

Applying the Attention-Allocation Model to the Explanation of Alcohol Consumption-Related Aggression: Implications for Prevention

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The primary purpose of this article is to apply the attention allocation model (AAM; Steele and Josephs, 1990) to the explanation, as well as the prevention, of alcohol-related violence. The two faces of alcohol myopia: attentional mediation of psychological stress. Journal of Abnormal Psychology, 99:115–126) to the explanation, as well as the prevention, of alcohol-related violence. The AAM contends that alcohol has a “myopic” effect on attentional capacity that presumably facilitates aggression by narrowing attentional focus on the most salient provocative cues that are naturally present in hostile situations, rather than less salient inhibitory cues. Data are presented to demonstrate support for the AAM with regard to alcohol-related aggression. The model has also been expanded to suggest some intermediary mechanisms that may account for how distracting attention away from provocative cues might be involved in the reduction of aggression. Finally, a number of practical suggestions are put forth regarding how the AAM can be applied to the prevention of intoxicated aggression.

Keywords alcohol; aggression; attention; prevention

Pihl and Sutton (2009) correctly and succinctly distilled a mass literature on alcohol-related aggression/violence into two simple sentences: “*The evidence is clear and substantial. The acute use of alcohol/drugs and interpersonal aggression readily mix.*” In fact, data from the *National Crime Victimization Survey* indicate that alcohol was present, during the time of the transgression, in 63% of intimate partner violence incidents, 39%–45% of murders, 32%–40% of sexual assaults, and 45%–46% of physical assaults (Greenfeld and Henneberg, 2001). Furthermore, a review of 26 studies carried out in 11 countries corroborated these findings by demonstrating that 63% of violent criminals committed their offenses while under the influence of alcohol (Murdoch, Pihl, and Ross, 1990). The alcohol-aggression relation brings with it economic costs that have been estimated to exceed \$205 billion, with 85% of these costs attributable to violent crime and with alcohol being responsible for more than double the costs of all other drugs combined (Miller, Levy, Cohen, and Cox, 2006). Research has also determined that it is alcohol’s acute, rather than its chronic, effects that

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have the greatest impact on aggressive behavior (e.g., Fals-Stewart, 2003; Murphy, Winters, O'Farrell, Fals-Stewart, and Murphy, 2005).

Although alcohol and aggression "readily mix," this relation is not ubiquitous. Alcohol consumption facilitates aggression for some – but not for all – persons. Meta-analytic studies indicate that alcohol has a "medium" effect size ($d = .47$ to $.61$) on aggression (Bushman, 1993; Bushman and Cooper, 1990; Ito, Miller, and Pollock, 1996). By not taking into account key moderating factors, this effect size obfuscates alcohol's true effect on aggressive behavior. In other words, alcohol has a very strong effect on increasing aggression for some individuals, but relatively little effect for others. Given this complex relation between alcohol and aggression, researchers have focused on identifying variables that moderate the alcohol-aggression link.

Numerous studies have identified individual difference variables that serve as risk factors for alcohol-related aggression, including dispositional aggressivity (Heyman, O'Leary, and Jouriles, 1995; Smucker-Barnwell, Borders, and Earleywine, 2006), irritability (Giancola, 2002), trait anger (Parrott and Zeichner, 2002), hostile rumination (Aviles, Earleywine, Pollock, Stratton, and Miller, 2005; Borders, Smucker-Barnwell, and Earleywine, 2007), hostility, permissive beliefs about aggression (Leonard and Senchak, 1993), deviant attitudes (Zhang, Wiczorek, and Welte, 2002), sensation seeking (Cheong and Nagoshi, 1999), as well as lower levels of anger control (Parrott and Giancola, 2004), self-awareness (Bailey and Taylor, 1991; Berman, Bradley, Fanning, and McCloskey, in press), socialization, self-control (Boyatzis, 1975), dispositional empathy (Giancola, 2003), intelligence (Welte and Wiczorek, 1999), and executive cognitive functioning (Giancola, 2004a). Moreover, alcohol has been found to potentiate aggression for persons who are heavy drinkers (Hines and Straus, 2007; Parrott and Giancola, 2006), who have a difficult temperament (Giancola, 2004b), a highly desired image of power (Quigley, Corbett, and Tedeschi, 2002), beliefs that alcohol causes aggression (Dermen and George, 1989; Smucker-Barnwell et al., 2006), as well as high marital conflict (Quigley and Leonard, 1999), and dissatisfaction (Leonard and Senchak, 1993).

Clearly, identifying variables that place an individual at risk for intoxicated aggression offers useful information, but it is equally important to understand how and why alcohol leads to such behavior. Although researchers have proposed some mechanisms that possibly underlie the alcohol-aggression relation, empirical studies testing these mechanisms are scarce. Given that approximately 50% of violent interpersonal interactions involve alcohol (Lunetta, Penttila, and Sarna, 2001; U.S. Bureau of Justice Statistics, 2003) and considering the exorbitant costs associated with such behavior (Miller et al., 2006), it is critical to understand the risk factors and the mechanisms involved in this relation. By understanding these risk factors and mechanisms, researchers will be in a position to develop better explanatory theories as well as improve upon existing clinical and public health safety/awareness interventions for alcohol-related violence.

Attention-Allocation Model (AAM)

Theory. Contemporary theorists postulate that alcohol influences aggression through an indirect path involving the disruption of intermediary mechanisms that then determine whether alcohol will, or will not, facilitate aggression (e.g., Klostermann and Fals-Stewart, 2006). One of the most well-accepted contemporary theories of this type is the AAM. The AAM was advanced in earlier forms by Pernanen (1976) and Taylor and Leonard (1983) and then significantly expanded by Steele and Josephs (1990). The model postulates that acute alcohol consumption impairs controlled effortful cognitive processing; in other words,

abilities that are heavily dependent on good attentional capacity. This alcohol-induced impairment creates a narrowing or “myopic” effect on attention that restricts the range of internal and external cues that can be perceived and processed. As a result, remaining attentional resources are allocated to only the most salient cues in the environment. As such, alcohol facilitates aggression by narrowing attentional focus on the most salient provocative cues that are naturally present in hostile situations, rather than less salient inhibitory cues. As a consequence of this myopic effect, the full meaning of less salient inhibitory cues is never fully processed, or possibly even perceived, thus increasing the probability of an aggressive reaction.

In addition to specifying when alcohol will increase aggression, the AAM makes the counterintuitive prediction that alcohol consumption can actually *decrease* aggression. The model maintains that if attention is distracted away from provocative cues and diverted toward even more salient inhibitory cues, then aggression will be suppressed (see Giancola and Corman, 2007). In other words, in a situation where inhibitory cues are most salient, the alcohol myopia effect will focus remaining attentional resources on those inhibitory cues and therefore leave no “space” in working memory to allocate to any less salient provocative cues, thus decreasing the likelihood of an aggressive reaction. In such a scenario, the model predicts that alcohol will actually *suppress aggression even below that exhibited by a sober individual*. Inasmuch as attentional capacity is unimpaired in sober persons, they can simultaneously allocate their attentional resources to both salient inhibitory cues as well as less salient provocative cues. Theoretically, the result will be a more aggressive response than that seen in their intoxicated counterparts who, due to their narrowed attentional capacity, can only attend to the more salient, “attention-grabbing” inhibitory cues.

Empirical Findings. The AAM is general in scope, and as such, it has been tested with regard to a number of alcohol-related behaviors. Specifically, following an anxiety induction manipulation, alcohol significantly decreased anxiety (even below levels exhibited by sober subjects) for persons whose attention was distracted away from stressful thoughts by performing a cognitive task. However, for those assigned to a nodistracted condition, alcohol actually increased anxiety (Josephs and Steele, 1990; Steele and Josephs, 1988). Others have shown that whereas alcohol increased intentions to engage in risky sexual behavior in the presence of permissive or highly sexually arousing cues, alcohol intoxication decreased such intentions (again, even below levels seen in sober subjects) in the presence of inhibitory or low sexually arousing cues (MacDonald, Fong, Zanna, and Martineau, 2000; T. MacDonald, G. MacDonald, Zanna, and Fong, 2000). Persons given a placebo beverage had intentions that were intermediary to the two alcohol groups. Relatedly, a recent study demonstrated that focusing on sexually arousing cues, versus inhibitory cues, fully mediated the relation between alcohol intoxication and intentions to engage in risky sex (Davis, Hendershot, George, Norris, and Heiman, 2007). Furthermore, the AAM has been useful in explaining behaviors such as disinhibited eating (Mann and Ward, 2004; Ward and Mann, 2000), the anxiety-reducing effects of cigarette smoking (Kassel and Shiffman, 1997; Kassel and Unrod, 2000), as well as drinking and driving (MacDonald, Zanna, and Fong, 1995).

These findings suggest that the AAM offers a useful conceptual framework for explaining the effect of alcohol on a wide variety of behaviors. Several established alcohol researchers have invoked the AAM, in one form or another, to explain alcohol-related aggression (Abbey, 2002; Aviles et al., 2005; Chermack and Taylor, 1995; George and Norris, 1991; Leonard, 2002; Murphy et al., 2005; Pernanen, 1976; Pihl and Peterson, 1995; Sayette, 1999; Taylor and Leonard, 1983; Testa, Livingston, and Collins, 2000; Wood and

Sher, 2002). Unfortunately, however, direct and programmatic empirical tests of the model with respect to alcohol-related aggression are actually quite scarce.

Zeichner, Pihl, Niaura, and Zacchia (1982) assessed the impact of attentional processes on intoxicated aggression. Their results indicated that forced attention on a behavioral laboratory aggression task increased aggression under alcohol whereas distraction from the task had the opposite effect. Furthermore, Leonard (1989) demonstrated that alcohol increased aggression when subjects were primed with explicit cues from a fictitious opponent's intentions to behave aggressively on a laboratory aggression task, even when those cues were followed only by the most nonaggressive behavioral responses. This suggests that intoxicated subjects did not pay attention to the implicit nonaggressive behavioral cues and instead attended to the explicit aggressive cues prior to the task. Sober subjects, on the other hand, did attend to the implicit cues as evidenced by suppressed aggression. Relatedly, a recent laboratory study found that alcohol increased aggression following a minor "trigger" provocation when that trigger was preceded by a more constant moderate provocation (Aviles et al., 2005). A follow-up study demonstrated that alcohol's effect on aggression was stronger when the minor provocative trigger stimulus was highly salient (Denson et al., 2008). The results of these two latter studies suggest that alcohol might increase aggression by focusing attention on a salient proximal trigger stimulus (Denson et al.) or by ruminating about a more distal salient provocation (Aviles et al.). Interestingly, others have shown that, similar to the effects of alcohol, physiological arousal also produces a myopic effect on attention in relation to aggressive behavior. Ward and colleagues demonstrated that elevated physiological arousal produced the greatest levels of aggression when subjects' attention was focused on aggression-promoting cues and the lowest levels of aggression when their attention was focused on aggression-inhibiting cues. Nonaroused subjects evidenced levels of aggression that were intermediary to these two extremes (Ward et al., 2008). Taken together, these findings are clearly consistent with the AAM. Three recent investigations, reviewed below, add to this growing body of evidence and represent the beginning of a programmatic research effort aimed at directly testing and expanding the AAM as it relates to alcohol-related aggression (Giancola and Corman, 2007; Phillips and Giancola, 2008).

In these investigations, aggression was measured using a laboratory task in which subjects administered and received mild electric shocks to/from a fictitious opponent (actually a computer program) under the guise of a competitive reaction-time task. Aggression was indexed as the shock intensity and duration administered by the subject to the fictitious opponent. Giancola and Corman's (2007) first study demonstrated that alcohol suppressed aggression (even below levels exhibited by a placebo group) when subjects were distracted from the provocative cues of the aggression task by simultaneously engaging in a moderately difficult cognitive task that taxed working memory abilities (see Figure 1). The distraction task involved attending to a 3×3 matrix of $2 \text{ cm} \times 2 \text{ cm}$ black squares on a white computer screen. Within each block of trials, the squares would illuminate four times in a different random sequential order. Subjects were told that they had to remember the sequence within each block and then immediately respond with the correct sequence using a computer mouse pointer. Subjects were engaged in this task for the entire duration of the aggression task which lasted approximately 15 min. Their second study was designed to assess the effect of the magnitude of difficulty (i.e., cognitive work load) of the distracting cognitive task on aggression under alcohol and placebo (again, subjects worked on the cognitive distraction task during the aggression task). Results indicated that the moderate level of distraction used in the first study (i.e., holding four elements in sequential order in working memory) best suppressed aggression. Magnitudes of less, or more, than four

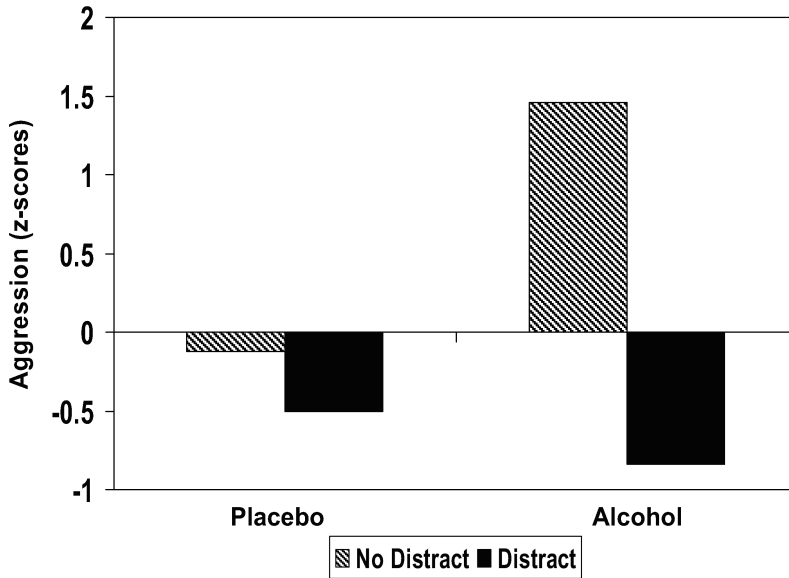


Figure 1. Study 1. The influence of distraction on aggression (shock intensity and shock duration, summed and then standardized) under alcohol and placebo. Figures were originally published in Giancola and Corman (2001) and are reprinted with permission from Wiley-Blackwell Publishing.

elements (0, 2, 6, or 8) were not successful in attenuating aggression. Magnitudes of six or eight elements increased aggression, presumably due to the negative affect elicited by the stress and other aversive emotional effects caused by the excessive difficulty of those conditions (see Figure 2).

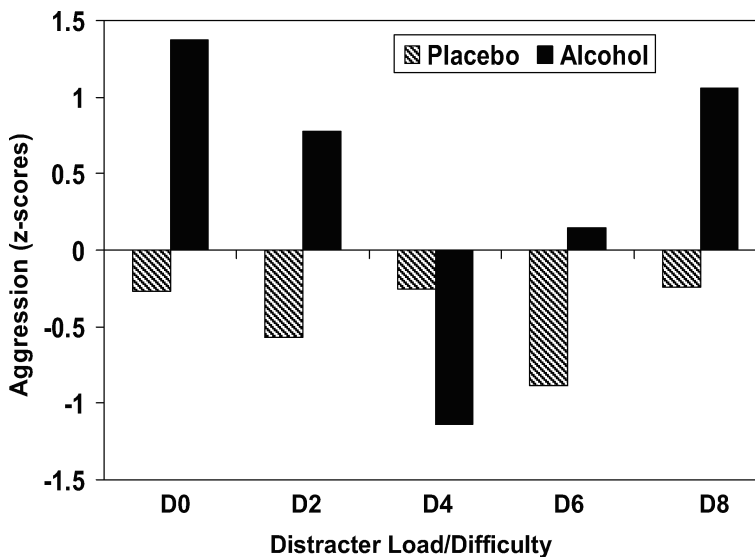


Figure 2. Study 2. The influence of different magnitudes of distracter difficulty on aggression (shock intensity and shock duration, summed and then standardized) under alcohol and placebo. Figures were originally published in Giancola and Corman (2001) and are reprinted with permission from Wiley-Blackwell Publishing.

Following-up on these first two studies, Phillips and Giancola (2008) conducted a third investigation on a group of men. Instead of using a cognitive distractor (i.e., a working memory task), Phillips and Giancola used an emotional distractor task that involved an anxiety induction manipulation. Prior to consuming any beverages, men in the anxiety induction group were informed that following the laboratory aggression task, they would have to stand before a video camera and give a speech about what they liked and disliked about their bodies. They were also told that the speech was going to be recorded and it would be evaluated by a panel of sorority women at a later date on a number of dimensions including attractiveness and dating potential. Control subjects received no such information. Anxiety induction subjects were then asked to sit and think about what they were going to say during their speech while control subjects simply sat and read magazines. This waiting period was included to give the anxiety induction subjects a chance to worry about their upcoming speech. Following the 6 min waiting period, subjects received either an alcohol or placebo beverage after which aggression was assessed. The video recordings never took place due to supposed "equipment malfunction." Consistent with previous findings, results indicated that the anxiety manipulation decreased aggression in intoxicated subjects similar to levels seen in sober individuals. Presumably, the worry elicited by the anxiety manipulation served as a distraction from the provocative cues of the aggression task, which subsequently attenuated aggression.

How Does Distraction Reduce Aggression?

As just noted, if an intoxicated individual's attention is distracted away from a provocative stimulus, the result is a reduction in aggression. This finding supports the basic tenets of the AAM. However, a question not addressed by the AAM is exactly how distraction decreases aggression. Given below is a brief description of some possible mechanisms that might underlie this relation. These variables are clearly not exhaustive yet were chosen on the basis of sound theoretical and empirical research to support their role as potential mechanisms.

Reducing Negative Affect. Briefly stated, Berkowitz's (1990, 1993) cognitive neoassociationistic theory of aggression asserts that aversive events such as provocation produce negative affect that, in turn, lead to aggressive inclinations by activating an associative network of aggression-related thoughts, feelings, memories, expressive motor reactions, and physiological responses. The implication of this theory is that aggression depends on factors that enhance the activation of the associative network to produce negative affect. Conversely, aggression should be reduced when people are exposed to factors that limit the activation of the associative network and therefore reduce negative affect. Reducing working memory capacity, through distraction, may represent one such factor that decreases the ability of the associative network of aggression-related thoughts, feelings, and memories to exert a strong influence on aggression. As a result, distraction might reduce aggression by diverting attention away from aggression-related thoughts and feelings that frequently enhance negative affect.

Reducing Anger. A more specific hypothesis based on the above negative affect prediction is that distraction reduces aggression by diverting attention away from anger-provoking cues onto nonprovocative cerebral matters such as the cognitive distractor task used in Giancola and Corman's (2007) study. Thus, distraction might reduce aggression by diverting attention away from angry affect.

Reducing Cognitive Rumination. Research has shown that ruminating about a prior provocation increases anger and aggression (Bushman, 2002; Bushman, Bonacci, Pedersen, Vasquez, and Miller, 2005). Rumination requires that individuals have adequate mental resources to focus on their thoughts and feelings (Lyubomirsky and Nolen-Hoeksema, 1995). When persons are charged with an assignment that tasks their mental resources, they will be less able to ruminate. Therefore, distraction might reduce aggression by decreasing the extent to which individuals are able to ruminate about prior provocations.

Self-Awareness. Increased self-awareness has an attenuating effect on aggression (Berman et al., in press; Carver, 1975; Scheier, Fenigstein, and Buss, 1974). Self-awareness refers to a state in which individuals focus on their thoughts, feelings, attitudes, and values – or more generally, on their conception of themselves (Carver and Scheier, 1981; Duval and Wicklund, 1972). According to theory, self-awareness often reduces aggression because one's inclination to get aggressive is compared with personal norms and standards as to what action is desirable under the given circumstances, and aggression is often judged to be “wrong” or otherwise undesirable (Carver and Scheier, 1981; Hull, 1981; Mann and Ward, 2007). Therefore, distraction from provocation might reduce aggression by allowing one's “freed-up” attention to be focused upon preexisting self-relevant thoughts about appropriate social behavior.

Empathy. By virtue of its inherent components such as compassion, sympathy, and caring for the well-being of others, empathy has been shown to be inversely related to aggression (reviewed in Bjorkqvist, Osterman, and Kaukiainen, 2000; Miller and Eisenberg, 1988). In addition, there is a large body of literature that has shown casual evidence between feelings of empathy and prosocial behavior (for review, see Batson, 1998). As with self-awareness, distraction from provocation might reduce aggression by allowing subjects' “freed-up” attention to be focused upon pre-existing empathic thoughts and feelings for a provocateur.

With regard to self-awareness and empathy, we are not arguing that distraction will “increase” or “activate” these processes. There are obviously pre-existing individual differences in these traits. It is simply our hypothesis that provocative cues will direct attention away from considering and acting upon the cognitions/affect brought about by self-awareness and empathy in persons who already possess these traits. Thus, distraction from provocation will afford these individuals the capability to focus their “freed-up” attention onto these pre-existing traits, and perhaps consider and act upon them, to reduce aggression.

Suggestions for the Prevention of Alcohol-Related Aggression

Given the basic premise of the AAM, one could argue that violence prevention requires breaking the link, through the use of distraction, between a provocative cue and an aggressive response. This could be accomplished in a number of ways. For example, envision a barroom setting where alcohol-related violence is threatening to erupt due to a verbal altercation. Removing an intoxicated individual from the provocative situation and attempting to distract the person using any one of a variety of means might ward off potential aggression. Specifically, staff members, other trained personnel, or friends might escort a provoked individual outside or to a “cool-down” room where s/he can be distracted through the use of any number of simple interventions. The cool-down room might contain a chair designed to give patrons a massage, or engage in deep-breathing exercises (with popular soft music playing in the background) so as to relax any muscles that may have become contracted

during their exposure to the provocative situation. Another possibility is that patrons would be given simple exercises designed to increase their level of mindfulness. Mindfulness refers to intentionally attending to current experiences in a nonjudgmental and accepting manner (Kabat-Zinn, 1990). Mindfulness practices have a long history in a variety of world religions and were originally intended to reduce suffering and to improve awareness, insight, and compassion for others. Within the context of the AAM, having mindfulness activities on hand would provide angered patrons with an opportunity to be removed from the provocative situation and to have their attention distracted away from the provocative cues and refocus them onto more salient nonaggressive cues. As a result, mindfulness activities can break the link between the provocative cue (i.e., verbal altercation) and an aggressive response among intoxicated persons. An additional activity in the cool-down room would involve giving patrons the option of playing a video game that is neither aggressive or arousing in content or simply engaging in a distracting conversation. The crucial point is to remove the individual from the provocative situation so that distraction can have its effect by breaking the link between a provocative stimulus and a potentially aggressive response.

Presumably, such distraction techniques would work through the underlying mechanisms we described above (i.e., reducing negative affect, anger, hostile rumination, and increasing self-awareness and empathy). Specifically, distraction interventions could target general negative affect, anger, as well as hostile rumination through muscle relaxation and deep breathing exercises. For example, mindfulness is associated with positive emotion both when measured as a trait variable (Brown and Ryan, 2003) and in response to interventions designed to increase mindfulness at the state level (Fredrickson, Cohn, Coffey, Pek, and Finkel, in press). More involved techniques would employ identifying, challenging, and restructuring dysfunctional thoughts, as well as the development of more adaptive alternative thoughts. In such cases, distraction could be achieved by having the person engage in cognitive coping techniques, strategic planning, previewing abilities, goal-setting, as well as hypothesis generation and social problem-solving skills (Beck and Freeman, 1990; Dodge and Schwartz, 1997; Kazdin, 2003; Kazdin, Siegel, and Bass, 1992; Lochman and Wells, 1996).

Distraction techniques could also be designed to increase self-awareness by highlighting self-monitoring skills. Specifically, Hull, Levenson, Young, and Sher (1983, p. 471) suggested that inappropriate alcohol-related behaviors, including aggression, could be attenuated by providing “. . . the individual with a cognitive repertoire of self-relevant encoding schemes to employ when he or she has been drinking” (e.g., “what is my behavior saying about the kind of person I am?” or “how would I react if someone were behaving this way toward me?”). In fact, Berman et al. (in press) found that a momentary manipulation designed to increase self-awareness was effective in attenuating self-injurious behavior in intoxicated men. The implication is that boosting self-awareness distracts the intoxicated person from the provocative situation because the person is forced to compare his/her impulse to behave aggressively against personal and social norms that admonish such aggressive action. An effective means of increasing self-awareness is to place people in front of a mirror (Carver and Scheier, 1978; Silvia, 2002; Wicklund and Duval, 1971). Therefore, placing mirrors in bars, especially those where alcohol-related aggression is prevalent, would be an easy and effective means of providing patrons with a salient reminder of their self-concept. Because increasing self-awareness distracts attention away from the provocative situation and onto the person’s self concept, such an intervention would likely have positive implications for reducing

alcohol-related aggression. Moreover, mindfulness-based techniques have also been shown to reduce aggression by possibly increasing self-control and self-awareness through a process of distraction from provocation (Heppner et al., 2008). Finally, by virtue of the techniques described in this section, distraction could also involve attempting to redirect a person's attention toward, hopefully, pre-existing feelings of empathy. In fact, Giancola (2003) demonstrated that acute alcohol consumption did not increase aggression in provoked persons with high levels of empathy. As such, having persons focus on their pre-existing feelings of empathy for others (for those persons who intrinsically have such feelings) may be an effective method for reducing alcohol-related aggression by redirecting an intoxicated person's attention away from a provocative situation and onto salient cues that prompt the consideration of personal standards for treating others with empathy.

Another approach would be to design interventions marked by frequent and highly salient antiviolence cues in situations where violence is often the result of alcohol intoxication (e.g., bars, sports venues, college campuses, etc.). Illustrating this latter statement are results from a study showing that intoxicated bar patrons who received a salient hand stamp that read "AIDS KILLS" were less likely to report intentions to have risky sex compared with intoxicated patrons who received a less salient hand stamp that read "SAFE SEX" or one that had a picture of a smiling face (MacDonald and Martineau et al., 2000). Following this lead, one can imagine a series of easy-to-process vivid messages designed to compete successfully with potential provocations. For example, in a sports arena, a message consisting of five words – "**Drink; Fight; Go to Jail**" – might be flashed on a screen or JumboTron at periodic intervals, echoing the state of Texas's highly successful antidrunk driving billboard campaign featuring the liberal use of large billboards with the words: "**Drink; Drive; Go to Jail.**" At sporting events, beverage vendors and servers might wear T-shirts that also read "**Drink; Fight; Go to Jail**" in large letters. Because each sporting event has many beverage vendors and servers who have access to all areas of stadiums and bars, having such employees wear such apparel would provide intoxicated fans with frequent and salient cues that would distract them from provocative stimuli. The same logic could be applied to placing coasters on tables in bars that again are printed with the same "**Drink; Fight; Go to Jail**" slogan.

A related intervention could make use of the fact that most bars and taverns have several TV screens (some restaurants and bars even have TV screens above male urinals). These TV screens could display a rotating series of brief, entertaining, and captivating (and perhaps even humorous) 15–30 s public service announcement broadcasts depicting two individuals getting into an argument that escalates into violence and then culminates in their arrest. Such vignettes could be shown periodically during regular broadcasts or at predetermined times. Ideally, these announcements would be visual, lacking any audio component, in order to maximize the likelihood of the message being received in a noisy environment. As to increase the amount of cognitive resources people divert away from a provocative situation and toward antiviolence public service announcements, these vignettes could include factors that have been shown to capture people's attentional resources. For example, physically attractive persons capture attention more so relative to persons who are average in their level of physical attractiveness (e.g., Maner, DeWall, and Gailliot, 2007). Selecting highly attractive actors for the public service announcements would strengthen their ability to serve as frequent and salient antiviolence cues that could break the link between provocation and aggression among intoxicated patrons.

These interventions represent only a few ways in which the AAM can be used to reduce alcohol-related aggression. Future work may profitably explore how other activities that involve frequent exposure to salient, nonviolent cues may divert attention away from provoking situations and, in turn, reduce alcohol-related aggression. Of particular interest would be developing distracting activities that target our five proposed mechanisms – negative affect, anger, cognitive rumination, self-awareness, and empathy – individually or in combination with one another. For example, researchers may test whether a distracting activity that boosts self-awareness would have as strong an impact on reducing alcohol-related aggression compared with a distracting activity that involved increasing both self-awareness and empathy. Thus, the AAM provides a useful framework for understanding the alcohol-aggression relation and, more importantly, how alcohol-related aggression can be attenuated.

RÉSUMÉ

L'objectif principal de cet article est d'appliquer le modèle d'allocation de l'attention (AAM; Steele & Josephs, 1990) à l'explication, ainsi que la prévention, de l'alcool liés à la violence. L'AAM soutient que la consommation d'alcool a un "myope" effet sur les capacités attentionnelles qui facilite sans doute l'agression par la réduction attention se concentrer sur les plus importants indices de provocation, qui sont naturellement présents dans des situations hostiles, plutôt plus que moins importants inhibiteur de repères. Les données sont présentées pour démontrer l'appui de l'AAM à l'égard de l'alcool liés à l'agression. Le modèle a également été élargie pour suggérer quelques intermédiaire des mécanismes qui compte mai pour combien de détourner l'attention loin de la provocation indices pourraient être impliqués dans la réduction de l'agression. Enfin, un certain nombre de suggestions concrètes sont mises de l'avant en ce qui concerne la manière dont les AAM peuvent être appliquées à la prévention de l'agression en état d'ébriété.

RESUMEN

El objetivo principal de este artículo es aplicar el modelo de asignación de atención (AAM; Steele y Josephs, 1990) a la explicación, así como la prevención, de alcohol relacionados con la violencia. La AAM sostiene que el uso del alcohol tiene un "miope" efecto sobre la capacidad de atención que facilita la agresión, presumiblemente por la reducción de Nueva York se centran en las más destacadas señales de provocation, que están naturalmente presentes en situaciones hostiles, y no menos importantes señales inhibitorias. Los datos se presentan para demostrar el apoyo a la AAM con respecto al alcohol relacionados con la agresión. El modelo también se ha ampliado a sugerir algunos mecanismos de intermediación que puede dar cuenta de cómo distraer la atención de las señales de provocation pudieran estar implicados en la reducción de la agresión. Por último, una serie de sugerencias prácticas son presentadas en relación con la forma en que la AAM se puede aplicar a la prevención de la agresión en estado de embriaguez.

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Glossary

Alcohol Myopia: A restriction of attentional capacity caused by alcohol intoxication.

Alcohol-Related Aggression: Aggression that occurs under the influence of alcohol.

Attentional Processes: Any cognitive functions that involve attention.

JumboTron: A very large screen used in large stadiums that house sporting events. Such screens are typically used to display information about a game, its players, or even for advertising purposes.

Mechanisms: Variables that better account for the relation between other variables. In the case of this article, distraction might decrease aggression through the mechanism of reduced anger.

Risk Factors: Individual difference variables that place a person at greater risk for a particular behavior such as aggression. Low empathy would be a risk factor for aggression.

Rumination: Constantly obsessing about a particular topic. In the case of this article, one might ruminate about having been insulted or provoked by another person.

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