Commentary on Logical Operations in Theory-Building Case Studies

Forensic Evaluations Advance Scientific Theory: Assessing Causation of Harm

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ABSTRACT

As a basis for psychological theory construction, Stiles (2009) proposes connecting theory and practice in single, qualitative case studies as an alternative to group-experimental approaches. In this paper, we apply Stiles' model to determine the causation of psychological injuries within individual cases in forensic settings—in other words, to develop a theory of causation within individual forensic cases. The specific example considered is that of a sexual harassment complainant. This is a case-based context in which the dimensions of the case study are framed by the referral questions of the retaining counsel and by the law in that jurisdiction. Forensic evaluators in sexual harassment and other workplace discrimination cases may use a three-stage model to assess the status of the sexual harassment plaintiff before the alleged harassment, during those events, and following harassment incidents. By examining the complainant's status at these three times, the forensic examiner can more accurately develop a theory relevant to a particular complainant for determining legal causation and for distinguishing between symptoms or problems compensable by the defendant and those which are a result of other life events. Using Stile's formulation, this model also demonstrates the use of deductive, inductive and abductive logic in the evaluation process to more effectively build and test theories relevant to the forensic issues.

Key words: abductive reasoning, causation of harm, compensatory damages, deductive reasoning; independent psychological examination; inductive reasoning; psychological injury; forensic evaluation; scientific theory; sexual harassment; workplace discrimination

INTRODUCTION

The connection between psychological theory and practice has long been emphasized, most notably by leading psychological scholar Kurt Lewin, to whom the following statement is attributed: "There is nothing so practical as a good theory" (Marrow, 1977). This relationship has been elaborated more recently by clinical practitioners (Stiles, 2009) and by program evaluators (Pawson & Tilley, 1997; 2004) seeking to implement evidence-based practices and

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policies in conformity with the scientist-practitioner model. Commentators have noted that contextualized theory can emerge from observations that are grounded in experience (Bishop, 2007). These exchanges underscore the value of alternatives to experimental approaches to theory development and complexity evaluation, and the shift in scientific logic and thinking that adheres/inheres in alternative approaches to theory generation. Traditional, exclusively experimental models based on cause-and-effect reasoning have been criticized as impractical and destined for obsolescence in program evaluations: "The notions of causality and control must be replaced by notions of complexity and adaptation to complexity. Logic and reasoning should be applied to learning and to the development of alternative, more reflexive, styles of policymaking" (Hospes, 2008, p.26).

The scientific value of pragmatic case studies to develop psychological theories is a topic that has gained increasing attention (Fishman, 2007). Previously, psychologists have pointed out that well-documented, qualitative case studies go beyond anecdotal information and can contribute to the generation, modification or elaboration of scientific, quantitatively tested theories (Fishman, 1999; Stiles, 2003, reprinted as Appendix A in Stiles, 2009). However, descriptions of the precise mechanisms for this contribution have remained more elusive, to some degree no doubt because the content of case studies is intrinsically connected with substantive case facts and issues particular to a specific psychological domain. Because forensic applications, such as evaluations performed by psychologists for courts, focus extensively on the meaning of psychological contributions within a single case in controversy, the forensic arena is particularly well-suited to examine examples of this interaction.

CASE-BASED THEORY BUILDING IN FORENSIC PSYCHOLOGY

This article offers a description of the way in which science, theory and case facts interact in a forensic psychological domain. Whereas Stiles provided the example of the assimilation model in the context of a therapeutic treatment setting to illustrate ways in which case studies can build theories, in this article, we describe this interaction in the context of a forensic evaluation. In essence, a forensic evaluation is a case study conducted in a legal setting. For example, in criminal legal setting, a psychologist may be asked to evaluate an offender to assess his or her fitness for trial, or following a custodial sentence, to make a recommendation upon release from prison. In a civil legal context, psychologists often evaluate a complainant who claims compensation for non-pecuniary injuries allegedly caused by a defendant.

In this article we use the example of a complainant in a civil workplace discrimination case who claims psychological injuries as a consequence of exposure to employment discrimination in the form of workplace sexual harassment. In our model, hypothesis testing is applied to explore theories of the complainant versus the defendant regarding causes of the alleged injuries, plus theories developed by the psychologist based on his or her knowledge and clinical experience that seem relevant, given the facts of the case.

Stiles argued that theories are the products of science and that case studies allow their testing in ways that are not possible using traditional statistical tests of significance. Whereas statistical tests match a theory against data, case studies allow examination of the fit between a

theoretical model and case observations. The theory matching process using a statistical test is often reduced to a binary inquiry—is the result statistically different from the null observation. This does not foster expansion, extension or modification of a theory. In a forensic evaluation, based on a set of observed outcomes or "facts," the evaluator selects the explanation for those outcomes which provides the best fit or the most plausible account for the data in that case. An assessment of goodness of fit allowable in case studies offers the opportunity to expand, extend or modify a theory based on the case observations.

One criterion emphasized by Stiles is that there must be a known error rate to apply to the case study. In forensic evaluations provided in the United States, because rules of evidence require that any expert opinion must be based on reliable scientific foundations that meet the *Daubert-Kumho* standards (*Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 1993; Faigman & Monahan, 2005; *Kumho Tire Co. v. Carmichael*, 1999), achievement of this criterion is facilitated. In fact, *Daubert* mandates that expert option must meet four quality control measures of reliability, i.e., falsifiability, a known error rate, peer-review, and use of a generally accepted methodology. Thus, the forensic practitioner must bring a thorough familiarity with the relevant research literature on consequences of sexual harassment to the task. To be able to theorize appropriately about causation of harm, you need to know quite a lot about the potential outcomes of exposure to workplace discrimination and harassment. The *Daubert-Kumho* standard, and the systematic approach we outline, allows practitioners who are familiar with the literature to integrate theories and case facts to reach an informed and evidence-based opinion on causation of harm. This approach builds a bridge between research and experience with cases and ultimately, can assist in developing a relevant research agenda (O'Connor, 2007).

FORENSIC CASE STUDIES OF CLAIMS OF SEXUAL HARRASMENT

Overview of Our Approach in Terms of Stiles' Model

Below we describe our approach for evaluating an individual complainant's claims of sexual harassment in the context of the Stiles model of case-based theory development. As an overview, we begin by bringing to our evaluation relevant knowledge from previous group research in the psychological literature; previous forensic case studies in the forensic psychology and legal literatures; and previous experience with our own forensic cases. We then apply *deduction* to this knowledge to develop theoretical hypotheses about the validity of the complainant's claims. At the same time, we collect wide-ranging qualitative and quantitative data from the complainant and then apply *induction* to these data to develop theoretical hypotheses, also about the complainant's claims. Finally, when the data associated with the deductive and inductive hypotheses are inconsistent, we employ *abduction* to create a fit between them.

The Social Psychological Context and Framework for Evaluating Claims

Before commencing a psychological evaluation of occupational injuries following workplace harassment, some appreciation of the scope of workplace harassment is helpful (Foote

& Goodman-Delahunty, 2005). Over the past thirty years, researchers have determined that sexual harassment is a common workplace event. For example, in two large scales studies of U.S. Department of Defense employees (Bastian, Lancaster & Reyst, 1996), as many as 52% of women and 13% of men were subjected to sexual remarks at work. Deliberate touching was reported by over one-third of women and about 6% to 9% of men. About 5% of both men and women were survivors of actual or completed rape. These data must be interpreted in light of measures used and cultural differences (Krieger & Sydney, 1997 Zimbroff, 2007). For example, the latest national Australian workplace survey revealed that 22% of women and 5% of men reported experiences of sexual harassment, but a further 22% who did not report harassment reported experiencing behaviors that may amount to sexual harassment under the *Sex Discrimination Act 1984* (Australian Human Rights Commission, 2008).

For the forensic examiner, the first challenge in evaluating sexual harassment complainants is the vast array of potential emotional outcomes that can ensue from relatively equivalent circumstances (Lenhart, 2004; Richman et al., 1999). Although psychological harm is not an inevitable consequence of sexual harassment (Vaux, 1993), some less severe sequelae such as embarrassment, emotional distress and humiliation are quite common. Psychological and somatic reactions to sexual harassment are similar to those in response to sexual assault (O'Connor, 2007). Also, it is clear that symptoms of generalized anxiety and depression are not uncommon (Meyer, 1995; Williams & Williams-Morris, 2000), as are symptoms of Post-Traumatic Stress Disorder (Saunders, Arata, & Kilpatrick, 1990). More serious reactions are often dependent upon the nature of the harassment, the role of the harasser and vulnerabilities of the harassment target (Foote & Goodman-Delahunty, 2005). In most cases, the severity of reaction is directly related to the severity of the harassment. Duration of the harassment also determines the seriousness of the target's reactions, with more protracted episodes of harassment producing more debilitating outcomes (Dunbar, 2001; Newhill, 1990; Uomoto, 1986). When harassment is more frequent, negative psychological outcomes are more serious (Fitzgerald et al., 1997), although even low-frequency sexual harassment can produce measurable negative consequences (Schneider, et al., 1997).

Whatever the legal context, forensic evaluations resemble case studies because the client evaluated is unique and has a unique personal history and history of employment. The events in the workplace are uniquely experienced, even if others in the same workplace are exposed to the same discriminatory hostile workplace environment, such as sexual harassment perpetrated by co-worker or supervisor in the form of gender-based negative comments, offensive workplace sexual material or differential gender-based treatment.

The personal history of the complainant is relevant because of the role that past history, level of coping skills, ongoing psychopathology or stress reactions and other individual characteristics that can modify the complainant's reaction to one or more experiences of harassment. Because of this inherent complexity, forensic evaluators must use a step-by-step method of analysis as a basis for developing an understanding of the interaction of the workplace, the harasser(s) and the harassment target.

The Legal Context and Framework

One notable difference between a case study in a therapeutic setting and forensic evaluation is that the theory testing in a therapeutic setting can be more open-ended. In a legal case, the referral question from the retaining lawyer, or a court, in the case of a court-appointed expert, will constrain the questions that can be addressed. To proceed to examine the referral question by applying psychological insights and tools the psychologist must adopt theoretical positions or compare more than one theoretical position. These theoretical premises will structure the inquiry and direct the nature and scope of the evaluation. The theories will also be used by the psychologist to combine the information gathered.

The referral question is typically related to a matter in legal controversy. For example, the defense in a sexual harassment case may centre on allegations that a complainant welcomed the conduct and engaged in a consensual relationship with the alleged harasser, and that for this reason, none of the injuries asserted by the complainant were caused by harassment. Counsel for the defense may ask the psychologist to determine whether the complainant "welcomed" the sexual conduct in issue and to determine whether any of the alleged injuries were caused by other factors in the complainant's life, such as distress over the break-up of the relationship with the harasser, and resentment at his new girlfriend. Even in cases in which the complainant's evaluation is requested by the complainant's counsel, exploration of alternative causes for evident emotional distress is necessary to produce a balanced and comprehensive evaluation (see Foote & Goodman-Delahunty, 2005; Gilbert 2007).

The legal framework within which the evaluation must be conducted is to offer an opinion as to whether the unlawful conduct of the employer was a substantial factor contributing to distress that the complainant would not otherwise have suffered (Foote & Goodman-Delahunty, 2005, p. 61). Two issues arise for the evaluator: (a) how to measure or quantify the severity of the distress exhibited by the complainant; and (b) how to determine whether the distress was caused by the harassment. In almost every evaluation of damages in sexual harassment cases, the psychologist must determine if the defendant's actions proximally caused the complainant's injuries. That is, understanding that complainants have lives before during and after the alleged harassment, the inquiry must explore events or processes occurring in those time frames apart from the alleged harassment which could reasonably account for the complainant's symptoms. The psychologist must examine whether any symptoms or problems present in the complainant are related to the alleged harassment or hostile workplace environment. In particular, the psychologist must distinguish distress caused by harassment from emotional or psychological difficulties that preceded the harassment; that were the result of retaliation or victimization at work; and that were caused by the litigation itself.

The behaviors to examine to support or refute a legal contention underlying a referral question are often suggested by the law or previous cases. For example the parameters of recoverable damages in a civil antidiscrimination case are fairly well set elements. Thus, these comprise a framework of issues for the psychologist to address in responding to the referral question on the nature and scope of the injuries of the complainant and their causes. Typically recoverable elements are for mental and emotional pain and suffering caused by the negligence or intentional conduct of the harasser and the employer; for the past and future costs of any

medical or psychological treatment; for lost income in the form of past or future lost wages; and for loss of consortium experienced by other family members as a consequence of the complainant's distress.

A practical difficulty in assessing sexual harassment discrimination claims is that in many of the emotional reactions, it is rare that symptoms and problems exhibited by the complainants are uniquely related to sexual harassment experiences. To assist psychologists in reaching a proximate cause determination more reliably, Foote and Goodman-Delahunty (2005) proposed a three-stage model of assessment that connects theory and research to clinical practice and the law. This model relies on inductive, deductive and abductive reasoning to determine causation of harm. It is a best-practice model to prepare ethically sound, reliable reports.

A Three-Stage Model to Evaluate Causation of Harm

The purpose of the three-stage model is to facilitate determinations of proximate cause. In a legal case, the complainant bears the burden to demonstrate via competent legal evidence that an actual injury was sustained, the nature and the extent of that injury, that the injuries were proximately caused by an harasser, and that the complainant took all reasonable steps and measures to mitigate the injuries and losses sustained. As noted above, a striking feature of sexual harassment cases is that individual responses to instances of harassment display extensive variability. The severity of a complainant's reaction to alleged sexual harassment is governed by a number of features of the conduct and its context. For example, whether the harasser is a coworker or a superior, or an employee with whom the complainant has little day-to-day interaction on a regular basis, can all make a difference (Pryor, 1995; Pryor, LaVite & Stoller, 1993). Next, the nature of the alleged harassing conduct must be considered. Was there a series of verbal comments and jokes, or did it involve physical touching? The context in which the alleged harassment occurred can influence a reaction. For example, harassing behavior that is derogatory that is witnessed by others may be more humiliating. The frequency of the harassment, even if it is low-level, may be important. Similarly, the protracted duration of the alleged harassments may increase the impact on the complainant of low level harassing behaviors. Even low-severity gender hostility can cause severe harm, such as major depression, PTSD, substance abuse, eating disorders, and agoraphobia.

Aside from the details related to the events at issue and the workplace context, the psychologist must explore whether other risk factors make the severity of the harassment more traumatic. We identified four ways that non-harassing events can influence the assessment of causation of harm.

First, there may be problems experienced by the complainant that were caused by events unrelated to alleged harassment.

Second, the complainant may have an ongoing problem that pre-existed the harassment that serves as a vulnerability factor, or a risk factor or more harm. For instance, if a complainant who has a history of child sexual abuse, then the impact of the harassing conduct may be more profound and severe.

Third, the presence of an ongoing problem may be exacerbated by exposure to sexual harassment.

Finally, the complainant's social support system may be eroded by the harassment.

The complexity of this list of issues—the nature and severity of the harassment, the context in which it occurred in the workplace, along with four possible extrinsic influences on the way in which the impact of sexual harassment experience may be registered—make it clear that not all can be manipulated and tested within a single study. So how can the forensic practitioner # faced with a case in controversy # arrive at a defensible expert opinion on causation of harm? The three-stage model allows the evaluating psychologist to manage the data collection, analysis and assessment in a systematic fashion.

A key feature of our three-stage model is the requirement that the psychologist examine the three phases of the complainant's life: (a) before the alleged discriminatory events, (b) during the harassment, and (c) since the end of the harassment. The purpose of this inquiry is to determine if there is another viable basis for the observed symptoms aside from sexual harassment. Thus, a very broad-based exploration is critical. To consider whether the outcomes could be caused by something other than sexual harassment, particularly when harassment is present, requires both clinical and legal knowledge. This is a sophisticated aspect of the evaluation.

Stage One: The "Day Before" Analysis

The first step is for the psychologist to reconstruct the status of the complainant at a point in time right before alleged harassment began. This "day before" analysis is focused on assessing the appropriateness of the scale of reactions by the complainant to the alleged harassing events. That is, the examiner is interested in reconstructing the psychological state of the worker on the day before the first event of alleged sexual harassment. First, the presence of common emotional disorders, such as depression and anxiety disorders, should be assessed. Then, the examiner should evaluate for disorders from which the complainant may have been put at risk.

For example, the existence of an ongoing or co-occurring event may serve as a vulnerability factor, which would predicate reactions to alleged harassing events. This is the traditional "eggshell skull" rule, which has been reflected in the American legal dictum that "the

tortfeasor takes the complainant as he finds him." Suppose that in the course of a review of her childhood history the client reports childhood sexual abuse at the age of nine. By the process of

¹ More specifically, in the American legal context, the "eggshell skull" rule holds an individual liable for all consequences resulting from his or her activities leading to an injury to another person, even if the victim suffers an unusually high level of damage (e.g., due to a pre-existing vulnerability or medical condition). The term implies that if a person had a skull as delicate as the shell of an egg, and a tortfeasor or assailant who did not know of that condition were to hit that person on the head, causing the skull unexpectedly to break, the responsible party would be held liable for all damages resulting from the wrongful contact, even though they were not foreseeable.

deductive reasoning, the psychologist might hypothesize that the client experienced emotional reactions to the experience of childhood sexual abuse. By a process of inductive reasoning, the psychologist makes inquiries to determine whether the client manifested reactions commonly observed in child abuse survivors.

For example, a complainant who had experienced severe sexual abuse as a child may be prone to experiencing a number of events with more profound reactions. Previously, we described a number of common sequellae of child sexual abuse (Foote & Goodman-Delahunty, 2005). These include poorer adjustment, increased risk of depression, suicidal ideation and attempts, and substance abuse problems. Anxiety disorders, particularly post-traumatic stress disorder (PTSD), are common, as are personality disorders, particularly "borderline" syndromes.

Second, a symptom or life problem may be caused by events unrelated to the alleged harassment, and may be mistaken for injuries caused by the on-the-job events. For example, a person with pre-existing chronic depression may show symptoms of depression following the alleged harassment. If the depression is of a recurring episodic nature, its appearance following the alleged civil rights violation may have nothing to do with those events.

Suppose the psychologist learns that the complainant has a pre-existing agoraphobic disorder. In this case, sexual harassment may cause panic attacks to be triggered by work-related stimuli. This is an example of an issue that was already occupying the emotional attention of the complainant that may become exacerbated by the alleged sexual harassment.

If a complainant reports she became suicidal, the assessor can apply a process of abductive reasoning to refine and elaborate theories of the client's case as it develops. This new observation a requires the psychologist to modify the theory, and possibly take into account the eggshell-skull nature of a previously injured damages-complainant. The psychologist would need to examine the basis for the suicidal behavior to assess whether this was (a) related to a history of depressive illness in the complainant's family; (b) related to a failed relationship in her teenage years; (c) related to a pattern of developing impulsive behavior or self-destructive behavior commonly observed in borderline syndromes; and/or (d) related to an isolated event connected with a sudden combination of stressors, such as loss of an important relationship, school failure, and/or disruption of a parental relationship. =

Research has long recognized the role of social support in mitigating the impact of stressors (Piltch, et al., 1994; Schwarzer, Hahn & Fuchs, 1994). Some researchers contend that in the final outcome for survivors of sexual trauma and child physical abuse, the impact of social support accounts for more of the variance than any other variable (e.g., Merrill et al., 2001). It is our observation that non-harassment-related events which adversely (or positively) affect the social support system of the complainant can result in significant changes in the outcome of sexual harassment damages. An example is the departure for college of the only child of a single mother in the midst of the mother's alleged experience of a hostile work environment.

To answer the questions by reliance on abductive reasoning, the psychologist must explore a number of different aspects of the complainant's life—e.g., relationships, feelings, and symptoms—guided by theories as to what events would lead to certain reactions. The

information gathering should be sufficiently open-ended and broad so that data to assess whether the theory espoused by the party who presented the referral question should be refuted based on other relevant and available evidence. For example, if the evidence reveals that the complainant did not welcome the harassing conduct, the defense of denial of unlawful conduct might be abrogated. However this alone does not resolve the issues of causation of harm. It may be that the ex-boyfriend engaged in harassing behavior, but that behavior did not cause the harm experienced by the complainant. Abductive reasoning processes will be used by the psychologist to link or connect the information gathered in the course of the evaluation to support or rebut several competing theories about the causes of the complainant's injuries, and to determine which is the best fit for the available case facts. The process of assessing the best fit for the data is that outlined by Stiles (2009).

In this analysis, the examiner should take into account the tendency on the part of complainants seeking emotional distress damages to remember their pre-harassment adjustment as being better than it was, and, in fact, better than the average person's day-to-day-adjustment (Williams, Lees-Haley & Djanogly, 1999). In a practical sense, the examiner may begin with the complainant's statements, and then gather significant collateral information. This should include prior medical, mental health and work records. Interviews with family members, friends, clergy and neighbors can determine the extent to which the history of abuse may have been reflected in restricted relationships, non-work activities or medical symptoms. Prior treatment for depression, suicidality or stress-related illnesses may be tip-offs for the ongoing impact of childhood trauma. A particular focus of inquiry should be prior on-the-job problems in which the worker may have had difficulty in interactions with employees because of suspiciousness or interpersonal anxiety.

Any emotional problems or disorders that are present "the day before" can play a number of roles once sexual harassment begins. For example, the medical, vocational and mental health records of the complainant should be examined to see if these may uncover unexpected and new facts. Abductive reasoning will guide the forensic evaluator to look for a basis or rationale for the observed symptoms, problems or reactions encountered in the history.

Overall, a "day before" analysis should assist the evaluating psychologist to determine whether there is any prior trauma history or pre-existing mental disorders, and if so, what role these may have played in producing symptoms following the harassment allegations. Appreciation of the appropriateness of the scale of reactions to specific traumatic events is an important part of the examiner's skill set in these evaluations, because the extent of the emotional reactions to traumatic events is generally correlated with the severity and duration of the events themselves. The inquiry should explore whether the complainant's reported emotional reactions at the time of the alleged harassment are grossly out of scale to the harasser's behavior. An alternative theory to examine is whether pre-harassment events led to exacerbated reactions in the complainant.

Stage Two: Events Which Occur at About the Same Time as the Alleged Harassment

Based on our previous forensic case experience, the forensic case literature, and the group-research psychological literature, we have identified a number of sources of stressors

which are concurrent to those related to sexual harassment. First, the family life of the worker may generate stressors. A change in financial status, a changed residence, and/or increased demands for care-taking for a child or parent may generate ongoing anxiety and worry that should be addressed in the assessment. Likewise, more dramatic events, like ongoing domestic violence or severe marital discord, can give rise to depression, anxiety and anger that may find expression in the context of the office.

Second, the worker may suffer from health problems independent of the work situation. The development of diabetes or other chronic illnesses may cause significant life stresses (Golden et al., 2008). Other chronic conditions, particularly chronic pain disorders (Demmelmaier, Lindberg, Asenlof & Denison, 2008), may significantly alter the range of leisure activities available to the worker. Some health changes, of course, may be related to the alleged sexual harassment. As noted previously (Foote & Goodman-Delahunty, 2005), health consequences are common in cases of long term sexual harassment.

Third, on-the-job stressors unrelated to the alleged harassment may also play a role. A change in work assignment, even a promotion, may be stressful. The take-over of the worker's employer by another company often shifts job roles, as well as producing changes in the corporate culture within which the alleged harassment takes place. Changes in supervisors or coworkers may produce conflicts that did not exist in the prior work group.

In our experience in litigated cases, many allegations of sexual harassment occur in the midst of these kinds of on-the-job stressors. This may occur because in the context of organizational or role changes, the harasser may feel more liberty to engage in conduct which would not otherwise guarantee sanction. It may also occur because the increase in on-the-job stress may make a formerly tolerated hostile work environment unbearable. In other cases, the on-the-job stressors, especially those involving a loss of status or a favored work role, may cause the worker to attribute to sexual harassment particular feelings and reactions which are instead a result of non-actionable events.

Stage Three: Post-Alleged Harassment Events

In evaluating the impact of the alleged harassment in light of post-harassment events, the inquiry begins with judgments concerning the expected reactions of the plaintiff as if the allegations are true. As discussed earlier, emotional reactions to harassment are generally related to the severity of the alleged harassment as modified by individual factors of susceptibility. However, life goes on even after the interval in which there are allegations of sexual harassment. The worker may experience familial or financial losses unrelated to the alleged harassment. The worker may be laid off or fired for reasons which have nothing to do with the allegations of a hostile work environment. These sources of stress should be investigated.

Also, responses to the experience of sexual harassment have their own consequences. If the worker decides to quit because no reasonable person could be expected to endure the work environment, and engages in what the worker considers a "constructive discharge," leaving the job triggers a number of events, no matter why the worker leaves. Changes in income, daily schedule, contact with friends and co-workers, and even family status may occur because of job loss or job changes. These may generate their unique emotional reactions. In cases in which the employer is held liable for the "constructive discharge," these negative emotional reactions may be tallied as damages.

In addition, as we discussed previously (Foote & Goodman-Delahunty, 2005), retaliation and reprisal may be part of the package for a worker who complains about sexual harassment and often constitute rational reasons why targets of harassment do not report these discriminatory experiences (Gutek & Koss, 1993; Loy & Stewart, 1984; Palmerlee, Near & Jensen, 1982). However, actions which constitute retaliation and reprisal must be differentiated from other consequences of making sexual harassment allegations. Whether valid or invalid, complaints of sexual harassment often rip the social fabric of a workplace or make a formerly pleasant job toxic to the harassed worker.

In many cases, the allegations are against a supervisor who may very well retain power after the allegations. This is especially the case in litigated cases, because those are more likely to be "he said she said" scenarios in which the alleged harasser utterly denies the allegations. In these cases, news of allegations against the supervisor is likely to generate several reactions. First, a number of workers will believe the supervisor and view the complainant as a liar and trouble-maker. Second, the supervisor may be harassing other workers, and they may be distancing themselves from the complainant as a way of avoiding the fray. Third, some coworkers may have adapted to the hostile work environment (see McCabe & Hardman, 2005) and learned to take the vicissitudes of a sexually charged workplace in stride. The complaining complainant may be "rocking the boat" for these adapted workers.

In cases in which the supervisor was transferred or fired as a result of the harassment allegations, the post-allegation scenario may be just as grim. Those who liked and admired the deposed leader may resent the complainant for changing their world, and, in the process, giving them a supervisor who may change the workplace. For others, the worker may have gained organizational power as a result of "taking out" the supervisor. This change in status, even if not exercised by the complainant, may generate envy, fear, or resentment.

In cases in which the supervisor is not a critical player, the complainant may suffer other sorts of changes in interpersonal environment. For example, coworkers may come to view the complainant as "fragile," or "touchy," and may be fearful of doing anything to cause the complainant further distress. This change in interpersonal climate may cause the complaining worker to feel excluded from off-the-work-site social events with co-workers, or may cause the complainant to feel that he or she is being socially isolated. This latter feeling may be well grounded. Following the allegations, even under the most benign circumstances, co-workers

² More specifically, in employment law, "constructive discharge," refers to a situation in which an employee resigns because of the employer's behavior. The employee must prove that the behavior was unlawful—that the employer's actions amounted to a fundamental breach of contract, also known as a repudiatory breach of contract, and that no reasonable person would have continued to work in those circumstances.

may avoid the complainant so as to reduce the degree of stress experienced by one who already complains of too much stress.

Collateral interviews can be helpful to determine the impact of the post-alleged harassment experiences. The timing of life-changes related to depression or anxiety or problems in self-esteem should correlate with the office move rather than the situation with the harasser. Unfortunately, in retrospective evaluations, complainants sometimes come to look at every bad thing that happens to them as being part of one large conspiracy, or as a result of a very powerful harasser.

CONCLUSION

The three-phase model provides a method to examine the sexual harassment complainant through a more complex lens. In this context, the determination of causation is the forensic goal. By looking at the contributions of events which occur before, during and after the alleged harassment, the full impact of true harassment may be assessed. If the allegations of harassment are false, this lens may help explicate what did cause the symptoms of the complainant.

Stile's theory-building model may assist the forensic evaluator in a number of respects. First, the evaluator may view the forensic evaluation as a case-study method for theory testing. In this instance, the theory being tested is either supplied by the questions posed by the referring counsel—e.g., was a boss' behavior in the work environment harassing and if so, did it cause a complainant to suffer a stress reaction—or may be generated in the course of the evaluation by documentary, interview and/or test data.

Second, deductive, inductive and abductive logic are all useful in the evaluation of sexual harassment complainants. Deductive reasoning leads the evaluator to use previous group-based and case-based research as a basis for hypothesis formation and question development. That is, if research has shown that a particular kind of emotional reaction commonly follows specific life events, forensic inquiry may focus on the presence of such a history or emotional reaction. Inductive reasoning allows for sifting through all the accumulated data in the individual case to find evidence of such reactions. Abductive reasoning has also been referred to as "experience-based" reasoning or "a method of reasoning in which one chooses the hypothesis which if true, best explains the relevant evidence" (Peirce, 1955). Thus, abductive reasoning may cause the examiner to spread a broad net in the individual case in gathering clinical information to generate a reliable set of factual information. From the set of facts that appear the most acceptable or plausible, the forensic evaluator can include unanticipated causes of the claimed emotional reactions, and then assess which of these is the most likely. A more expansive inquiry and the testing of potential causes of the injury will increase the comprehensiveness and accuracy of these forensic evaluations.

If the key to advancing science is to apply theory-constructing skills to the everyday world in which we work (Bishop, 2007), then forensic evaluations provide numerous opportunities to enhance science. In forensic evaluation, as compared to experimental psychological theory building, the goals are very practical. Each forensic evaluation is requested by the court or by counsel to provide information so that the trier of fact—the judge and/or

jury—may make more informed decisions about particular cases. The theories to be tested are case-specific. The data gathered to test those theories are within the realm of data commonly relied upon by forensic psychologists. The final product of such theory building and testing is, if all works well, advancement in science and an enhanced legal decision-making process. =

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