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Apparent Motives for Aggression in the Social Context of the Bar

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Abstract

Objective—Little systematic research has focused on motivations for aggression and most of the existing research is qualitative and atheoretical. This study increases existing knowledge by using the theory of coercive actions to quantify the apparent motives of individuals involved in barroom aggression. Objectives were to examine: gender differences in the use of compliance, grievance, social identity, and excitement motives; how motives change during an aggressive encounter; and the relationship of motives to aggression severity.

Method—We analyzed 844 narrative descriptions of aggressive incidents observed in large late-night drinking venues as part of the *Safer Bars* evaluation. Trained coders rated each type of motive for the 1,507 bar patrons who engaged in aggressive acts.

Results—Women were more likely to be motivated by compliance and grievance, many in relation to unwanted sexual overtures from men; whereas men were more likely to be motivated

by social identity concerns and excitement. Aggressive acts that escalated tended to be motivated by identity or grievance, with identity motivation especially associated with more severe aggression.

Conclusions—A key factor in preventing serious aggression is to develop approaches that focus on addressing identity concerns in the escalation of aggression and defusing incidents involving grievance and identity motives before they escalate. In bars, this might include training staff to recognize and defuse identity motives and eliminating grievance-provoking situations such as crowd bottlenecks and poorly managed queues. Preventive interventions generally need to more directly address the role of identity motives, especially among men.

Keywords

aggression; environment; motives; alcohol; gender

There is little quantitative research on motives for naturally occurring aggression, especially the relationship between motives and aggression severity. More knowledge about the association of motives with the escalation of violence and aggression severity could aid in the development and improvement of prevention and intervention programming. For example, if certain types of motives are associated with the escalation of aggression, these motives should be addressed in the design of strategies to prevent violence, especially severe violence. Thus, it is surprising that so little attention is paid to motives given the health and social costs associated with violence and the substantial amount of research conducted on violence and aggression.

The theoretical framework that offers the best taxonomy for understanding motives for naturally occurring aggression is the theory of coercive actions developed by Felson and Tedeschi (1993, Tedeschi & Felson, 1994). According to this theory which is based on a social interactionist framework, aggression always has a purpose for the aggressor. That is, even “expressive” aggression (see Campbell, Muncer, McManus, & Woodhouse, 1999) has an instrumental goal for the aggressor – even if it is only the satisfaction of having a grievance recognized (Bushman & Anderson, 2001; Felson, 2005).

The theory of coercive actions originally delineated three types of motives for aggression: (1) *Compliance* – forcing others to comply with what the aggressor wants in order for the aggressor to obtain some benefit or desired outcome; (2) *Grievance* – expressing a grievance, demanding justice or punishing someone with the goal of obtaining restitution or retribution for offensive or injurious acts; and (3) *Social identity* – asserting or defending social identity (e.g., bullying to show power over others, responding aggressively in order to save face). A fourth type of motive was added later to this framework, namely, thrill seeking or aggression done for *excitement*, fun, pleasure or the thrill that it brings to the aggressor (Felson, 2004). These motives are not mutually exclusive and can occur concurrently or sequentially as part of an aggressive or coercive social encounter. For example, men interviewed about their experiences with barroom aggression (Graham & Wells, 2003) often described their aggression as initially motivated by a grievance but escalation involved defending or asserting social identity, especially if the opponent’s response to the grievance was perceived as being inadequate or inappropriate.

Licensed drinking establishments (bars, pubs, nightclubs) are common locations for aggression (Harford, Wechsler, & Muthen, 2003; Hobbs, Lister, Hadfield, Winlow, & Hall, 2000; Leonard, Quigley, & Collins, 2002) and injury (Macdonald et al., 2005; Roche, Watt, McClure, Purdie, & Green, 2001), especially among young men (Coid & Yang, 2009; Graham, Wells, & Jelley, 2002; Rolfe et al., 2006). Thus, these public settings provide an ideal natural laboratory for observational research on naturally-occurring aggression. In

terms of the theory of coercive actions, previous qualitative and ethnographic studies in bars have confirmed the presence of all four motives in aggression among young men (Benson & Archer, 2002; Graham & Wells, 2003; Rolfe, et al., 2006) with social identity and excitement motives appearing to play the most salient role. Female barroom aggression (Spence, Williams, & Gannon, 2009) has also been found to include all four motives, although social identity concerns were somewhat different and excitement was rarely a motive. There is also extensive qualitative suggesting that identity concerns are a key component of the culture among bar security staff and such concerns affect their interactions with patrons over rule enforcement, addressing rule breaking and resolving disputes (Hobbs, Hadfield, Lister, & Winlow, 2002; Hobbs, O'Brien, & Westmarland, 2007; Lister, Hobbs, Hall, & Winlow, 2000) and contribute to an overall environment in which identity-related conflicts are common. However, none of these studies of bar patrons and staff has used quantitative methods to assess the role of each type of motivation in aggressive severity or the association of these motives with gender.

In the present analyses, we use observational data on aggression in bars and nightclubs to explore apparent motives for aggressive and coercive acts. We hypothesized that identity and excitement would be more important motives for men than for women because these motives have been particularly associated with male aggression in bars and other contexts (Cohen, Nisbett, Bowdle, & Schwarz, 1996; McMurrin, Hoyte, & Jinks, 2011; Polk, 1999; Shackelford, Goetz, Buss, Euler, & Hoier, 2005).

We also hypothesized that the escalation of aggression would be more strongly associated with identity and grievance motives than with compliance and excitement motives, based on findings from qualitative research of aggression in bars (Graham & Wells, 2003; McMurrin, Jinks, Howells, & Howard, 2010). Our third related hypothesis was that identity and grievance motives would also be more strongly related to aggression severity.

Method

Participants and Procedures

We used a dataset collected as part of a randomized control evaluation of the *Safer Bars* program (Graham, Osgood, Zibrowski, Purcell, & Jelley, 2004). The dataset includes narrative descriptions and quantitative data for 1057 incidents of aggression observed during 1334 visits to 118 large capacity bars/clubs (>300 people) in the city of Toronto, Canada during 2000–2002. Observations were conducted by male-female pairs of trained observers between midnight and 3:00 A.M. on Friday and Saturday nights. Researcher-observers visited the premises as patrons and conducted observations unobtrusively. Following initial observations in 118 licensed premises, 38 premises were selected for random assignment to experimental or control conditions (26 exp, 12 control), with 18 participating in the *Safer Bars* program. The analyses control for whether the observation occurred after participation in the program.

In total 148 observers were employed on the project supervised by four field coordinators and an overall project coordinator. Applicants were screened for their ability to observe and accurately record aggressive incidents and were given about 25 hours of training delivered over two weekends (including 2 bar visits) along with a procedural manual (available at http://publish.uwo.ca/~kgraham/safer_bars.html). In addition to practical and ethical guidelines, observers received extensive training on recognizing and describing aggression, including how to spot potential problem situations. Observers were instructed not to discuss observed incidents prior to independently completing rating scales and narrative descriptions of each incident, although they were permitted to bring incidents to the attention of the partner. Narrative descriptions were completed for every aggressive incident observed as

soon as possible after leaving the bar, either the same night or the next day. The narratives include details about the facial expressions, body language, signs of intoxication and aggressive and nonaggressive behavior of each individual involved in each incident, with descriptions of some incidents running several pages. Field Coordinators combined the independent narratives by the two observers into a single description which was checked and revised by observers at the weekly meeting. Additional detail about the observation methods and other aspects of the study are provided in previous publications (Graham, Bernards, Osgood, Homel, & Purcell, 2005; Graham, et al., 2004).

Measures

Motives were rated specifically for these analyses by trained university students who were familiar with bars. The measure of severity of aggression was developed for previous analyses to evaluate the *Safer Bars* program (Graham et al., 2004). Control variables (age, height, weight and level of intoxication of aggressive patrons) were recorded by the original observers.

Motives—Behavioral indicators were identified for each of the four motives (described in detail in Graham et al., 2011) and used to rate the extent that each of the four motives appeared to play a role in aggressive acts. An initial coding protocol based on the defining features of the four types of motives was revised by five male and five female university students in an iterative process with the research team. Of the 1755 patrons who engaged in any aggressive or coercive act, including coercion used defensively, 248 (14.1%) were excluded because there was insufficient information to code motives (e.g., aggression occurred suddenly and ended quickly). Because aggression and motives can change during an incident, if either the motive or level of aggression changed for the person being coded, two sets of motive scores were made. The first set of scores applied to the person's *first* aggressive act, the second to their second act or, if there were more than two acts, to their *most aggressive act* following the first act.

The final coding protocol used a scale of 0–10 defined according to whether the motive: (0) did not play a role at all; (1–3) contributed but was a very small factor or influence; (4–6) was a fairly important factor or influence; (7–10) was the primary motive for the person's behavior. The apparent motives of all patrons who engaged in aggressive acts were rated independently by a minimum of four coders except for 125 cases used for training purposes. Mean scores across coders were computed (ratings of incidents used for training were made by consensus). Scores rated as unknown by 50% or more of raters were excluded. Because multiple raters were used for coding motives, inter-rater reliability (alpha) was calculated by applying the principals of generalizability theory (Bryk & Raudenbush, 1992; Cronbach, Gleser, Nanda, & Rajaratnam, 1972) to implement the standard definition of reliability as the proportion of variance that reflects true scores (the intercept variance, σ^2 , in the HLM analysis) rather than error (the between coder variance, σ^2 , divided by the number of raters per act).

Compliance: Compliance motivation is defined as aggression to make others comply with the aggressor's goals, for example, to obtain something from someone, to get one's way, to make someone do something, or to stop someone from doing something (Felson, 2004). Compliance motivation was relatively easy to assess and was rated according to two mutually exclusive aggression goals (i) stopping or trying to stop someone from doing something or (ii) making or trying to make someone do something that the aggressor wanted the person to do (inter-coder reliability was $r = .91$). Examples of acts rated high on compliance included clearly aggressive acts such as cutting ahead of others in line and unwanted sexual overtures (e.g., a man rubbing his groin against a woman's backside

against her will) as well as defensive acts such as pushing away someone who was making an unwanted overture and separating people from fighting.

Grievance: Grievance motivation is indicated when aggression is used in response to unfair or perceived offensive behavior, to punish someone for wrongdoing, to defend rights or to restore justice (Felson, 2004). Grievance motivation was rated using two items which were averaged for the final score: (i) aggressor believed that he/she or someone else had been *wronged* by the target; and (ii) aggressor was *offended* by something the target had done (inter-coder reliability was $r = .91$). The Pearson correlation between the 2 grievance items averaged across coders was .96. Examples of grievance-motivated acts included aggression related to seeing others let into the premises ahead of the line and perceived violations of personal space.

Identity: Eight indicators of identity motives were averaged to form an overall identity motive score: (i) showing others how important he or she is (corrected item-total correlation = .65); (ii) showing others how tough he/she is (.64); (iii) showing others that he/she is a powerful person or has power over someone else/other people (.84); (iv) dominating the other person/other people (.61); (v) asserting status by impressing others (.43); (vi) showing that he/she is the person in charge (.50); (vii) showing how inferior the other person/other people were (e.g., belittling, demeaning or putting down the other person) (.58); (viii) actions to save face (.32). Cronbach's alpha for the scale created from the averaged items = .84. Inter-coder reliability on the overall identity score was .85. Typical examples where the person scored high on identity included male patrons challenging bar staff to fight and male-to-male aggression involving posturing, verbal aggression and brawls.

Excitement: Excitement motivation was measured using four indicators that the person was motivated to act in an aggressive way: (i) for fun (corrected item-total correlation = .99); (ii) for excitement (.93); (iii) for his or her own enjoyment (at the expense of another) (.99); (iv) to annoy others for his/her own pleasure (.61). Cronbach's alpha for the scale = .96; inter-coder reliability = .94. Examples of aggressive acts scoring high on excitement motivation included teasing that clearly had a negative effect on the target, horseplay that adversely affected targets or third parties (e.g., rowdiness where strangers were being bumped repeatedly and intentionally), sexual harassment, and unwanted sexual or social overtures.

Severity of aggression and defensive intent—An aggression severity score was developed as part of previous analyses of these data (see Graham, Tremblay, et al., 2006). Each person's behavior was rated by two members of the research team on level of harm and intent for the *most aggressive act* done by the person, with harm level rated as: (0) *no harm*, (1) *minor nonphysical aggression* (e.g., angry look, mild angry words), (2) *moderate-severe nonphysical aggression* (e.g., yelling, shouting, threatening), (3) *minor physical aggression* (e.g., light pushing, unwanted touching), (4) *minor physical aggression with moderate-severe nonphysical*, (5) *moderate physical aggression* (e.g., pushing/shoving, forceful grabbing); (6) *moderate physical aggression with moderate-severe nonphysical*; and (7) *severe physical aggression* (e.g., acts causing physical pain such as punching, kicking, use of a weapon). To take into consideration that aggression involves intent as well as harm (Baron & Richardson, 1994), intent was rated for each person as: (0) *no intent* (e.g., harm clearly accidental such as accidentally bumping into someone); (1) *defensive intent* (aggressive act involved no more force than necessary to defend oneself – e.g., pushing someone away or grabbing someone forcefully to stop them from punching someone else); (2) *probable intent* (e.g., actor may have been unaware of the harm due to intoxication or other factors, may have believed that his or her aggression was defensive, or may have intended aggression as a joke); (3) *definite intent* (harm clearly intended and not defensive).

An overall severity of aggression score was created by combining harm ratings with intent ratings to provide a score from 0 (no harm or no intent) to 21 (severe aggression with definite intent) (inter-rater = .85). The present analyses include all persons with non-zero scores.

Control variables—A number of variables that may affect both motives and aggression severity were included as control variables in the multivariate analyses. Age (in years), height (in inches) and weight (in pounds) were estimated independently by the researcher-observers for each patron in each incident. Observers also rated intoxication (based on criteria outlined by Teplin & Lutz, 1985) of each patron in each incident from (0) totally sober to (9) falling down drunk. Pearson correlation for inter-observer agreement was .84 for age, .75 for height and .79 for weight, and .66 for intoxication. We also controlled for whether the incident occurred after a bar had received the *Safer Bars* program (1 = visit occurred after program, 0 = else).

Analysis Plan

The current analyses focus on motive scores at two levels of data, acts and persons, taking into account the nesting of acts of aggression within persons, incidents, visits and bars. Therefore, all analyses (except simple correlations) involved 4-level or 5-level multi-level regression models estimated using the MLwiN software, using full maximum likelihood estimation via iterative generalized least squares (Rasbash, Steele, Browne, & Goldstein, 2009). Most analyses involved four-level models, where the person was the focus, using the maximum score on each motive for persons who were scored for two acts. Five-level analyses were used when acts were the focus (i.e., comparisons of motives for first and second acts).

Results

Descriptive Information about Incidents

After excluding incidents where motives could not be coded or *only* staff were aggressive, 844 separate incidents were included, involving 1507 patrons (1055 men and 452 women), of whom 1139 (778 men and 361 women) were coded for one act and 368 (277 men and 91 women) were coded for two acts. Of the 1507 patrons included in the analyses, 38.2% involved aggression by a man toward a male target, 24.4% by a man toward a female target, 7.4% by a man toward other target categories (male and female targets, no specific target, gender of target unknown), 21.6% by a woman toward a male target, 5.6% by a woman toward a female target and 2.8% by a woman toward other target categories. Women were much more likely than men to be rated as using only *defensive intent* (40.7% vs. 12.3%); thus, the proportion of female aggressors was only 22.5% when patrons with defensive intent were excluded. The association of gender with defensive intent and motives is described in more detail below.

For both men and women, compliance was negatively correlated with all other motives while grievance was positively associated with identity and negatively associated with excitement (see Table 1). Identity was significantly and positively associated with excitement for women but negatively associated for men.

Gender Differences in Motives

As hypothesized, men scored higher on identity and excitement, while women scored higher than did men on compliance and grievance (all significant at $p < .001$, see Tables 1 and 2 and Table S1 in online Supplementary material). Male aggression was also significantly more severe (mean = 8.21 for men (SD = 5.14) vs. 6.22 (SD = 4.99) for women, $p < .001$),

with severity varying by target's gender (male-to-male mean severity = 8.98, SD = 5.77; male-to-female = 7.72, SD = 4.05; female-to-male = 5.70, SD = 4.70; female-to-female = 8.19; SD = 5.91).

Women were more likely to have compliance as a primary motivation (i.e. score >6 on compliance) (52.4% of women vs. 30.8% of men). Compliance motive was linked to defensive intent, with defensive intent found for 37.5% of men and 68.7% of women who had compliance as a primary motive, but only for 1.6% of men and 11.5% of women whose primary motive was not compliance (i.e. score \leq 6 on compliance). Defensive intent also varied by gender combination of the aggressor and target, with 52.4% of men who were engaged in compliance-motivated aggression toward another man judged as having defensive intent versus 15.0% for male compliance-related aggression toward women, 73.7% for women toward men and 37.9% for women toward another woman.

Association of Motives with Escalation

Of those engaging in two or more aggressive acts, the later acts were more aggressive than first acts for 68.7% of men and 55.3% of women, at the same level of aggression for 22.2% of men and 29.4% of women, and less aggressive for 9.1% of men and 15.3% of women. Thus, almost all of those scored for two or more acts either escalated their aggression or engaged in repeated acts of aggression at the same level. As shown in Figure 1, Table 3 and Supplementary Table S2, men and women scored for two acts had significantly higher initial ratings on identity motive (bars with vertical stripes in Figure 1) compared to those scored for only one act (solid bars), and men had significantly higher initial scores on grievance. Comparing second acts (horizontal stripes) to first acts (vertical stripes) among persons scored for two acts, we found that scores on compliance were significantly lower for the second act for men, and scores on identity were significantly higher on the second act for both men and women. Analyses excluding the small number of individuals who became less aggressive produced similar findings (analyses not shown). Differences in coefficients for only one act versus first act (of two) and for first versus second act were compared for men and women (shown in Supplementary Table S3). The only significant gender difference was that the increase in identity score from first to second act was greater for men than for women.

Association of Motives with Severity of Aggression

Table 4 shows the coefficients from multi-level bivariate linear regression of severity on each motive with separate models for men and women and for the first or only act (includes entire sample) and for the second act (includes only those scored on a second act) (full model shown in Supplementary Table S4). Compliance motivation was significantly and negatively associated with severity in all analyses; grievance motivation was positively associated with severity (significant for both acts for women but for only the second act for men). Identity motivation had a strong and significant positive association with severity for all acts for both men and women. The association of excitement motivation with severity varied by gender and order of acts. For first/only act, excitement was positively associated with severity for women but was not associated with severity for men. For second act, there was a significant negative association for men but no association for women. In terms of gender differences, the negative relationship between compliance and severity was significantly stronger for women than for men for the first act, and the gender difference in the relationship between severity and excitement motive on the first/only act was also significant (shown in Supplementary Table S5).

Table 5 shows the regression coefficients for multi-level multivariate analyses regressing severity on all four motives scores (using maximum score for first and second act for those

who engaged in 2 acts) separately for men and women (full HLM model is shown in Supplementary Table S6). The first model includes only the four motives while the second model includes these motives controlling for age, level of intoxication, height, weight and whether the incident occurred in a bar after the bar had participated in the *Safer Bars* program. The most striking finding is that identity scores were significantly and strongly associated with severity in all models for both men and women. Higher scores on other motives were also significantly and positively associated with aggression severity in the multivariate models, except that compliance was nonsignificant for women in the second model (i.e., including control variables). The overall models also indicate that, taken together, motives are generally strongly associated with aggression severity, with substantial variance explained (Pseudo $R^2 = .27$ for men and $.31$ for women). Although age, intoxication and weight showed some significant relationships with aggression severity, inclusion of these variables in the models did not change the relationships of severity with motives and did not increase the Pseudo R^2 substantially. None of the coefficients differed significantly for men and women (see Supplementary Table S7).

Discussion

The present research applied the theory of coercive actions to understanding the escalation and severity of aggression occurring in the context of licensed premises. This approach provides new insight into motives for aggression and how these motives are different for men and women. We found gender differences in the nature, frequency and motives for aggression. Specifically, 22.5% of aggressive patrons were female (excluding those using only defensive intent) which is almost identical to the proportion (23%) of female offenders found by Krienert and Vandiver (2009) in their analyses of data from the FBI National Incident-Based Reporting System on assaults committed in a bar setting. Consistent with previous research suggesting that men engage in aggression primarily with other men (Graham, et al., 2002), especially in bars (Dyck, 1980; Graham & Wells, 2001; Homel & Clark, 1994; Roberts, 2007), male-to-male aggression was the most common gender combination. The second most frequent combination was male-female, perhaps reflecting the frequency of unwanted sexual overtures in the highly sexualized dance clubs included in the present study (Purcell & Graham, 2005).

As hypothesized, male aggression was more likely to involve identity and excitement motives while women scored higher than men on compliance and grievance motives. The larger role of identity issues for men is consistent with previous research on male aggression in bars and elsewhere (Graham & Wells, 2003; Luckenbill, 1977; McMurrin et al., 2010; 2011; Wells, Graham, & Tremblay, 2009). Women's higher level of compliance and grievance motivation and their largely defensive intent likely reflect the substantial proportion of coercive acts by women in bars done to stop unwanted, persistent or invasive social/sexual overtures (Graham, Wells, Bernards & Dennison, 2010).

The difference in motives for men and women has potential implications for understanding gender differences in aggression more generally. That is, the finding that men are more likely to be motivated by identity concerns and women by compliance may apply to other contexts such as aggression between intimate partners. If so, it further challenges the apparent "gender symmetry" of intimate partner violence (Weston, Temple, & Marshall, 2005) in that comparable aggressive behaviors by men and women may not necessarily be comparable in terms of their motives and, consequently, their likelihood of escalation.

In accordance with our second hypotheses and consistent with the literature on the relationship between insults and ego threat (Cohen et al., 1996; Holmes, 1971; Metts & Cupach, 1989; Walker & Bright, 2009), grievance and identity motives were positively

correlated for both men and women and both were linked to escalation. Initial identity motivation might make the person more likely to engage in further, possibly more severe, acts of aggression because their strong identity motivation reflects a situation where the person is already highly invested in winning or besting the other person (Walker & Bright, 2009) and therefore less likely than those with compliance or excitement motives to back down. Those initially motivated by grievance may also be more inclined to become more aggressive because they feel more justified for their actions (than do those with other motives), especially if the person who caused the grievance is perceived as failing to respond appropriately to the grievant (Benson & Archer, 2002; Graham & Wells, 2003; Luckenbill, 1977).

The finding that identity concerns increase as the incident progresses is consistent with previous qualitative research (Graham & Wells, 2003) suggesting that aggression might begin with other motives but identity concerns become more salient as the incident continues. When compliance was the primary motive, however, the other motives were less likely to be involved, possibly because compliance is primarily focused on an end goal; whereas, other motives often at least partly include additional expressive goals such as expressing a grievance or asserting identity (Felson & Tedeschi, 1993, Tedeschi & Felson, 1994).

Finally, in terms of motives associated with aggression severity, although severity was positively associated with higher scores on all motives in the multivariate models, identity motivation had the strongest association with severity by far. This finding further reinforces previous research suggesting the crucial role of identity concerns in the escalation of male-to-male aggression in bars (Benson & Archer, 2002; Dyck, 1980; Graham & Homel, 2008; Graham & Wells, 2003) and other social contexts (Cohen, et al., 1996; McMurrin, et al., 2011; Polk, 1999; Shackelford, Goetz, Buss, Euler, & Hoier, 2005), as well as among women in bars (Spence et al., 2009).

Although previous research has recognized the importance of identity concerns, most previous research has framed identity-motivated aggression as reactive face-saving in response to insults or other factors that made the person feel putdown or embarrassed (Baumeister, Smart, & Boden, 1996; Brown, 1968; Felson, 1978; Holmes, 1971; Metts & Cupach, 1989; Walker & Bright, 2009). By contrast, the identity motives scale in the present analyses was comprised mainly of indicators of *asserting identity*, suggesting that asserting not defending identity is the primary consideration in much of barroom aggression and potentially in other contexts.

The present findings also demonstrate that identity motives are predictive of aggression *severity* and not just the occurrence of aggression. Although the importance of impression management in aggression has been recognized by many scholars (Tedeschi & Felson, 1994), previous literature has mostly addressed identity motive as predictive of *whether* the person will engage in aggression, not as a predictor of *severity*.

Although not the focus of the present research, the relationships of the control variables with severity are worth noting. Intoxication was a significant predictor of aggression severity, as found in previous analyses of these data (Graham, Osgood, Wells, & Stockwell, 2006), but this relationship remained significant only for women when motives and other variables were included in the model. Thus, it may be that the expected relationship between intoxication and aggression severity was not found for men because the relationship is mediated by motives such as identity (i.e., intoxication may be linked to severity through its effect on strengthen identity motives for men). For women, on the other hand, intoxication may embolden them to react more aggressively to unwanted overtures while not necessarily

changing their motive of compliance, for example. Body weight was associated with severity but only for men. This is consistent with recent research findings that heavier men but not women administered greater intensity and duration of shocks to a fictitious opponent in an experiment on the effects of alcohol on aggression (Dewall, Bushman, Giancola, & Webster, 2010), perhaps reflecting the greater physicality of male aggression. Younger age was also associated with greater severity of aggression, significant only for men, underscoring the high risk of aggression among young men in drinking establishments (Graham & Homel, 2008) and other contexts (United Nations Office on Drugs and Crime (UNODC), 2011).

Limitations

All forms of measurement have limitations and strengths. In this study, motives were assessed based on descriptions of people's verbal and physical behavior rather than self-report; therefore, we cannot know the actor's actual intentions. However, attributions of motives by external observers are not necessarily less accurate than attributions made by the actors themselves. In particular, Nisbett and Wilson (1977) argued that people do not necessarily have insight into their own internal cognitive processes; rather they base their attributions on implicit causal theories and plausible explanations. Additionally, people may be dishonest about their true motives, especially if revealing their motives would be socially undesirable. In addition, measures based on the judgment by observers of *apparent* motives are important in their own right because it is through these judgments that people manage social interactions. That is, people cannot know another person's actual motives but must base their response to a person on apparent motives evident from the person's words, actions, facial expressions and body language (Heider, 1958). For example, if the aggressor is perceived to be motivated by grievance this may elicit a different response (e.g., an apology for causing the grievance) than if the person appears to be motivated by asserting identity (which would be more likely to elicit identity motives in response). Therefore, even if apparent motives rated in the present study are only partly valid reflections of the rater's own perceptions of his/her motives, they likely reflect the judgments that would be made by other actors in the social context.

Other limitations include that motives could not be scored for persons who were not observed for a sufficient time to make assessments of motives (e.g., incidents where observers did not see preliminary behaviors leading to the incident) that the findings are based on observations in a single city. However, the city where the study was conducted (Toronto) is one of the most multi-ethnic cities in the world, and the venues visited were heterogeneous in both ethnicity and gender orientation; nevertheless, cultures vary in both drinking and aggression and the results cannot be assumed to apply across all cultures. Therefore, the generalizability of these findings needs to be tested directly by research in other settings and cultures.

Research Implications

The novel approach taken in the present study suggests a number of implications for future research. First, the approach of quantifying variables from qualitative observations using this theoretical framework can be applied to the study of aggression in other contexts where aggression can be publicly observed, such as sports arenas and school yards. Although collecting sufficient observations for this type of aggression is labor intensive, this approach has the benefit of avoiding any bias from self-report and has better ecological validity than most laboratory research.

Second, a similar approach using the theory of coercive acts could be applied to self-report data to explore the extent that findings from self-reported perceptions of motivations

correspond to the present results based on systematic observation. As noted under limitations, the ratings used in the present study based on the perspective of an observer may have produced different results than would have been obtained had actors rated their own motives. Therefore, an important direction for future research would be to use self-report data to explore gender differences in motives and associations between motives and aggression escalation and severity.

Third, although the theory of coercive acts was first introduced about 20 years ago, its potential for providing a better understanding of aggressive behavior has not been fully realized. The present findings suggest that motives as defined by the theory of coercive acts provide an important new direction for increasing our understanding of aggressive behavior, especially for understanding how aggression escalates. Although previous research has explored the role of face-saving and reputation in aggression, these studies have not examined the relative role of face-saving versus other motives in aggression severity. Thus, an examination of these motives in various contexts, including intimate partner and other forms of violence, may provide additional useful insight into how to prevent severe violence and the role played by motives, gender and other factors in the escalation of violence.

Clinical and Policy Implications

The role of social identity concerns in the escalation and severity of aggression warrants more attention in treatment and policy initiatives. Even though the present research was based on a single type of social context, the findings are important because bars are one of the primary arenas where young adult men play out status scripts leading to physical aggression (Leonard, et al., 2002; Wells, et al., 2009). These results suggest that aggression motivated by social identity concerns poses the greatest risk for escalation and severe aggression. Therefore, it is especially important that licensed premises develop policies and procedures for reducing risks associated with identity-focused aggression. This includes appropriate hiring and training of bar staff because they are the key persons to respond to aggression in bars and their responses influence the outcome of incidents (Graham & Homel, 2008). Specifically, staff need to be trained in recognizing and defusing identity conflicts among patrons before these conflicts have a chance to escalate. They also need to be trained to ensure that their own identity concerns do not exacerbate the conflict (Winlow, Hobbs, Lister, & Hadfield, 2001).

Prevention in bars should also focus on grievance motives because these were also associated with the escalation and severity of aggression as well as being positively associated with identity motives. The barroom environment itself can be structured to reduce situations likely to provoke grievance-related aggression, such as bottlenecks and poorly managed queues that can lead to accidental bumps, spilled drinks and other sources of grievance (Graham & Homel, 2008). In addition, staff need to be trained to address grievance-related aggression quickly and calmly before identity concerns related to the grievance emerge and the situation escalates. For example, if bumping between patrons lead to a spilled drink, it would be a reasonable policy for staff to respond quickly by replacing the drink before the grievance leads to a conflict between the patrons involved.

Although sexual aggression was not the specific focus of this paper, the gender differences in motives, specifically the high scores on compliance motives for women reflecting many incidents in which women were mostly trying to stop unwanted sexual overtures from men, reinforce previous conclusions that women in bars are routinely subjected to sexual harassment (Graham et al., 2010). Therefore, at least some of the aggression in bars can be eliminated by creating an environment that discourages invasive and aggressive sexual overtures while still maintaining an exciting venue where young people can explore their sexuality and meet potential partners.

The study also has implications that extend beyond the barroom environment. As noted above, if the gender differences in motives found in the current study generalize to other social contexts, this knowledge could be used to enhance violence prevention generally. In particular, violence by men in other settings, including men's aggression at sporting events as well as intimate partner violence in the home, may be motivated by identity concerns. Therefore, addressing these concerns among men may be a promising direction for prevention and treatment, in addition to issues routinely covered in current programs such as anger management and the unacceptability of violence toward women. More generally, prevention programs can challenge traditional norms about male identity, such as having to be strong, tough, dominant and powerful, by supporting men who choose to reject these norms (see Harris III & Edwards, 2010).

In conclusion, although the current study focused on a single social environment, the findings point to the importance of examining motives for aggression generally in order to better understand gender differences in aggression and the circumstances under which aggression is likely to escalate. The theory of coercive actions provides a useful framework for understanding the relationships between motivations for aggression, gender, the process of aggression and aggression severity.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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References

- Baron, RA.; Richardson, DR. Human aggression. 2nd ed.. New York: Plenum; 1994.
- Baumeister RF, Smart L, Boden JM. Relation of threatened egotism to violence and aggression: The dark side of high self-esteem. *Psychological Review*. 1996; 103:5–33. [PubMed: 8650299]
- Benson D, Archer J. An ethnographic study of sources of conflict between young men in the context of the night out. *Psychology, Evolution & Gender*. 2002; 4:3–30.
- Brown BR. The effects of need to maintain face on interpersonal bargaining. *Journal of Experimental Social Psychology*. 1968; 4:107–122.
- Bryk, A.; Raudenbush, SW. Hierarchical linear models. Newbury Park, CA: Sage; 1992.
- Bushman BJ, Anderson CA. Is it time to pull the plug on the hostile versus instrumental aggression dichotomy? *Psychological Review*. 2001; 28:273–279. [PubMed: 11212630]
- Campbell A, Muncer S, McManus IC, Woodhouse D. Instrumental and expressive representations of aggression: One scale or two? *Aggressive Behavior*. 1999; 25:435–444.
- Cohen D, Nisbett RE, Bowdle BF, Schwarz N. Insult, aggression and the Southern culture of honor: An "experimental ethnography". *Journal of Personality and Social Psychology*. 1996; 70:945–960. [PubMed: 8656339]
- Coid J, Yang M. Violence and delayed social independence among young adult British men. *Social Psychiatry & Psychiatric Epidemiology*. 2009; 45:301–308. [PubMed: 19504032]

- Cronbach, L.J.; Gleser, G.C.; Nanda, H.; Rajaratnam, N. The generalizability of behavioral measurements. New York: Wiley; 1972.
- Dewall CN, Bushman BJ, Giancola PR, Webster GD. The big, the bad, and boozed-up: Weight moderates the effect of alcohol on aggression. *Journal of Experimental Social Psychology*. 2010; 46:619–623. [PubMed: 20526451]
- Dyck N. Booze, barrooms and scrapping: masculinity and violence in a western Canadian town. *Canadian Journal of Anthropology*. 1980; 1:191–198.
- Felson RB. Aggression as impression management. *Social Psychology*. 1978; 41:205–213.
- Felson, RB. A rational-choice approach to violence. In: Zahn, MA.; Brownstein, HH.; Jackson, SL., editors. *Violence: From theory to research*. Cincinnati, OH: Anderson Publishing; 2004. p. 71-90.
- Felson, RB. Violence as instrumental behavior. In: Kelloway, EK.; Barling, J.; Hurrell, JJ., editors. *Handbook of workplace violence*. Thousand Oaks, CA: Sage Publication; 2005. p. 7-28.
- Felson, RB.; Tedeschi, JT. *Aggression and violence: Social interactionist perspectives*. Washington, D.C.: American Psychological Association; 1993.
- Graham K, Bernards S, Osgood DW, Homel R, Purcell J. Guardians and handlers: The role of bar staff in preventing and managing aggression. *Addiction*. 2005; 100:755–766. [PubMed: 15918806]
- Graham K, Bernards S, Wells S, Osgood DW, Abbey A, Felson RB, Saltz RF. Behavioural indicators of motives for barroom aggression: Implications for preventing bar violence. *Drug and Alcohol Review*. 2011; 30:544–563.
- Graham, K.; Homel, R. *Raising the bar: Preventing aggression in and around bars, pubs and clubs*. Routledge; 2008.
- Graham K, Osgood DW, Wells S, Stockwell T. To what extent is intoxication associated with aggression in bars? A multilevel analysis. *Journal of Studies on Alcohol*. 2006; 67:382–390. [PubMed: 16608147]
- Graham K, Osgood DW, Zibrowski E, Purcell J, Gliksman L, Leonard K, et al. The effect of the Safer Bars programme on physical aggression in bars: Results of a randomized controlled trial. *Drug and Alcohol Review*. 2004; 23:31–41. [PubMed: 14965885]
- Graham K, Tremblay PF, Wells S, Pernanen K, Purcell J, Jelley J. Harm, intent, and the nature of aggressive behavior. Measuring naturally occurring aggression in barroom settings. *Assessment*. 2006; 13:280–296. [PubMed: 16880280]
- Graham K, Wells S. Aggression among young adults in the social context of the bar. *Addiction Research and Theory*. 2001; 9:193–219.
- Graham K, Wells S. "Somebody's gonna get their head kicked in tonight!" Aggression among young males in bars -- A question of values? *British Journal of Criminology*. 2003; 43:546–566.
- Graham K, Wells S, Bernards S, Dennison S. "Yes, I do but not with you" - Qualitative analyses of sexual/romantic overture-related aggression in bars and clubs. *Contemporary Drug Problems*. 2010; 37:197–240.
- Graham K, Wells S, Jelley J. The social context of physical aggression among adults. *Journal of Interpersonal Violence*. 2002; 17:64–83.
- Harford TC, Wechsler H, Muthen BO. Alcohol-related aggression and drinking at off-campus parties and bars: A national study of current drinkers in college. *Journal of Studies on Alcohol*. 2003; 64:704–711. [PubMed: 14572193]
- Harris F III, Edwards KE. College men's experience as men: Findings and implications from two grounded theory studies. *Journal of Student Affairs Research and Practice*. 2010; 47:43–62.
- Heider, F. *The psychology of interpersonal relations*. New York: Wiley; 1958.
- Hobbs D, Hadfield P, Lister S, Winlow S. 'Door loor' The art and economics of intimidation. *British Journal of Criminology*. 2002; 42:352–370.
- Hobbs D, Lister S, Hadfield P, Winlow S, Hall S. Receiving shadows: Governance and liminality in the night-time economy. *British Journal of Sociology*. 2000; 51:701–717. [PubMed: 11140891]
- Hobbs D, O'Brien K, Westmarland L. Connecting the gendered door: Women, violence and doorwork. *British Journal of Sociology*. 2007; 58:21–38. [PubMed: 17343636]
- Holmes DS. Compensation for ego threat: Two experiments. *Journal of Personality and Social Psychology*. 1971; 18:234–237. [PubMed: 5578260]

- Hommel, R.; Clark, J. The prediction and prevention of violence in pubs and clubs. In: Smith, M.; Cornish, D., editors. *Theory for Practice in Situational Crime Prevention*. Crime Prevention Studies. Vol. 3. Monsey, N.Y.: Criminal Justice Press; 1994. p. 1-46.
- Krienert JL, Vandiver DM. Assaultive behavior in bars: A gendered comparison. *Violence and Victims*. 2009; 24:232-247. [PubMed: 19459402]
- Leonard KE, Quigley BM, Collins RL. Physical aggression in the lives of young adults: Prevalence, location, and severity among college and community samples. *Journal of Interpersonal Violence*. 2002; 17:533-550.
- Lister S, Hobbs D, Hall S, Winlow S. Violence in the night-time economy. *Bouncers: The reporting, recording and prosecution of assaults*. *Policing and Society*. 2000; 10:383-402.
- Luckenbill DF. Criminal homicide as a situated transaction. *Social Problems*. 1977; 25:176-186.
- Macdonald S, Cherpitel CJ, Borges G, DeSouza A, Giesbrecht N, Stockwell T. The criteria for causation of alcohol in violent injuries based on emergency room data from six countries. *Addictive Behaviors*. 2005; 30:103-113. [PubMed: 15561452]
- McMurran M, Hoyte H, Jinks M. Triggers for alcohol-related violence in young male offenders. *Legal and Criminological Psychology*. 2011 Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.2044-8333.2011.02010.x/pdf>.
- McMurran M, Jinks M, Howells K, Howard RC. Alcohol-related violence defined by ultimate goals: A qualitative analysis of the features of three different types of violence by intoxicated young male offenders. *Aggressive Behavior*. 2010; 35:1-13.
- Metts S, Cupach WR. Situational influence on the use of remedial strategies in embarrassing predicaments. *Communication Monographs*. 1989; 56:151-162.
- Nisbett RE, Wilson TD. Telling more than we can know: Verbal reports on mental processes. *Psychological Review*. 1977; 84:231-259.
- Polk K. Males and honor contest violence. *Homicide Studies*. 1999; 3:6-29.
- Purcell J, Graham K. A typology of Toronto nightclubs at the turn of the millennium. *Contemporary Drug Problems*. 2005; 32:131-167.
- Rasbash, J.; Steele, F.; Browne, WJ.; Goldstein, H. *A User's Guide to MLwiN, Version 2.10*. Bristol, UK: Centre for Multilevel Modelling, University of Bristol; 2009.
- Roberts JC. Barroom aggression in Hoboken, New Jersey: Don't blame the bouncers? *Journal of Drug Education*. 2007; 37:429-445. [PubMed: 18351181]
- Roche AM, Watt K, McClure R, Purdie DM, Green D. Injury and alcohol: A hospital emergency department study. *Drug and Alcohol Review*. 2001; 20:155-166.
- Rolfe A, Dalton S, Krishnan M, Orford J, Mehdikhani M, Cawley J, Ferrins-Brown M. Alcohol, gender, aggression and violence: Findings from the Birmingham Untreated Heavy Drinkers Project. *Journal of Substance Use*. 2006; 11:343-358.
- Shackelford TK, Goetz AT, Buss DM, Euler HA, Hoier S. When we hurt the ones we love: Predicting violence against women from men's mate retention. *Personal Relationships*. 2005; 12:447-463.
- Spence CE, Williams SE, Gannon TA. 'It's your round!' - female aggression in licensed premises. *Psychology, Crime & Law*. 2009; 15:269-284.
- Tedeschi, JT.; Felson, RB. *Violence, aggression, & coercive actions*. Washington, DC: American Psychological Association; 1994.
- Teplin L, Lutz GW. Measuring alcohol intoxication: The development, reliability and validity of an observational instrument. *Journal of Studies on Alcohol*. 1985; 46:459-466. [PubMed: 4087907]
- United Nations Office on Drugs and Crime (UNODC). *Global study on homicide: Trends, contexts, data*. 2011. Retrieved from http://www.unodc.org/documents/data-and-analysis/statistics/Homicide/Globa_study_on_homicide_2011_web.pdf
- Walker JS, Bright JA. False inflated self-esteem and violence; A systematic review and cognitive model. *Journal of Forensic Psychiatry & Psychology*. 2009; 20:1-32.
- Wells S, Graham K, Tremblay PF. "Every male in there is your competition": Young men's perceptions regarding the role of the drinking setting in male-to-male barroom aggression. *Substance Use & Misuse*. 2009; 44:1434-1462. [PubMed: 19938926]

- Weston R, Temple JR, Marshall LL. Gender symmetry and asymmetry in violent relationships; Patterns of mutuality among racially diverse women. *Sex Roles*. 2005; 53:553–571.
- Winlow S, Hobbs D, Lister S, Hadfield P. Get ready to duck: Bouncers and the realities of ethnographic research on violent groups. *British Journal of Criminology*. 2001; 41:536–548.

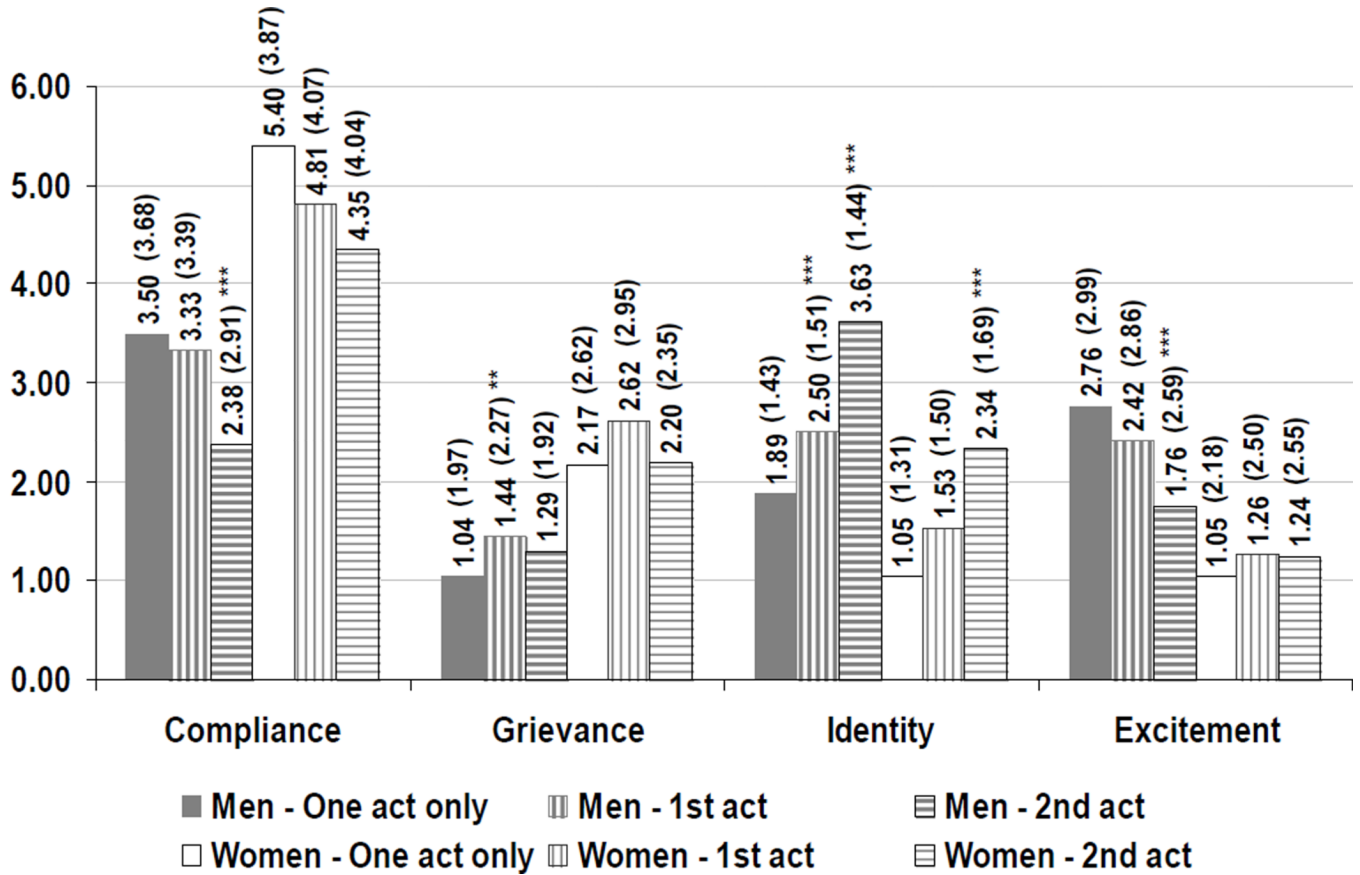


Figure 1.
 Average Score for each Motive by Gender and whether Motive Was for Only Act done by the Person, First of Two Acts or Second Act
 *p < .05, **p < .01, ***p < .001;
 Note: Standard deviation shown in parentheses. Asterisks on vertical striped bar indicates that scores on that motive for first act among men and women who engaged in more than one aggressive/coercive act were significantly different from scores on that motive for persons who engaged in only one act (solid bar); on the horizontal striped bar indicates that scores for second act on that motive were significantly different from scores on the first act (vertical striped bar)

Table 1
 Summary of Intercorrelations, Means and Standard Deviations for Scores on Each Motive by Gender

	Compliance	Grievance	Identity	Excitement	Mean	SD
Compliance	---	-.08*	-.32**	-.41**	3.64	(3.60)
Grievance	-.21**	---	.19**	-.49**	1.28	(2.15)
Identity	-.51**	.11*	---	-.08*	2.34	(1.63)
Excitement	-.51**	-.41**	.17**	---	2.72	(2.98)
Mean	5.41	2.37	1.30	1.12		
SD	(3.88)	(2.70)	(1.48)	(2.30)		

Note: Intercorrelations for men (N=1055) are shown above the diagonal, for women (N=452) below the diagonal. Means and standard deviations for men are shown in the vertical columns and for women in the horizontal rows. For individuals who were scored on more than one act, the highest score on each motive across acts was used. For all scales, higher scores are indicative of that motive playing a greater role in the act.

* p < .05,

** p < .01,

*** p < .001

Table 2

Regression Coefficients and Significance Levels of each Motive Score Regressed on Gender

	b	SE	z	p
Compliance	-2.13	0.20	-10.65	0.000
Grievance	-1.17	0.14	-8.63	0.000
Identity	1.09	0.09	12.29	0.000
Excitement	2.26	0.14	16.27	0.000

Note: male=1, female=0.

Table 3

Unstandardized Coefficients for Motives Scores Regressed on (i) First Act^a versus Only Act (for those scored on only one act) and (ii) First Act versus Second Act^a by Gender

	b	SE	z	p	b	SE	z	p
	Compliance				Grievance			
Men								
First act vs. only	-0.10	0.26	-0.40	0.688	0.44	0.15	2.94	0.003
First vs. second	-0.90	0.21	-4.31	0.000	-0.14	0.14	-1.04	0.300
Women								
First act vs. only	-0.60	0.43	-1.41	0.159	0.43	0.32	1.34	0.180
First vs. second	-0.40	0.31	-1.28	0.201	-0.37	0.28	-1.32	0.188
	Identity				Excitement			
Men								
First act vs. only	0.50	0.10	4.76	0.000	-0.16	0.18	-0.89	0.375
First vs. second	1.14	0.07	15.59	0.000	-0.79	0.47	-1.68	0.092
Women								
First act vs. only	0.46	0.15	3.14	0.002	0.08	0.22	0.36	0.718
First vs. second	0.73	0.10	7.16	0.000	-0.01	0.12	-0.05	0.962

^aFor those scored on two acts.

Table 4
 Unstandardized Coefficients from Multi-level Linear Regression of Severity of Aggression on each Motive Score by Gender

	First or Only Act				Second Act			
	b	SE	z	p	b	SE	z	p
Men								
Compliance	-0.19	0.04	-4.39	0.000	-0.44	0.10	-4.33	0.000
Grievance	0.10	0.07	1.40	0.162	0.45	0.17	2.69	0.007
Identity	1.25	0.10	12.99	0.000	1.77	0.20	9.04	0.000
Excitement	-0.03	0.06	-0.57	0.566	-0.42	0.13	-3.11	0.002
Women								
Compliance	-0.34	0.06	-5.90	0.000	-0.54	0.14	-4.00	0.000
Grievance	0.20	0.09	2.34	0.019	0.82	0.23	3.59	0.000
Identity	1.60	0.15	10.39	0.000	1.87	0.29	6.56	0.000
Excitement	0.23	0.11	2.18	0.029	0.01	0.23	0.05	0.962

Table 5
 Unstandardized Coefficients from Multivariate Multi-level Linear Regression of Severity of Aggression on Motive Scores by Gender

	Model 1				Model 2			
	b	SE	z	p	b	SE	z	p
Men								
Compliance	0.15	0.05	3.08	0.002	0.15	0.05	2.87	0.004
Grievance	0.17	0.08	2.14	0.033	0.18	0.08	2.21	0.027
Identity	1.41	0.09	15.04	0.000	1.37	0.10	13.94	0.000
Excitement	0.21	0.07	3.09	0.002	0.18	0.07	2.55	0.011
Post <i>Safer Bars</i>	-0.00	0.43	-0.01	0.994	0.00	0.44	0.00	1.000
Constant	7.67	0.20	38.23	0.000	7.74	0.20	37.94	0.000
Age					-0.06	0.03	-2.44	0.015
Intoxication					0.05	0.07	0.82	0.412
Height					-0.10	0.07	-1.43	0.152
Weight					0.02	0.01	2.48	0.013
Women								
Compliance	0.16	0.08	1.97	0.049	0.16	0.08	1.84	0.065
Grievance	0.31	0.09	3.42	0.001	0.32	0.01	3.34	0.001
Identity	1.73	0.15	11.21	0.000	1.61	0.16	9.98	0.000
Excitement	0.37	0.13	2.80	0.005	0.28	0.14	2.02	0.043
Post <i>Safer Bars</i>	-0.26	0.54	-0.48	0.632	-0.14	0.59	-0.23	0.816
Constant	6.01	0.24	24.63	0.000	5.80	1.50	3.87	0.000
Age					-0.02	0.04	-0.41	0.686
Intoxication					0.24	0.09	2.60	0.009
Height					0.05	0.10	0.53	0.594
Weight					0.00	0.01	0.16	0.871