study of 1005 North American stalkers drawn from prosecutorial, law enforcement and corporate security files – not a mental health database – found that half had a psychiatric diagnosis and one out of seven were psychotic at the time of the stalking (Mohandie *et al.*, 2006).

Questions remain, however, concerning psychopathology among college students who engage in 'obsessive relational intrusions' (Cupach and Spitzberg, 2004), a subcriminal form of stalking. One could argue that such behaviour, prominent in late adolescence and young adulthood, is largely a product of beleaguered self-efficacy and rationalizations (Spitzberg, 2006). On the other hand, this is the age when personality disorder is crystallizing and the onset of certain major mental disorders, such as schizophrenia and bipolar disorder, is most frequent; obsessive relational intrusion may be a premorbid sign of further troubles down the road. Clinical testing of this hypothesis has yet to be done.

There may be a neurobiology for stalking

A pristine area of stalking research is the neurobiology underlying the behaviour. Although there is only one theoretical article on the neurobiology of stalking (Meloy and Fisher, 2005), a few fMRI studies of romantic love suggest that heightened activity of subcortical dopaminergic pathways in combination with low activity of serotonin may biologically support the stalker's focused attention, increased energy, dysphoria, following behaviours, obsessiveness and impulsivity toward the victim. Techniques such as fMRI provide a non-invasive functional technology for studying this behaviour in the laboratory, and an exciting frontier of research.

The psychosocial and psychodynamic aspects of stalking – social incompetence, social isolation and loneliness, obsessional cognitions, pathological narcissism and aggression – are also likely to have neurobiological substrates (Meloy, 2006).

Stalkers are frequently violent

One-third of all stalking cases involve physical violence toward the object of pursuit (Spitzberg, 2006). This is a disturbingly high frequency of violence for any clinical or forensic sample but is overshadowed by the remarkable finding that the *majority* of prior sexually intimate stalkers will be physically violent toward their victim in the course of stalking her. This is a robust finding in at least six different studies on three continents (Meloy, 2006; Mohandie *et al.*, 2006), and is probably an impulsive response to the emotional upheaval that accompanies a severe attachment disruption where actual intimacy had previously existed (Bowlby, 1979). Stalking has also been closely linked to behaviours *during* an intimate relationship, including domestic violence, jealousy and domination of the partner.

Prediction of violence in stalking cases is the current quest for the Holy Grail. Over the past decade a number of variables have emerged that are significantly related to violent behaviour among stalkers, some with more strength than others. They include the presence of threats, substance abuse, a prior intimate relationship with the victim (the most powerful), personality disorder, a history of violent behaviour and the absence of a psychotic disorder (Rosenfeld, 2004). Others have found striking differences in such variables when serious violence by stalkers is segregated from all violence by stalkers (James and Farnham, 2003).

The most advanced work in prediction of violence among stalkers is a regression tree approach developed by Rosenfeld and Lewis (2005). Such approaches present actuarial data in a clinically user-friendly fashion by generating subgroups that have different probability estimates of violence through the *interaction effects* of the predictor variables (Rosenfeld and Lewis, 2005). Their most useful model contained nine variables: age under 30 years, education less than high school, threatened victim, prior intimate relationship, revenge motivation, psychotic disorder, personality disorder, substance abuse history, and criminal history. The directionality of some of these variables depended on their interaction effect with other variables but all three models tested generated Areas Under the Curve (AUC) between 0.79 and 0.85 in ROC analyses. These are statistically exciting data and, furthermore, the analytic technique paves the way for the creation of a relatively simple software programme for clinicians.

Victim impact is substantial but often underestimated

The crime of stalking may be trivialized by both police and prosecutorial agencies, most crassly captured in the words of a prosecutor in the US, 'no blood, no crime'. Such ignorant views tend to reinforce the hesitancy of stalking victims to report to the police, which occurs in only half the cases, but they belie the

fact that more than one-third of stalking victims will incur a psychiatric diagnosis that will persist long after the stalking has ceased (Purcell *et al.*, 2005a). This is not the end of it. Many victims will have their personal and professional lives severely disrupted. In one study, almost one-third of psychologists who had been stalked considered leaving their profession (Purcell *et al.*, 2005b). A measure of the costs of stalking in the US estimated the toll to be US\$342 million a year (Centers for Disease Control and Prevention, 2003).

Stalkers of public figures are often mentally ill and less violent

A distinctive subset of stalkers pursues public figures, whether they be politicians, celebrities, royalty, actors, athletes, judicial officials or high-profile corporate leaders. Research in this area is limited, but growing (Meloy *et al.*, 2004, in press). Among the compelling findings in the few completed studies is the predominance of severe mental illness among those who fixate upon and pursue public figures (Fixated Research Group, 2006; Meloy *et al.*, 2004), and the very low frequency of violence among these individuals (Mohandie *et al.*, 2006). The latter finding, however, may be largely a product of effective security surrounding the object of pursuit. Directly communicated threats in this subsample of stalkers often have no relationship or are inversely related to risk of attack, although threats should always be taken seriously in all cases, regardless of their form, content, or the way in which they are communicated.

Risk management is both effective and complex

The risk management of stalking cases has grown into a substantial literature, much of the material being available electronically over the Internet. The entry of the word 'antistalking' in a widely used search engine yielded 17,700 hits. Although advice is easily offered and rarely utilized, four recommendations from this author's experience are, in order: trust your instincts of fear; seek help from professionals; save all evidence, no matter how repugnant; and try very hard to not reinforce the pursuer's behaviour by initiating any contact whatsoever with him or her. A well-known Hollywood film actress hired a private psychiatrist and secured a court order to have him evaluate the man in custody who had been arrested for stalking her. She ostensibly wanted to know if he posed a threat. The stalker was delighted! Very good question. Very bad solution.

Directions for the future

Some of these findings and opinions will, I hope, stimulate researchers in the field to refine and explore our knowledge of stalking. The most difficult work, of

course, lies ahead: What is the longitudinal course of stalking behaviour? What are the connections between psychopathological diagnoses and attachment styles among stalkers? What is the nature of cyberstalking (Lucks, 2004)? How do we investigate the psychodynamics of stalking empirically? Is there a neurobiology of stalking that may be mitigated through the use of existing psychopharmacological interventions? Why are most stalkers in their fourth decade of life, whereas most violent crime occurs in males a decade younger? Is there sufficient empirical evidence to mandate psychiatric treatment for all those convicted of stalking? The questions are many, the energy is evident in a number of research groups across several continents, and the progress of science is inevitable.

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