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RISK PERCEPTION FOR ACQUAINTANCE SEXUAL AGGRESSION: A SOCIAL-COGNITIVE PERSPECTIVE

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Abstract

Beliefs that people hold about sources of harm and their personal susceptibility to harm have been shown to play an important role in their subsequent self-protection. With respect to acquaintance sexual aggression, women generally report low levels of perceived personal risk and, thus, low level preparedness to prevent or protect against this form of threat. In order to develop effective resistance efforts, a more complete understanding is needed of factors that shape perception of risk and how these factors are likely to influence—both positively and negatively—women's risk reduction and self-protection. This article addresses this need by reviewing recent literature on risk perception and identifying relevant applications of theory and findings to women's perception of risk for acquaintance sexual aggression.

Keywords

Acquaintance sexual aggression; risk perception; social cognition

Distinctions between risk perception at the population and individual levels are easily blurred, which has a bearing on whether risk data are properly interpreted, whether conceptual models are appropriate, and whether intervention and policy strategies are likely to be effective. This article focuses on individual level perception, the special challenges of perceiving personal risk of acquaintance assault within the contexts of heterosexual dating and socializing, and a social cognitive analysis of factors most likely to influence risk perception. Although women are particularly vulnerable to being blamed for assaults on them that occur in heterosexual social contexts, it must be noted that acquaintance sexual aggression is by no means limited to social situations or social relationships, that acquaintance sexual aggression also occurs between same sex individuals, and that actual prevention entails cessation of the perpetration of aggression. Focus on risk perception entails the danger of shifting responsibility of aggressive male perpetrators' behavior onto women victims. Rather than personal inadequacies or failings, the factors discussed here are normative phenomena typical of human perception in general and have been demonstrated to affect health and safety in other domains. Thus, appropriately applied, attention to

negative and positive effects of such factors for risk reduction and self-protection holds the potential for better fortifying women's empowerment in their private lives.

Imagine two situations: One is of a party where people one's age—some of whom are friends and acquaintances—are partying (talking, drinking, laughing, flirting, dancing). Another is of a lone woman walking through an empty parking garage at night. In which situation are most women likely to feel alert to potential threat? To search for and prepare for threat? To question whether they can control the situation? And in which is a woman actually at greater risk?

The beliefs that people hold about sources of harm and their personal susceptibility to harm play an important role in their subsequent self-protection (Weinstein, 1984). Such beliefs are crucial arbiters of what people do and do not anticipate, take note of, interpret, and respond to, as well as how they undertake these threshold steps of self-protection. To be effective, resistance efforts must take into account people's beliefs and the appraisal processes through which we all size up both our own risk and our capacity to control our safety and well-being. In general, women perceive stranger sexual assault to be a personally relevant threat. They take this threat seriously, are fearful of it, and take precautionary and protective steps (Furby, Fischhoff, & Morgan, 1990; Riger, Gordon, & LeBailly, 1982). In this regard, women are reflecting an agentic response to perceived threat; that is, active efforts to reduce exposure to risk and to increase women's capacity to protect themselves.

With respect to threat of sexual aggression by an acquaintance or intimate, the picture is quite different. Women report significantly less recognition of risk of acquaintance or intimate sexual aggression, less fear of it relative to stranger assault, and less preparedness to prevent or protect against this form of threat (Furby et al., 1990; Hickman & Muehlenhard, 1997; Warr, 1985). Part of what makes this worrisome is that women are statistically at far greater risk of sexual assault by a man known to her than by a stranger, and that this risk arises in situations difficult to detect—such as the party scene depicted above (Aizenman & Kelly, 1988). This disjuncture underscores the importance of better understanding factors associated with risk perception and subsequent self-protective actions associated with acquaintance sexual aggression.

Recent research has made progress toward defining the incidence of, and factors that appear associated with, sexual aggression and rape (Kilpatrick et al., 1985; Koss, 1993; Koss, Gidycz, & Wisniewski, 1987; Muehlenhard & Linton, 1987). Research has also identified protective and defensive strategies used by women and consequences that appear associated with varying strategies (Bart & O'Brien, 1985; Levine-MacCombie & Koss, 1990; Ullman & Knight, 1991, 1992). What is now needed is a more complete understanding of factors that shape perception of risk and how these factors are likely to influence—both positively and negatively—women's risk reduction and self-protection. The purpose of this article is to address this need by reviewing recent literature on risk perception and identifying relevant applications of theory and findings to women's perception of risk for sexual victimization. Because the greatest risk for women of sexual victimization is from men known to them and because this involves a more complex risk appraisal task relative to stranger assault, sexual aggression by male acquaintances will be the focus of the present article.

PERSPECTIVE DIFFERENCES: EXPERTS AND EPIDEMIOLOGY VERSUS LAYPERSONS AND “MY LIFE”

Much of the research to date on risk perception has focused on environmental and technological hazards, on distinguishing between “real risk” and perceived risk, on social influences (media, community, friends, family) in shaping perception of risk, and how perceived risk affects subsequent decision-making to avoid a particular hazard. It has become increasingly apparent that riskiness means different things, depending on what perspective or standpoint one holds. A pivotal perspective element is whether one is gauging risk in a relatively abstract or impersonal fashion, such as at the societal or population level, or as an individualized, personal risk (Tyler & Cook, 1984).

Although seemingly obvious, this is an important distinction, one that has a bearing on whether health risk data are properly interpreted, whether conceptual models of causative variables are appropriate, and whether intervention and policy strategies are likely to be effective. Jeffrey (1989), for example, illustrates ways in which individual and population perspectives are easily confused or blurred, increasing the chance of error or misdirected efforts. Slovic (1987) similarly points out that professionals and lay people bring different processes and information to bear in assessing risk, and that, in order to achieve effective communication and risk management strategies, those who promote and regulate health and safety need to understand the ways in which people typically think about and respond to risk.

A population perspective is essentially based on epidemiological data, such as the number of excess cases of disease or negative phenomena in a population that can be attributed to particular risk factors (e.g., the number of deaths from lung cancer associated with smoking). A population perspective influences one to look toward broad environmental conditions that influence overall population behavior, to consider why populations vary in prevalence rates, and to employ change strategies that modify factors that are in the public domain and which involve collective versus individual action (Jeffrey, 1989). In the past two decades, for example, we have seen significant advances in societal recognition of violence against women and subsequent advances in policy and service responses (although further progress is needed and acknowledgment and response to acquaintance sexual aggression has lagged relative to other forms, such as domestic violence). Clearly, a population perspective is essential for societal recognition of specific risks and for mobilizing broad scale structural or environmental change agendas.

However, most people do not think or behave as epidemiologists, at least not within the context of their individual decisions. As individuals look at their own lives, what they conceptualize in risk terms, what they see as constituting unacceptable risk to themselves in particular, and what it would take to mobilize prevention or protection involves very different factors than the more abstract societal level calculations of risk. Individuals focus on risk within the framework of their specific situations, relationships, goals, and history and, within this framework, are highly susceptible to a variety of cognitive and affective forces as they absorb information and generate judgments about what poses threat to them, how large this threat is, and what they can or cannot do about it (cf. Dunwoody & Neuwirth,

1991; Fischhoff, Slovic & Lichtenstein, 1981; Weinstein, 1987). It is one thing, for example, to know that eating a low-calorie, low-fat diet and undertaking regular exercise helps prevent a number of health problems; it is another thing to rigorously sustain such practices in our own lives. Similarly, it is one thing to know that acquaintance assault is “out there,” and it is another to see and relate to one’s friends, coworkers, neighbors, and classmates as a serious source of threat.

Particularly significant in understanding individual risk perception is the impact of human psychology on how individuals construe, experience, and respond to personal risk. Individual risk perception is distinctly different from the largely objective nature of a societal view. Risk perception is embedded in a larger framework within which people perceive, interpret, and act upon their social and physical environment. In examinations of cognitive mediation of coping responses to threat, two sets of cognitive processes have been identified: (a) primary appraisals, in which an event is judged to pose personal threat and the nature of that threat and (b) secondary appraisals, which invoke judgments of one’s capacity to deal with the identified threat (Lazarus & Folkman, 1984; Smith & Lazarus, 1990). Appraisals stem in part from the individual’s current predominant goals and beliefs, and result in interpretations and emotional states that mobilize coping in a manner consistent with those interpretations and emotions (Smith & Lazarus, 1993).

What percentage of women will experience some form of acquaintance sexual aggression over their lifetime? This population-oriented question is a very different question both literally and perceptually from questions that hit much closer to home, such as: What is the likelihood that *I* will experience acquaintance sexual aggression at some point in *my* life? What is the likelihood that I will experience sexual aggression by *this* (familiar) man in *this* situation? What is the likelihood that I could deal effectively with such a situation if it did arise?

The concern in this article is with risk perception “through the eyes” of potential victims. Such an analysis is essential if protection training is to be personally relevant and realistic to those individuals most at risk; including, but not limited to, young women engaged in dating and socializing with men. Thus, in the following sections I review characteristics of individual risk perception that have been found to operate across a range of personal risks and that hold significant implications for perceiving acquaintance sexual aggression risk.

RISK PERCEPTION IN CONTEXT: CHALLENGES TO CONSIDER

If one is to perceive personal risk, there must be signs that differentiate the presence and absence of risk. In the case of acquaintance sexual aggression, addressed here, risk is embedded in circumstances and behaviors that are associated with normal socializing. In contemporary dating and socializing, it is quite common, for example, for a man to spend money on associated costs, for one or both to drink alcohol, for a woman to present herself in ways she believes will be attractive to men, for a man to speak in more ribald or provocative ways than one would in other contexts (e.g., through joking, story telling, flirting), and for both to engage in a range of physical contact that differentiates strangers from acquaintances or social partners. Although a high percentage of women encounter

acquaintance sexual aggression at least once (34–83% reported in Byers, Giles, & Price, 1987; see also Koss et al., 1987), the vast majority of dating and socializing events do not result in sexual aggression (Byers & Lewis, 1988). Thus, the risk of any given man or event posing a serious danger is low, although cumulative personal risk is relatively high. In addition, the situations in which risk is greatest are likely to be those that are unexpected; that is, known people in common settings rather than strangers waiting in dark streets or stairwells (e.g., Muehlenhard & Linton, 1987). Moreover, the persons, behavior, and conditions that constitute risk are very often embedded within the same circumstances within which women are pursuing common goals related to friendship, intimacy, entertainment, group membership, and self-definition. Thus, the mindset, mood, expectancies, and action readiness needed for risk perception, safety orientation, and a priority of self-protection are inconsistent with those needed for (and far more likely to be activated by) situations in which goals such as entertainment, friendship, and intimacy predominate (Norris, Nurius, & Dimeff, 1996; see also Benthin, Slovic, & Severson, 1993 for comment on familiarity effects and past experience influences on risk perception).

Optimistic Bias and Risk Perception

What do we need to understand about the psychological factors that shape risk appraisals? Perhaps one of the most robust findings relative to individual risk perception is that of optimism. This is not a blanket optimism—people do believe that bad things happen. Rather, it is an egocentric optimism that “it just won’t happen to me” that one’s own chances of experiencing health and safety problems are low and certainly lower than their peers’ chances of experiencing the same problems (Larwood, 1978; Perloff & Fetzner, 1986; Weinstein, 1980, 1982, 1984; Zakay, 1983, 1984). Rather than rationally objective perceptions of oneself, the world, and the future, cognitive bias in the form of unrealistic optimism, exaggerated perceptions of personal control, and overly positive self-evaluations are characteristic of normal human thought (Greenwald, 1980; Scheier & Carver, 1985; Taylor & Brown, 1988). This “illusory glow” pervading cognitive processing is manifest through fundamental beliefs, such as “bad things happen to people who deserve them (not to good people like me)” or “I’m capable; I can handle it” and through information processing habits that bias people to behave, search for cues, and interpret events in means consistent with existing beliefs and expectations (e.g., Breckler & Greenwald, 1986; Janoff-Bulman & Timko, 1987; Taylor, 1989; Taylor & Brown, 1994; Weinstein, 1993a). These positive illusions have been found to span age, sex, educational, and occupational groups (Weinstein, 1987), to be resistant to challenge (Weinstein & Klein, 1995; see also Nisbett & Ross, 1980), and to sustain attempts to change behavior and buffer anxiety (Taylor et al., 1992).

These biases present a dilemma. They generally can be thought of as assets to mental health and social functioning. On the one hand, exaggerated self-perceptions, illusions of control, and optimism about the future have been found to be significantly associated with a number of positive factors, such as higher motivation, greater contentment and confidence, more positive self-esteem, and greater use of effective coping strategies (Friedland, Keinan, & Regev, 1992; McKenna, 1993; Scheier & Carver, 1987; Taylor & Brown, 1988). On the other hand, because perceptions of vulnerability are assumed in most theories of preventive behavior to increase the likelihood of preventive or precautionary action (Janz & Becker,

1984; Weinstein, 1993b), optimistic bias would be expected to work against perceptions of vulnerability and thus to slow or impede adoption of precautionary practices and to foster decision-making in directions consistent with optimism and thus inconsistent with fear or risk recognition. Relative to sexual aggression in dating and socializing situations, optimistic bias would be expected to exacerbate women's risk and to limit her precaution adoption. That is, optimistic bias serves to incline women to underestimate their own possibility of encountering sexual aggression (Hoeckner & White, 1995; Nason, 1995), to place themselves in situations that contain multiple risk factors (Cue & George, 1995; Nurius, Norris, Dimeff, & Graham, 1996), to overlook or misinterpret aggression cues when they do encounter them (Rozee, Bateman, & Gilmore, 1991), and to overestimate their efficacy in effectively resisting sexual aggression (Murnen, Perot, & Byrne, 1989).

These findings help us understand how a woman may have abstract knowledge about the general risk to women of sexual aggression by an acquaintance, but appraise her *own* risk as low and her individual capacity to handle a threat as high (Cue & George, 1995; Norris, Nurius, & Graham, 1995; relative to more general stress and coping, see Smith & Lazarus, 1993). Interventions designed to increase perceived susceptibility by decreasing optimism, positive self-regard, and perceived control run the risk of eroding a significant mental health asset and fostering a dangerous combination of high fear and low perceived self-efficacy. Moreover, as Weinstein and Klein (1995) demonstrate, optimistic biases relative to personal risk perceptions are exceptionally resistant to reduction and can be exacerbated by intervention manipulations. This suggests that education about risk is insufficient for effective rape resistance and risk reduction intervention, and that greater understanding of the dynamics of women's appraisal processes relative to their own risk and protection is needed.

Working Knowledge and Risk Perception

An additional element influencing women's cognitive processing of cues related to acquaintance sexual aggression involves limits of "working knowledge." That is, although people may amass a large repertoire of beliefs and coping responses, only a very limited amount of one's total cognitive repertoire can be activated or in awareness at any given moment (Anderson, 1983; Nurius, 1993). Which specific cognitive constructs are active at any given moment is partly a function of habit (e.g., those that define fundamental aspects of oneself, habitual activities, or responses) and partly a function of what has been situationally cued (e.g., different clusters of self and social constructs will be activated when partying with friends, in a job interview, or home with the family for the holidays). Activated constructs tend to be mood congruent; it is far easier to access constructs consistent with one's prevailing mood and difficult to access those at odds with one's emotional state (Brown & Taylor, 1986; Mayer, Gaschke, Braverman, & Evans, 1992; Nurius & Markus, 1990).

Another factor that significantly affects what information is involved in information processing is the mode of processing that the individual is operating in at that point or time. In familiar situations, information processing functions in a relatively automatic fashion, whereby individuals rely on assumptions and expectancies that have proven viable in prior

situations of that type (Bargh, 1989; Langer, 1989). Deliberate attention to details in the environment and intensive processing of cues requires a state of vigilance and mindfulness that is difficult to sustain for long and tends to be activated on an as-needed basis (e.g., novel situations in which prior experience or constructs may not apply, when deliberating potential action goals, or when a noticeable cue triggers alertness). Moreover, Taylor and Gollwitzer (1995) have demonstrated that nondeliberative mindsets—those in which people are more involved in carrying out goals or tasks than in conscious decision-making—are characterized by positive illusions; specifically, by greater perceptions of invulnerability, illusory control, positive mood, and positive self-perceptions (see also Gollwitzer & Kinney, 1989).

Thus, for example, if a woman is in a familiar situation and having a pleasant time, her salient cognitions will not only be consistent with the goals, scripts, and “good time” aspects of the situation, but cognitions contrary to this will be more difficult to access. Under such conditions, her mode of processing should be fairly automatic in nature and characterized by positivity biases. A particular set of behaviors that in a different context may be interpreted as danger cues would tend to be interpreted here in a manner congruent with prevailing cognitions and mood—perhaps as joking, showmanship, or efforts to foster intimacy. A woman may have information and skills related to risk reduction and self-protection stored within long-term memory. However, if these cognitive structures are not activated into working memory, they are not going to be exerting influence in how the woman perceives, interprets, and responds to her environment at that point or time.

This latter point was illustrated by survey data from sorority women who reported considerable detail in knowledge and experience of protecting other women from potential sexual aggressors, yet did not appear to draw upon these same constructs in their own socializing interactions with men (Norris et al., 1996). A critical variable distinguishing these different response patterns involves the goals and tasks that are organizing women’s thoughts and actions. When protecting others, these women were focused on a goal of “looking out for their sisters” and were drawing upon prototypes of “scam masters” they believed to pose a greater threat as they searched for protection-related cues. However, when focused more on implementing their own interpersonal goals related to socializing and dating, these same women reported working knowledge, mode of processing, and behaviors that were far more consistent with affiliation and entertainment than with risk reduction and self-protection. Given that women generally engage in social activities to pursue goals related to friendship, intimacy, and fun, this context is ripe for errors in cognitively processing danger cues relative to acquaintance sexual aggression.

This line of argument underscores a distinction important to intervention planning, between acquiring knowledge and skills to protect against acquaintance sexual aggression (information available in long-term memory) and being able or likely to access such knowledge or skills under conditions where risk is high (information activated into working knowledge).

Factors that impede access to self-protection information within normative social situations represent one set of concerns. The repertoire, level of detail, and likely efficacy of risk

reduction and resistance strategies that a woman has acquired constitute another set of concerns. For example, it is worrisome that recent findings show the average woman's perceptions of options for assault response (a) are relatively limited in number, (b) indicate a relative ignorance of strategies aimed at detecting or coping with assault by acquaintances, and (c) contain notable disparities between strategies women believe other women can do but that they themselves do not do (Furby et al., 1990; see also Riger & Gordon, 1981). Findings such as these highlight the importance of balancing efforts to increase women's capacity to detect risk with commensurate increases in women's preparedness for coping with perceived vulnerability in addition to actual threats they may encounter.

Personal Goals and Risk Perception

When considering risk of acquaintance sexual aggression, concerns regarding physical safety and avoidance of psychological trauma are uppermost in the mind of the public health specialist. However, from a social-relational point of view, there are a number of risks or potential negative outcomes that a woman may be simultaneously grappling with. Findings indicate, for example, that concerns about rejection by a man one has feelings for, embarrassment from the public attention that vigorous resistance would draw, being judged by others in negative terms (e.g., as "a bad girl" or "asking for it"), or incurring stigmatization of others with whom one is affiliated, play roles in women's decisions about how to respond to threat of acquaintance sexual aggression (see Cook, 1995; Norris et al., 1996; Renner, Wackett, & Ganderton, 1988).

From an individual risk perspective, not only are there multiple goals and multiple potential outcomes to consider at every decision point (such as safety versus positive social standing versus nurturing an intimate relationship versus cutting loose and having fun), but there are relative costs or consequences for both taking and not taking specific actions. For example, drinking alcohol entails potential risks as well as pleasures; not drinking entails the benefit of avoiding associated risks as well as costs of foregoing the pleasure or behaving differently from others. Although taking and avoiding risks would appear to be logical complementary actions, they do not necessarily translate into psychological equivalencies. Beyth-Marom, Austin, Fischhof, Palmgren, and Jacobs-Quadrel (1993), for example, found systematic differences in the consequences produced by adolescents and adults for taking versus avoiding risks (significantly more consequences were listed for taking versus not taking risky action). An exception was a striking deviation involving "social reactions of peers." Consistent with prior reported findings, potential losses of social standing (being negatively labeled or rejected) were mentioned more frequently as a meaningful consequence of not engaging in the health risk-related behaviors.

In essence, behaviors to avoid or resist acquaintance sexual aggression are embedded within a array of several risks, and safety may phenomenologically be experienced as a more remote and less salient risk relative to other forms of loss or injury. The people, activities, and situations that one is likely to gravitate toward, the importance one is likely to attach to these, and ways in which one is likely to perceive and respond to these more valued engagements are closely tied to the goals and concerns that are then prominent for any given individual (Cantor, 1994; Snyder, 1993). For example, pursuit of sexual activity for pleasure

and development of emotionally intimate relationships are personal goals related to socializing and dating for many adolescents and young adults (Christopher & Cate, 1984). However, these are neither the only nor necessarily the most important goals for all (Miller, Bettencourt, DeBro, & Hoffman, 1993; Silbereisen, Noack, & von Eye, 1992), and differing goals by individuals in the same social situations sets the stage for potential clashing agendas and perpetrators' deception and manipulation.

The central interest here is less in the nature of the various goals that individuals may bring to socializing situations and more in recognition of the impact that situational concerns and goals will have on the social and cognitive processes governing perception of, and response to, risk. If perceiving and initiating a self-protective response involves a multivariate assessment of the potential gains and losses associated with a range of possible actions (e.g., levels and forms of resistance) across several areas of concern (e.g., being nice, one's social standing, safety), then a comparable system of multivariate measurement and analytic strategies are necessary to validly predict and explain risk perception in this life domain. This multivariate approach extends to interventions to reduce risk or increase self-protection. Sanderson and Cantor (1995), for example, found that educational interventions regarding use of condoms to promote safer sex that emphasized differing social dating goals (intimacy versus identity) were most effective for those individuals whose goals matched the message.

Illusion of Control and Risk Perception

Perceptions regarding risk and those regarding personal control are closely related but distinct. It is important to prepare women to both look for risk and to be realistically prepared to cope with it once encountered. People can make distinctions among sources of risk and recognize the limits of control they have over sources, such as environmental causation or heritability (Weinstein, 1982, 1984). When risk is determined by factors (e.g., competition, choice, or involvement) over which one could conceivably exercise personal control, the typical result is exaggerated perceptions of one's capacity to influence outcomes. McKenna (1993), for example, found that subjects estimated their own risk of being involved in an accident as average when riding as a passenger but as unlikely when they are the driver—thus, through exercise of personal skill, one can create relative immunity. This perceptual difference was eliminated when the experimental paradigm presented circumstances that were explicitly uncontrollable by the driver.

This raises important questions for acquaintance sexual aggression. Specifically, to what degree do women think of themselves in terms analogous to being “drivers” in these circumstances and to what extent do they anticipate the circumstances to permit them to exert influence over outcomes? Realistically, there are limits to any woman's ability to control a man's choices and behavior. Reports on women's fear of stranger rape and steps commonly taken to avoid risk situations suggest recognition of these limits (Riger et al., 1982; Warr, 1985).

By contrast, women reflect relative ignorance of strategies aimed at preventing acquaintance rape (Furby et al., 1990). This lack of skill attainment is not surprising, given that they rate the likelihood of encountering sexual aggression by a male acquaintance to be extremely

low (Cue & George, 1995; Hoeckner & White, 1995; Norris et al., 1995). Women who have encountered recent acquaintance sexual aggression report significantly greater future risk relative to those who have not been similarly victimized, but continue to see their future risk as relatively low (Norris et al., 1995). And, although cumulative risk over time is high, risk associated with any given male acquaintance or social situation is low. Thus, it is not surprising that women assume that the male acquaintances and social circumstances they encounter will be responsive to their personal preferences and exertion of control.

Here we see a parallel conundrum in that individuals who *overestimate* their skills and capacity to control situations and outcomes (as with those who *underestimate* the likelihood that negative events will happen to them) are relatively unlikely to engage in risk avoidance or precaution adoption behavior. Stereotypes of victims, perpetrators, and high-risk situations would be expected to further exacerbate these biases. For example, if I compare myself, my male acquaintances, and my life situations to these stereotypes (many of which are based on accounts of stranger assault and on sensationalized media portrayals), I see a lot of differences that tend to confirm my a priori belief that there are characteristics different about those people and circumstances that account for their experience.

Alcohol and Risk Perception¹

As previously indicated, many of the variables that have been found to be associated with perpetration of acquaintance sexual aggression are also closely associated with common socializing circumstances and confound the task of risk perception. It is beyond the scope of this paper to undertake a thorough discussion of the myriad situational variables needed to achieve accurate assessment of risk and effective risk protective action. Thus, the focus will be on one such variable, alcohol consumption, to illustrate the complex ways in which situational factors can affect individuals' capacities to perceive risk.

Alcohol has been found to be associated with as many as 80% of sexual assaults (Kanin, 1984, 1985; Koss et al., 1987; Scully & Marolla, 1984; White, 1994). Although a correlation between alcohol consumption and sexual aggression appears stable and significant, there is not a clear understanding of how alcohol contributes to sexual aggression (Martin, 1992). One avenue of influence that has begun to receive increased attention is alcohol's effect on men that may serve to increase the likelihood of sexual aggression (e.g., that men view alcohol as a means of coercing sexual relations, that it affects what cues they notice and how these are interpreted, that men use alcohol to justify sexual aggression) (Abbey, Ross, & McDuffie, 1994; Abbey & Thompson, 1992; Kanin, 1984; Koss & Gaines, 1993).

Less studied, but perhaps equally important, are the ways alcohol may affect women's ability to perceive a situation as potentially threatening. A major factor affecting the ability to resist assaults lies in the cognitive appraisal processes that a woman must undertake before she engages in a behavioral response. As previously noted, this involves primary appraisals regarding whether the situation poses a threat to her and secondary appraisals regarding whether she can adequately control that threat. An important question is how expectancies associated with alcohol can affect women's primary appraisal processes by

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amplifying expectations for enhanced sociability and sexuality and muting expectancies for sexual aggression. Expectancies refers to individuals' prior beliefs about the effects of alcohol on behavior, moods, and emotions, often referred to as outcome expectancies (Leigh, 1989). Such expectancies have been shown to be a significant predictor of drinking for college students (Martin & Hoffman, 1993; Stacy, Widaman & Marlatt, 1990). In addition, alcohol expectancies specific to sexuality have been related to initiation and occurrence of sexual activity while drinking (Leigh, 1989). No research to date has assessed women's alcohol expectancies associated with male sexual aggression, although one study has noted a belief by some women that men who drink are easier to handle (Fischhoff, Furby, & Morgan, 1987).

A second aspect of alcohol consumption that increases the likelihood of sexual aggression concerns its pharmacological effects on the cognitive appraisal of social cues. The mere presence of alcohol can act as a cue to stimulate sexual interest and permissiveness, while simultaneously dampening perceived gravity of sexual assault (Norris & Cubbins, 1992; Norris & Kerr, 1993). In addition, a response conflict model (Steele & Josephs, 1990) suggests that, for those who drink, alcohol focuses attention on instigatory rather than inhibitory cues. By focusing on these instigatory cues, alcohol diminishes conflict individuals see in the situation or feel about their responses. For women who drink in dating or other social situations this may mean misinterpreting early warning signs and continuing to seek an affiliative relationship with a male acquaintance who is initiating forced sexual contact. That is, alcohol can serve to amplify women's attention to cues associated with their personal goals in the situation (such as having fun with friends, meeting males they find attractive and developing a relationship, engaging in physical or sexual activities up to a certain point) and recognition of conflicting cues or tension experienced in relation to considering the risk of sexual aggression is decreased.

Norris and Kerr (1993) have provided evidence that is consistent with this line of reasoning. They found that women who drank a moderate amount of alcohol perceived less force and thus greater acceptability of the behavior of a sexually aggressive male portrayed in a vignette than did sober women. Drinking women also were more likely than nondrinkers to express the belief that they would behave in a manner similar to a woman depicted as enjoying a sexual assault in a pornographic story. These and related findings may be due to the fact that alcohol's impairment of cognitive functioning increases with dosage, and the greater the impairment the more thoroughly peripheral cues and embedded meanings will be occluded from awareness (Steele & Josephs, 1990). Thus, as women imbibe greater amounts of alcohol, their ability to perceive risk-related cues is increasingly diminished.

Of course, alcohol not only affects cognitive processes associated with detecting risk-related cues. Consumption also impairs physical coordination and problem-solving ability, thus decreasing the woman's capacity to engage in defensive problem-solving and effective physical resistance, particularly if caught off guard with respect to aggression by a social acquaintance or dating partner. Indeed, one third of sorority women surveyed reported that alcohol consumption would be a significant barrier to making an effective response to an assault (Norris et al., 1995). Abbey and Ross (1992) found that alcohol consumption by a woman was much more likely to be associated with completed rape than with unsuccessful

rape attempts. Furthermore, Hawks and Welch (1991) found that women who had been drinking at the time of a rape reported less resistance and less clarity of the nonconsent than women who were not consuming alcohol when raped.

To summarize, alcohol appears to decrease women's ability to perceive and to resist sexual aggression through both the expectancy and pharmacological effects of alcohol. First, peer norms that pair drinking with socializing and outcome expectancies about alcohol's ability to enhance social and sexual interactions normalize and encourage alcohol consumption in such situations. Women who hold these types of expectations are less likely to consider or believe that alcohol increases the probability of sexual aggression. Because of these prior assumptions and alcohol's effects on cognitive appraisal processes, women, when drinking, are more likely to focus on cues associated with the affiliation dimensions of the social context than on danger cues, thus decreasing the likelihood they will perceive early cues of sexual aggression. Finally, alcohol consumption is likely to impair women's preparedness or capacity to decisively and effectively ward off acquaintance sexual aggression (Bushman & Cooper, 1990).

It is important to emphasize that discussion of alcohol's impairing and endangering effects on women, relative to their ability to detect and respond to aggression, is not intended to support the myth that women who drink somehow "invite" sexual aggression (Burt, 1980). Rather, it is important to recognize that young women and men in socializing together frequently drink; this is a societally acceptable and even glamorized activity. Most socializing that involves drinking not only does not include sexual aggression but does include enjoyable experiences and memories. However, when sexual aggression is encountered, alcohol is very often a contributing factor. Part of the challenge, therefore, is to retain both social goals and safety goals in a manner that is acceptable and sustainable in the lives of today's youth and young adults.

CONCLUSIONS

The notion of risk perception, in some respects, transforms acquaintance sexual assault into a "new problem"—or at least a new construction of and approach to a very old problem. It was not that long ago that we did not even have common language for the experience; which contrasts sharply with what some now see as the date-rape hype (Roiphe, 1993). A fundamental premise of this paper is that effective efforts to assist women in avoiding and resisting acquaintance sexual aggression will require an understanding of the preludes as she experiences them. This article has outlined many of the factors specific to acquaintance sexual aggression and the contexts within which it often arises that pose special challenges to risk perception and self-protection. The paper has also outlined many of the common social-cognitive factors identified across a range of health and safety issues to undergird risk perception as a phenomenon and process.

Part of what quickly becomes evident is that risk perception occurs on multiple levels. One level involves the knowledge that a certain kind of threat exists and poses sufficient threat to a sufficient number of people to warrant attention. Another level of risk perception involves our personal sense of the likelihood of encountering this threat in the future and of how well

we could eliminate or manage the threat as well as what we are willing or capable of undertaking to avoid the threat or reduce our risk. Most of the risk perception research addresses questions and issues at these two levels. These are relevant to acquaintance sexual threat, but there is an additional level of risk perception that poses some of the greatest challenges. This has to do with perceiving in any given situation with any given man, what degree of threat he potentially poses, how one can and should respond, and the positives and negatives of the likely fall-out.

One of the benefits of distinguishing among these different forms of risk perception is the guidance provided in subsequent research and intervention efforts. Different types of intervention strategies are likely to be better suited to some forms of risk perception than others (Jeffery, 1989). Efforts to raise awareness and general education will not necessarily translate into enhanced perception of future personal risk (cf. Slovic, 1987). Campaigns to inform women of their own future probability of encountering acquaintance sexual aggression will neither equip them to detect threat by a given man familiar to them nor prepare them to cope with the tangle of competing social-cognitive variables that are likely to characterize that situation. Training women to be wary of all men is a flawed response. While a certain amount of risk susceptibility recognition is important to motivating self-protection, “perceived loomingness” (Riskind & Maddux, 1994) and generalized fear can create as many problems as it serves to solve (Gordon & Riger, 1989; Kelly & DeKeseredy, 1994).

As Weinstein (1987) points out, people often seem ingenious in finding reasons for believing that their own risk is less than risk faced by peers. Recent evidence suggests that women experience self-protection against acquaintances or dates as a lose-lose bind; that avoiding sexual coercion often entails other kinds of costs, some of which are highly salient in the moment (Norris et al., 1995). This parallels findings by Beyth-Marom et al. (1993), that risk must be interpreted in a multidimensional framework and that many of the contemporary decision models do not adequately account for effects of emotions or contextual variables. Future investigation and program development need to be equally ingenious in understanding the complexity in gaining an accurate picture of one’s own susceptibility to harm, in sustaining risk search vigilance, and in grappling with the tangle of ambiguities, conflicts, and trade-offs.

Acquaintance sexual aggression risk perception is fundamentally both a social and a cognitive phenomenon. Thus, research and programs that keep individual women embedded within their relevant social contexts would seem to hold greatest promise. A number of studies have found investigation of factors such as interpersonal communication channels (Coleman, 1993), the social climate of a group (Cook, 1995), peer norms (Gwartney-Gibbs & Stockard, 1989), in-group social comparisons (Gibbons & Gerrad, 1995; Norris et al., 1995), and information about risk rates based in one’s local community (Klepinger, Billy, Tanfer, & Grady, 1993) to be fruitful in shedding light on the social context within which risk perception is undertaken and to increase perceived self-relevance of risk. In a related vein, the preponderance of theorizing and findings related to risk perception in general and to acquaintance sexual aggression in particular have been based on samples containing little diversity with respect to socioeconomic status, racial or cultural heritage, religious

affiliation, or other social group heterogeneity. In short, diversification and attention to women's social niches and referents represent important future endeavors.

As much promise as this direction of investigation and program development holds, there are important caveats as well. Focus on women's perception of threat by men can all too easily lead to blaming women for not detecting his threat soon enough or not moving to control his behavior decisively enough or in a variety of ways, laying the onus of managing or doing away with the problem of his coercive and assaultive behavior at her doorstep. The goal of this paper has been to stimulate critical and creative thought about the phenomenon of individual risk perception as it relates to women's risk of sexual aggression by male acquaintances. While this goal can serve to fortify women's empowerment within their private lives, responsibility for sexually aggressive behavior must unequivocally remain with the perpetrator, and efforts to end violence against women must include stopping perpetration of violence.

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REFERENCES

- Abbey, A.; Ross, LT. Role of alcohol in understanding misperception in sexual assault; Paper presented at the Hundredth Annual Meeting of the American Psychological Association; San Francisco. 1992 Aug.
- Abbey, A.; Ross, LT.; McDuffie, D. Alcohol's role in sexual assault. In: Watson, RR., editor. Drug and alcohol abuse reviews, Vol. 5, Addictive behaviors in women. Totowa, NJ:: Humana Press; 1994.
- Abbey, A.; Thompson, L. Role of alcohol and gender beliefs in the perpetration of sexual assault; Paper presented at the Annual Meeting of the American Psychological Society; San Diego. 1992.
- Aizenman M, Kelly G. The incidence of violence and acquaintance rape in dating relationships among college men and women. *Journal of College Student Development*. 1988; 29:132–136.
- Anderson, JR. The architecture of cognition. Cambridge, MA: Harvard University Press; 1983.
- Bargh, JA. Conditional automaticity: Varieties of automatic influence in social perception and cognition. In: Uleman, JS.; Bargh, JA., editors. *Unintended thought*. New York: Guilford Press; 1989. p. 3-51.
- Bart, PB.; O'Brien, PH. *Stopping rape: Successful survival strategies*. Elmsford: Pergamon Press; 1985.
- Benthin A, Slovic P, Severson H. A psychometric study of adolescent risk perception. *Journal of Adolescence*. 1993; 16:153–168. [PubMed: 8376640]
- Beyth-Marom R, Austin L, Fischhoff B, Palmgren C, Jacobs-Quadrel M. Perceived consequences of risky behaviors: Adults and adolescents. *Developmental Psychology*. 1993; 29:549–563.
- Breckler, SJ.; Greenwald, AG. Motivational facets of the self. In: Sorrentino, RM.; Higgins, ET., editors. *Handbook of motivation and cognition: Foundations of social behavior*. New York: Guilford Press; 1986.
- Brown JD, Taylor SE. Affect and processing of personal information: Evidence for mood-activated self-schemata. *Journal of Experimental Social Psychology*. 1986; 22:436–452.
- Burt MR. Cultural myths and supports for rape. *Journal of Personality and Social Psychology*. 1980; 38:217–230. [PubMed: 7373511]

- Bushman BJ, Cooper HM. Effects of alcohol on human aggression: An integrative research review. *Psychological Bulletin*. 1990; 107:341–354. [PubMed: 2140902]
- Byers ES, Giles BL, Price DL. Definiteness and effectiveness of women's responses to unwanted sexual advances: A laboratory investigation. *Basic and Applied Social Psychology*. 1987; 8:321–338.
- Byers ES, Lewis K. Dating couples' disagreements over the desired level of sexual intimacy. *Journal of Sex Research*. 1988; 24:15–29. [PubMed: 22375632]
- Cantor N. Life task problem solving: Situational affordances and personal needs. *Personality and Social Psychology Bulletin*. 1994; 20:235–243.
- Christopher FS, Cate RM. Factors involved in premarital decision-making. *Journal of Sex Research*. 1984; 20:363–376.
- Coleman C. The influence of mass media and interpersonal communication on societal and personal risk judgments. *Communication Research*. 1993; 20:611–628.
- Cook SL. Acceptance and expectation of sexual aggression in college students. *Psychology of Women Quarterly*. 1995; 19:181–194.
- Cue, KL.; George, WH. Perceptions of sexual assaultive risk: Positive illusion and alcohol effects; Presented at a meeting of the American Psychological Association; New York. 1995.
- Dunwoody, S.; Neuwirth, K. Coming to terms with the impact of communication on scientific and technological risk judgments. In: Wilkins, L.; Patterson, P., editors. *Risky business: Communicating issues of science, risk, and public policy*. New York: Greenwood; 1991. p. 11-30.
- Fischhoff B, Furby L, Morgan M. Rape prevention: A typology of strategies. *Journal of Interpersonal Violence*. 1987; 2:292–308.
- Fischhoff, B.; Slovic, P.; Lichtenstein, S. Lay foibles and expert fables in judgments about risks. In: O'Riordan, T.; Turner, RK., editors. *Process in resource management and environmental planning*. New York: Wiley; 1981. p. 161-202.
- Friedland N, Keinan G, Regev Y. Controlling the uncontrollable: Effects of stress on illusory perceptions of controllability. *Journal of Personality and Social Psychology*. 1992; 63:923–931. [PubMed: 1460560]
- Furby, L.; Fischhoff; Morgan, M. Preventing rape: How people perceive the options for assault prevention. In: Viano, E., editor. *The victimology research handbook*. New York: Garland; 1990. p. 227-259.
- Gibbons FX, Gerrad M. Predicting young adults' health risk behavior. *Journal of Personality and Social Psychology*. 1995; 69:505–517. [PubMed: 7562392]
- Gollwitzer PM, Kinney RF. Effects of deliberative and implemental mind-sets on illusion of control. *Journal of Personality and Social Psychology*. 1989; 56:531–542.
- Gordon, M.; Riger, S. *The female fear*. New York: Free Press; 1989.
- Greenwald AG. The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*. 1980; 35:603–618.
- Gwartney-Gibbs, P.; Stockard, J. Courtship aggression and mixed-sex peer groups. In: Pirog-Good, MA.; Stets, JE., editors. *Violence in dating relationships: Emerging social issues*. New York: Praeger; 1989. p. 185-204.
- Hawks, BK.; Welch, CD. Alcohol and experience of rape; Paper presented at the Annual Meeting of the American Psychological Association; Washington, DC. 1991.
- Hickman SE, Muehlenhard CL. College women's fears and precautionary behaviors relating to acquaintance and stranger rape. *Psychology of Women Quarterly*. 1997; 21:527–547.
- Hoekner, K.; White, JW. Perceptions of invulnerability to sexual assault; Paper presented at the 103rd Convention of the American Psychological Association; New York. 1995.
- Janoff-Bulman, R.; Timko, C. Coping with traumatic life events: The role of denial in light of people's assumptive worlds. In: Snyder, CR.; Ford, C., editors. *Coping with negative life events: Clinical and social psychological perspectives*. New York: Plenum Press; 1987.
- Janz NK, Becker MH. The health belief model: A decade later. *Health Education Quarterly*. 1984; 11:11–47.

- Jeffery RW. Risk behaviors and health: Contrasting individual and populations perspectives. *American Psychologist*. 1989; 44:1194–1202. [PubMed: 2675699]
- Kanin E. Date rape: Unofficial criminals and victims. *Victimology: An International Journal*. 1984; 9:95–108.
- Kanin E. Date rapists: Differential sexual socialization and relative deprivation. *Archives of Sexual Behavior*. 1985; 14:219–231. [PubMed: 4004546]
- Kelly KD, DeKeseredy WS. Women's fear of crime and abuse in college and university dating relationships. *Violence and Victims*. 1994; 9:17–30. [PubMed: 7826932]
- Kilpatrick DG, Best CL, Veronen LJ, Amick AE, Villeponteaux LA, Ruff GA. Mental health correlates of criminal victimization: A random community survey. *Journal of Consulting and Clinical Psychology*. 1985; 53:866–873. [PubMed: 4086687]
- Klepinger DH, Billy JOG, Tanfer K, Grady WR. Perceptions of AIDS risk and severity and their association with risk-related behavior among U.S. men. *Family Planning Perspectives*. 1993; 25:74–82. [PubMed: 8491289]
- Koss MP. Rape: Scope, impact, interventions and public policy responses. *American Psychologist*. 1993; 48:1062–1069. [PubMed: 8256879]
- Koss MP, Gaines JA. The prediction of sexual aggression by alcohol use, athletic participation, and fraternity affiliation. *Journal of Interpersonal Violence*. 1993; 8:94–108.
- Koss MP, Gidycz CJ, Wisniewski N. The scope of rape: Incidence and prevalence of sexual aggression and victimization. *Journal of Consulting and Clinical Psychology*. 1987; 55:162–170. [PubMed: 3494755]
- Langer, EJ. *Mindfulness*. Reading, MA: Addison-Wesley; 1989.
- Larwood L. Swine flu: A field study of self-serving biases. *Journal of Applied Social Psychology*. 1978; 8:283–289.
- Lazarus, R.; Folkman, S. *Stress, appraisal, and coping*. New York: Springer; 1984.
- Leigh BC. In search of the seven dwarves: Issues of measurement and meaning in alcohol expectancy research. *Psychological Bulletin*. 1989; 105:361–373. [PubMed: 2660178]
- Levine-MacCombie J, Koss MP. Acquaintance rape: Effective avoidance strategies. *Psychology of Women Quarterly*. 1990; 10:311–319.
- Martin CM, Hoffman MA. Alcohol expectancies, living environment, peer influence and gender: A model of college-student drinking. *Journal of College Student Development*. 1993; 34:206–211.
- Martin SE. The epidemiology of alcohol-related interpersonal violence. *Alcohol Health and Research World*. 1992; 16:230–237.
- Mayer JD, Gaschke YN, Braverman DL, Evans TW. Mood-congruent judgments is a general effect. *Journal of Personality and Social Psychology*. 1992; 63:119–132.
- McKenna FP. It won't happen to me: Unrealistic optimism or illusion of control? *British Journal of Psychology*. 1993; 84:39–50.
- Miller, LC.; Bettencourt, BA.; DeBro, SC.; Hoffman, V. Negotiating safer sex: Interpersonal dynamics. In: Pryor, J.; Reeder, G., editors. *The social psychology of AIDS infection*. Hillsdale, NJ: Erlbaum; 1993. p. 85-123.
- Muehlenhard CL, Linton MA. Date rape and sexual aggression in dating situations: Incidence and risk factors. *Journal of Counseling Psychology*. 1987; 34:186–196.
- Murnen SK, Perot A, Byrne D. Coping with unwanted sexual activity: Normative responses, situational determinants, and individual differences. *Journal of Sex Research*. 1989; 26:85–106.
- Nason, JK. Unpublished Honors Thesis. Seattle: University of Washington; 1995. Positivity bias in perceptions of health risks among depressed and nondepressed college women.
- Nisbett, RE.; Ross, L. *Human inference: Strategies and shortcomings of social judgment*. Englewood Cliffs, NJ: Prentice-Hall; 1980.
- Norris J, Cubbins LA. Dating, drinking and rape: Effects of victim's and assailant's alcohol consumption on judgments of their behavior and traits. *Psychology of Women Quarterly*. 1992; 16:179–191.
- Norris J, Kerr KL. Alcohol and violent pornography: Responses to permissive and nonpermissive cues. *Journal of Studies on Alcohol*. 1993; 11:118–127.

- Norris J, Nurius PS, Dimeff LA. Through her eyes: Factors affecting women's perception of and resistance to acquaintance sexual aggression threat. *Psychology of Women Quarterly*. 1996; 20:123–145.
- Norris, J.; Nurius, PS.; Graham, TL. Women's perception of risk for acquaintance sexual assault: A social-cognitive assessment; Paper presented at the Annual Meeting of the American Society of Criminology; Boston. 1995.
- Nurius PS. Human memory: A basis for better understanding the elusive self-concept. *Social Service Review*. 1993; 67:261–278.
- Nurius PS, Markus H. Situational variability in the self-concept: Appraisals, expectancies, and asymmetries. *Journal of Social & Clinical Psychology*. 1990; 9:316–333.
- Nurius PS, Norris J, Dimeff LA, Graham TL. Expectations regarding acquaintance sexual aggression among sorority and fraternity members. *Sex Roles*. 1996; 35:427–444.
- Perloff LS, Fetzer BK. Self-other judgments and perceived vulnerability to victimization. *Journal of Personality and Social Psychology*. 1986; 50:502–511.
- Renner KE, Wackett C, Ganderton S. The "social" nature of sexual assault. *Canadian Psychology*. 1988; 29:163–173.
- Riger S, Gordon MT. The fear of rape: A study in social control. *Journal of Social Issues*. 1981; 37:71–92.
- Riger S, Gordon MT, LeBailly RK. Coping with urban crime: Women's use of precautionary behaviors. *American Journal of Community Psychology*. 1982; 10:369–386. [PubMed: 7137126]
- Riskind JH, Maddux JE. Loomingness and the fear of AIDS: Perceptions of motion and menace. *Journal of Applied Social Psychology*. 1994; 24:432–442.
- Roiphe, K. *The morning after: Sex fear, and feminism on campus*. Boston: Little, Brown; 1993.
- Rozee, PD.; Bateman, P.; Gilmore, T. The personal perspective of acquaintance rape prevention: A three-tier approach. In: Parrot, A.; Bechhofer, L., editors. *Acquaintance rape: The hidden crime*. New York: John Wiley & Sons; 1991. p. 9-25.
- Sanderson CA, Cantor N. Social dating goals in late adolescence: Implications for safer sexual activity. *Journal of Personality and Social Psychology*. 1995; 68:1121–1134. [PubMed: 7608858]
- Scheier MF, Carver CS. Optimism, coping and health: Assessment and implications of generalized outcome expectancies. *Health Psychology*. 1985; 4:219–247. [PubMed: 4029106]
- Scheier MF, Carver CS. Dispositional optimism and physical well-being: The influence of generalized outcome experiences on health. *Journal of Personality*. 1987; 55:169–210. [PubMed: 3497256]
- Scully D, Marolla J. Convicted rapists' vocabulary of motive: Excuses and justifications. *Social Problems*. 1984; 31:530–544.
- Silbereisen RK, Noack P, von Eye A. Adolescents' development of romantic friendship and change in favorite leisure contexts. *Journal of Adolescent Research*. 1992; 7:80–93.
- Slovic P. Perception of risk. *Science*. 1987; 236 28-0-285.
- Smith, CA.; Lazarus, RS. Emotion and adaptation. In: Pervin, LA., editor. *Handbook of personality: Theory and research*. New York: Guilford Press; 1990.
- Smith CA, Lazarus RS. Appraisal components, core relational themes, and the emotions. *Cognition and Emotion*. 1993; 7:233–269.
- Snyder M. Basic research and practical problems: The promise of a "functional" personality and social psychology. *Personality and Social Psychology Bulletin*. 1993; 19:251–264.
- Stacy AW, Widaman KE, Marlatt GA. Expectancy models of alcohol use. *Journal of Personality and Social Psychology*. 1990; 58:918–928. [PubMed: 2348377]
- Steele CM, Josephs RA. Alcohol myopia: Its prized and dangerous effects. *American Psychologist*. 1990; 48:921–933. [PubMed: 2221564]
- Taylor, SE. *Positive illusions: Creative self-deception and the healthy mind*. New York: Basic Books; 1989.
- Taylor SE, Brown JD. Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*. 1988; 103:193–210. [PubMed: 3283814]
- Taylor SE, Brown JD. Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin*. 1994; 116:21–27. [PubMed: 8078971]

- Taylor SE, Gollwitzer PM. Attitudes and social cognition. *Journal of Personality and Social Psychology*. 1995; 69:213–226. [PubMed: 7643303]
- Taylor SE, Kemeny ME, Aspinwall LG, Schneider SG, Rodriguez R, Herbert M. Optimism, coping, psychological distress, and high-risk sexual behavior among men at risk for acquired immune deficiency syndrome. *Journal of Personality and Social Psychology*. 1992; 63:460–473. [PubMed: 1403625]
- Tyler TR, Cook FL. The mass media and judgments of risk: Distinguishing impact on personal and societal level judgments. *Journal of Personality and Social Psychology*. 1984; 47:693–708.
- Ullman SE, Knight RA. A multivariate model for predicting rape and physical injury outcomes during sexual assaults. *Journal of Consulting and Clinical Psychology*. 1991; 59:724–731. [PubMed: 1955606]
- Ullman SE, Knight RA. Fighting back: Women's resistance to rape. *Journal of Interpersonal Violence*. 1992; 7:31–43.
- Warr M. Fear of rape among urban women. *Social Problems*. 1985; 32:238–250.
- Weinstein ND. Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*. 1980; 38:806–820.
- Weinstein ND. Unrealistic optimism about susceptibility to health problems. *Journal of Behavioral Medicine*. 1982; 5:441–460. [PubMed: 7154065]
- Weinstein ND. Why it won't happen to me: Perceptions of risk factors and susceptibility. *Health Psychology*. 1984; 3:431–457. [PubMed: 6536498]
- Weinstein ND. Unrealistic optimism about susceptibility to health problems: Conclusions from a community-wide sample. *Journal of Behavioral Medicine*. 1987; 10:481–401. [PubMed: 3430590]
- Weinstein, ND. References on perceived invulnerability and optimistic bias about risk of future life events. Unpublished listing, Rutgers University; 1993a.
- Weinstein ND. Testing four competing theories of health protective behavior. *Health Psychology*. 1993b; 12:324–333. [PubMed: 8404807]
- Weinstein ND, Klein WM. Resistance of personal risk perceptions to debiasing interventions. *Health Psychology*. 1995; 14:132–140. [PubMed: 7789348]
- White, J. Alcohol/drug use and sexual aggression: Distal and proximal influences; Paper presented at the University of Washington School of Social Work in a special presentation co-sponsored by the University of Washington Alcohol and Drug Abuse Institute, School of Social Work and Psychology Department; Seattle, WA. 1994.
- Zakay D. The relationship between the probability assessor and the outcomes of an event as a determiner of subjective probability. *Acta Psychologica*. 1983; 53:271–280.
- Zakay D. The influence of perceived event's controllability on its subjective occurrence probability. *Psychological Record*. 1984; 34:233–240.