Psychological Science

Third Parties, Violence, and Conflict Resolution : The Role of Group Size and Collective Action in the Microregulation of Violence

Mark Levine, Paul J. Taylor and Rachel Best

Research Article

Third Parties, Violence, and Conflict Resolution: The Role of Group Size and Collective Action in the Microregulation of Violence

Mark Levine[1], Paul J. Taylor[1], and Rachel Best[2]
[1]Lancaster University and [2]University of Memphis

Abstract
Although researchers know much about the causes of aggression, they know surprisingly little about how aggression leads to violence or how violence is controlled. To explore the microregulation of violence, we conducted a systematic behavioral analysis of footage from closed-circuit television surveillance of public spaces. Using 42 incidents involving 312 people, we compared aggressive incidents that ended in violence with those that did not. Behaviors of antagonists and third parties were coded as either escalating or conciliatory acts. Results showed that third parties were more likely to take conciliatory actions than to escalate violence and that this tendency increased as group size increased. This analysis revealed a pattern of third-party behaviors that prevent aggression from becoming violent and showed that conciliatory behaviors are more successful when carried out by multiple third parties than when carried out by one person. We conclude by emphasizing the importance of collective third-party dynamics in understanding conflict resolution.

The eminent ethologist and primatologist Frans de Waal (1989, 2000) has argued that when it comes to violence, more is known about how aggression starts than about how it is stopped or controlled. For example, research suggests that violence may result from the release of aggressive energy that has built up endogenously (Lorenz, 1967), the failure of parental control (Tremblay, 2006), or an adaptive function that facilitates sexual selection (Archer, 2009). By contrast, little research has examined what happens after aggression begins—that is, how aggressive situations become, or are prevented from becoming, violent. Analyses of performance in military environments have shed some light on this issue by suggesting that the transition from aggression to violence is not easy or automatic (Collins, 2008; Grossman, 1996). According to this work, for aggression to escalate into violence, important barriers need to be overcome. In this article, we argue that one of those barriers is the tendency of third parties in aggressive situations to favor de-escalation over escalation. We show that this de-escalation tends to increase as group size increases. Finally, we suggest that violence is not a result of individual deregulation in the presence of others, but rather is the result

of the failure of third parties to act in a collective and coordinated fashion.

In attempting to explain the causes of violence, psychological theories tend to combine the personological and the situational (Anderson & Bushman, 2002). The assumption seems to be that aggression lurks below the surface of the individual and that situational stressors (e.g., crowding: Kumar & Ng, 2001; temperature: Anderson, 1989) conspire to produce violence by straining an individual's ability to inhibit aggression. In contrast, de Waal (2000; Aureli & de Waal, 2000) has argued that what is most important about the transition from aggression to violence is that it occurs within a particular social context. In order to understand violence in context, it is necessary to understand how aggression is controlled or escalated by individuals who are involved in the situation and how reconciliation is achieved after violence has occurred. De Waal

Corresponding Author:
Mark Levine, Department of Psychology, Fylde College, Lancaster University, Lancaster, LA1 4YF, United Kingdom
E-mail: m.levine@lancaster.ac.uk

refers to the latter process as "natural conflict resolution" (Aureli & de Waal, 2000; de Waal, 2000).

Much of the animal research on conflict resolution has focused on the relationship between individuals who are directly involved in aggression and violence (Aureli & de Waal, 2000). However, there is a smaller literature on "third-party policing" (Flack, de Waal, & Krakauer, 2005; Flack, Girvan, de Waal, & Krakauer, 2006) that has explored how individuals in the wider community contribute to the regulation of aggression in groups. This work points to the key role played by third parties in the control of violence in social contexts. Third-party interventions seem to work best in animal societies in which there are a few powerful individuals with a recognized right to arbitrate; such interventions work least well in societies in which many individuals compete for dominance.

The idea that third parties act to control violence contrasts with the traditional social psychological account of human violence, according to which the presence of third parties leads to deregulation in an individual's behavior (Diener, 1980; Zimbardo, 1969) and increasing group size results in antisocial and violent behavior (Mullen, 1986). However, more recent research has suggested that third parties can promote prosocial as well as antisocial behavior (Postmes & Spears, 1998). For example, a series of studies by Levine and his colleagues (Levine, Cassidy, & Jentzsch, 2010; Levine & Crowther, 2008) has shown that larger group size can either facilitate or inhibit prosocial behavior, depending on the salience of social identities and the nature of intergroup relations. Similarly, observations of crowd behavior show that even when violence does occur, the nature of the violence is shaped by the norms and values of the group, and the spread of the violence is limited by the boundaries of the group identity (Reicher, 1987). There is even evidence of group members acting to stop others from behaving violently if that behavior is seen to contravene the values of the group (Reicher, 1987; Stott, Hutchinson, & Drury, 2001).

The possibility of group-level regulation of behavior is also supported by evidence from laboratory research on group altruism (Fehr & Fischbacher, 2003; Gintis, Bowles, Boyd, & Fehr, 2003) and by evidence of third-party altruistic punishment in sequential public-goods games (Boyd, Gintis, Bowles, & Richerson, 2003; Fehr & Fischbacher, 2004; Fehr & Gächter, 2002). Individuals have been shown to act in ways that are personally costly and that bring no direct or indirect reward, in order to regulate group norms and punish norm-violating individuals. These altruistic punishment behaviors even occur when there is no reputational advantage to be gained from intervening and no expectation of future interaction with the subject being punished. This evidence seems to suggest a natural predilection for third-party intervention within group contexts.

Despite this evidence for the importance of third-party regulation of human behavior, there has been very little systematic empirical analysis of how third parties work to regulate human violence. In fact, researchers know surprisingly little about how real-time human conflict resolution is achieved. This is undoubtedly because of the practical difficulties of capturing data on human violence as it emerges in real time and because of the ethical difficulties of manipulating variables in an experimental investigation of human violence. Many of these difficulties can be overcome in primate work, and, as a result, much more is known about conflict resolution in animal communities (Aureli, Cords, & van Schaik, 2002; de Waal, 2000; Silk, 2002) than in humans. When human conflict resolution has been studied, the focus has been on the development of conflict-resolution skills (e.g., in children: Verbeek, 2008) or on the longer-term resolution of marital or relationship conflict (Gottman, 1994), rather than on violence itself.

An opportunity to study the microdynamics of human conflict resolution has emerged from the modern proliferation of public-space, closed-circuit television (CCTV) surveillance in towns and cities in the United Kingdom. It is estimated that there are more than 4.2 million CCTV cameras in the United Kingdom—1 for every 14 members of the population—and almost every town and city center has a system (Murakami Wood et al., 2006). For the study reported in this article, we examined episodes of public aggression captured on the CCTV system of one city center. The data were collected by a small group of civilian CCTV operatives who were trained to record incidents of public aggression that were resolved short of violence or escalated into violence. To focus on violent behavior in the context of the group, we analyzed only incidents in which two antagonists fought in the presence of two or more third parties.

Given that our aim was to explore the nature of real-time conflict resolution, we examined three factors that might help us to distinguish between episodes of aggression that ended in violence and those that did not. These factors were group size, patterns of aggressive and conciliatory behaviors, and the role played by different actors during the events. Our study was aimed at answering three research questions. First, does the size of the group affect whether or not aggressive incidents end in violence? Second, what sequences of behaviors predict whether aggressive incidents end in violence or not? Third, to what extent does the effect of these sequences of behavior depend on the actions of multiple third-party intervenors?

Method
Data

Data were 42 CCTV clips of aggressive incidents recorded in public drinking spaces in a city in northwest England. The clips were obtained from the city council between January 2006 and February 2007. They contained recordings of incidents from the point at which there was potential for violence (e.g., when the CCTV operator noticed aggressive gesturing or behavior) to the point at which either the police had arrived or the incident had come to a natural end. Clips lasted between 1 and 8 min and conformed to specific criteria:

- Footage was continuous. An incident was excluded from analysis if the operator cut to another incident for operational reasons or if participants went out of the view of the cameras before returning.
- Clips contained an argument or fight between two people.
- There were at least two third parties.
- Clips contained a sequence of at least 20 behaviors by the antagonists and third parties.
- Incidents did not involve police officers, community wardens, or door security personnel ("bouncers").

Of the 42 clips, 6 contained 2 third parties (14.3%), 4 contained 3 third parties (9.5%), 7 contained 4 third parties (16.7%), 6 contained 5 third parties (14.3%), 5 contained 6 third parties (11.9%), 6 contained 7 third parties (14.3%), 3 contained 8 third parties (7.1%), 2 contained 9 third parties (4.8%), 2 contained 10 third parties (4.8%), and 1 contained 12 third parties (2.4%); the mean number of third parties was 5.4 (*SD* = 2.5). The 42 clips contained a total of 312 participants. In all but one of the cases, the antagonists were male.

Coding of the CCTV clips

Coding began by identifying the perpetrator, the victim, and the third parties in each CCTV clip. The behavior of these actors was then coded; discrete behaviors were identified and assigned to one of two categories: escalatory behavior or conciliatory behavior (see Fig. 1). Escalatory behaviors included hitting, slapping, punching, pushing, shoving, kicking, and dragging someone across the ground by hair or clothing. Conciliatory behaviors included making open-handed gestures,

blocking contact, holding a person back, and pulling people apart. Behaviors by the same individual were treated as separate only when there was a gap of at least 2 s between them. Using this approach, we coded the behavioral contribution of each actor, the person the behavior was directed toward, and where the behavior fell in the sequence of acts. Finally, we recorded group size for each episode, and we described the level of resulting violence as either minimal (minor pushing or shoving) or severe (sustained violence or acts resulting in unconsciousness or severe wounding).

To test the reliability of this coding, a trained Ph.D. student coded 9 (21.4%) of the clips. Agreement was defined as a match between coders that fell within a 1-s window. Agreement between the coders was 84% (Cohen's κ = .78). Disagreements in coders were resolved through discussion prior to analysis of the data.

Analyzing the behavioral sequences

To address the research question about the patterning of behaviors, we constructed a sequence of behavioral codes for each incident. For simplicity, these sequences retained the temporal order of the behaviors but not their exact timing (i.e., we used event sequences). To capture the contribution of different bystanders, we gave each bystander a unique numeric identity code. Specifically, when a second bystander acted after an initial bystander had already intervened, we identified the second bystander's behavior as the action of "Bystander 2" to differentiate it from the original bystander's behavior. When more than two bystanders acted in a sequence, we continued to assign unique numbers to differentiate these people from the original intervenor.

Fig. 1. Examples of escalatory and conciliatory behavior: (a) a perpetrator directing a punch toward the victim and (b) a third party inserting himself between the perpetrator and the victim. Faces in these still frames have been blurred to protect the identities of the people involved.

Results

As group size increased from 2 to 12 third parties, the average number of escalating behaviors within an incident showed a nonsignificant increase, from 14.8 to 24.0, $r = .18$, n.s. However, the average number of conciliatory behaviors also increased with group size, from an average of 23.0 to 49.0, $r = .44$, $p < .01$. The difference between these two correlations was significant, $t(39) = 5.61$, $p < .01$. Thus, group size had a stronger relationship to conciliatory behavior than to escalating behavior. This finding is reinforced by the prevalence of third parties' use of the two types of behavior across the incidents. All but 12 of the 228 third parties used conciliatory behaviors at least once during the incidents ($M = 5.05$, $SD = 4.97$), whereas only 70 of the 228 used escalatory behavior at least once during the incidents ($M = 1.26$, $SD = 2.81$). The result of this trend in behavior across incidents is that third parties used conciliatory behavior significantly more often than escalatory behavior, $t(41) = 7.75$, $p < .001$.

A linear regression of the average difference between the numbers of escalatory and conciliatory behaviors (escalatory minus conciliatory) regressed over group size was significant, $r = -.31$, $F(1, 40) = 4.17$, $p < .05$. Group members tended to de-escalate rather than escalate violence, and they appeared to do so more frequently as group size increased. To explore the consequence of this tendency, we examined the relationships among third-party behavior, group size, and our dichotomous measure of conflict outcome. A logistic regression showed that only the escalatory-conciliatory difference score predicted the severity of outcome, $b = 0.056$, $SE = 0.03$, Wald = 2.84, $p < .05$, one-tailed. Thus, the consequence of third parties using more conciliatory than escalatory behaviors was a reduction in the likelihood of severe violence.

Having established that increasing group size increases the predominance of conciliatory rather than escalatory behaviors, we considered the sequences of behaviors within the incidents to determine when and how group members intervened and what determined whether or not their interventions prevented violence. Using each instance of a perpetrator's aggressive behavior as a marker, we examined the conditional probabilities of various combinations of escalatory and conciliatory behaviors committed by group members. To explicate their role in the resolution of violence, we compared these probabilities between incidents that ended with minimal violence and those that ended with severe violence.

Figure 2 shows the odds ratios for the four turns of third-party behavior that followed escalatory behavior by the perpetrators. These ratios indicate the extent to which the relative use of escalatory behavior was higher (ratio above 1.00) or lower (ratio below 1.00) in severe-violence incidents compared with minimal-violence incidents. Specifically, the ratios were calculated by taking the ratio of conciliatory to escalatory behavior in incidents with minimal violence and dividing this value by the equivalent odds for incidents with severe violence. When the ratio of conciliatory to escalatory behavior was higher in the minimal-violence incidents than in the severe-violence incidents, the numerator of the odds ratio was greater than the denominator, which resulted in an odds ratio greater than 1.00. When the ratio of conciliatory to escalatory behavior was higher in the severe-violence incidents than in the minimal-violence incidents, the denominator of the odds ratio was greater than the numerator, and the resulting odds ratio was less than 1.00. We tested the asymptotic significance of the odds ratios using the Mantel-Haenszel common odds ratio test (one-sided; see Fig. 2 for test statistics).

These data reveal an important group-level dynamic: There was little difference in the use of escalatory and conciliatory behaviors across the first two acts following a perpetrator's aggression (see Fig. 2). At the third act, however, when two separate interventions had already taken place, there were significant differences between incidents of minimal violence and incidents of severe violence. For all but one sequence of turns, incidents ending in severe violence were at least 1.88 times more likely than incidents ending in minimal violence to have group members who used escalatory rather than conciliatory behavior in response to the two previous third-party interventions. The sequence that was the exception to this pattern (i.e., escalatory–conciliatory–escalatory) may arguably have resulted from the "mixed message" of escalatory and conciliatory behaviors being intermixed over the three acts, but that exception was resolved in the subsequent turn. The significance of the third bystander act in influencing how the sequence resolves suggests that it is not the behaviors of a single individual that provide the turning point in human violence, regardless of what that person does. Rather, it is the cumulative response of third parties to each act of a perpetrator's aggression that determines the trajectory of violence.

The importance of this cumulative response became clearer when we examined what occurred after the third behaviors in the sequences as a function of the identity of the third parties who intervened. As Figure 3 shows, if the three interventions were made by the same person, even though other third parties were present and could intervene, then the fourth turn was more likely to be escalatory than conciliatory, $\chi^2(1, N = 24) = 4.2$, $p < .05$. If the three interventions were made by two different third parties, in various combinations, then no significant preference for conciliatory or escalatory intervention was observed in the fourth turn. However, when the first three interventions involved three separate actors, the fourth turn was significantly more likely to be conciliatory than escalatory, $\chi^2(1, N = 68) = 15.1$, $p < .01$. In other words, collective and coordinated group intervention is more likely to lead to nonviolent outcomes than are repeated actions from the same individual.

There is a final way in which the actions of group members shaped the trajectory of the incidents. Examining data on who threw the first punch in each incident revealed a surprising tendency. Across the 42 incidents, perpetrators were responsible for 16 (53%) punches, all aimed at the victim; the victims were responsible for 4 (13%) punches aimed at the
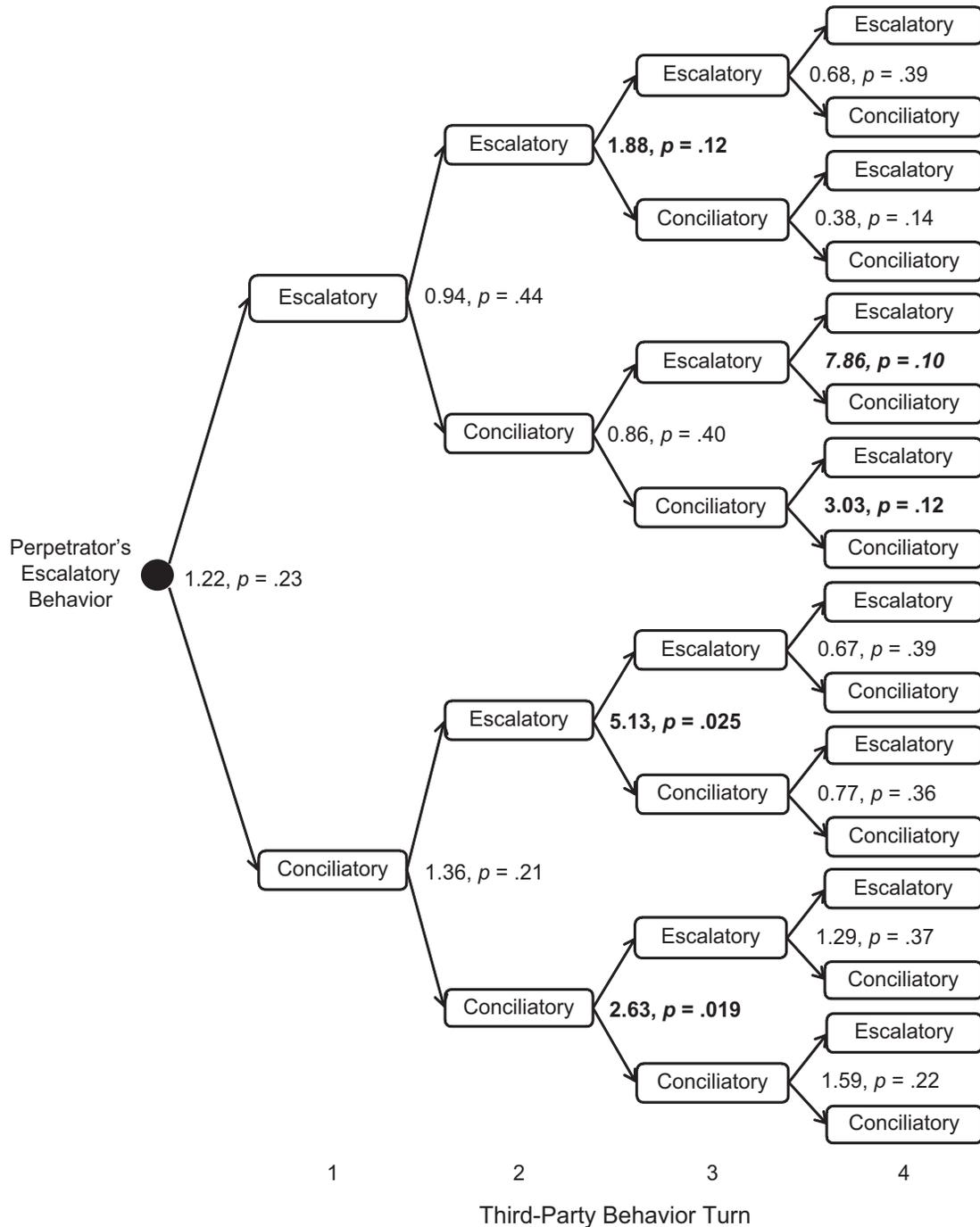
Fig. 2. Odds ratios for the occurrence of third parties' conciliatory behavior relative to third parties' escalatory behavior across the four acts following an occurrence of escalatory behavior by a perpetrator. A ratio above 1.00 indicates that the proportion of escalatory behaviors relative to conciliatory behaviors was greater in incidents ending with severe violence than in incidents ending with minimal violence. Values in boldface denote the most significant ratio for each sequence of four acts.

perpetrator; and third parties were responsible for 10 (33%) punches, of which 7 were aimed at the perpetrator. These data are important because they rule out the possibility that the incidents involved groups ganging up on victims. Rather, it seems that groups sometimes used violence as a tool to stop perpetrators from continuing their aggression.

Discussion

What does this microanalysis of aggressive incidents indicate about the translation from aggression to violence? Our data suggest that, at a behavioral level, third parties serve to inhibit, rather than facilitate, the likelihood of violence, and are even
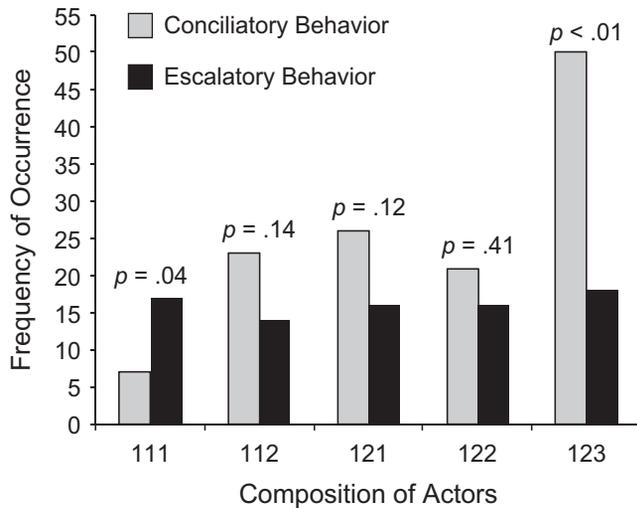
Fig. 3. Number of conciliatory and escalatory behaviors as a function of the preceding pattern of three third-party interventions. The numbers on the *x*-axis denote the sequence of third parties who took action: 111 = intervention of a single third party on three successive occasions; 112 = two behaviors by the same third party and a final behavior by a different third party; 121 = two behaviors by the same third party separated by an intervening behavior by a second third party; 122 = a single intervention by one third party and two subsequent behaviors by a second third party; and 123 = a series of behaviors by three different third parties. For each sequence of third parties, the graph shows the *p* value of the difference between the number of conciliatory behaviors and the number of escalatory behaviors (determined using a chi-square test).

more likely to do so as group size increases. This evidence that third parties are more likely to de-escalate than to escalate aggression stands in contrast to traditional psychological accounts of the role of groups and group size in violence. This study provides clear evidence that increasing the number of third parties does not undermine the ability of the group to regulate aggression, but rather strengthens its tendency to bring aggression under control. At the same time, the preponderance of conciliatory over escalatory behaviors provides support for de Waal's (2000) assertion that violence must be understood in the context of natural conflict resolution. It is clear that aggressive behaviors are most likely to be met with attempts at conciliation.

Why, then, do third parties intervene, especially when this kind of behavior can be costly and of little personal benefit? Here the concept of altruistic punishment comes into play (Boyd et al., 2003; Fehr & Fischbacher, 2004; Fehr & Gächter, 2002). Third parties become involved in order to enforce the norm of a nonviolent resolution, occasionally engaging in strategic violence of their own to "punish" perpetrators who ignore clear messages to desist. However, there is one way in which our findings differ from those of the experiments using sequential public-goods games. In our data, nonviolent outcomes (our measure of successful altruistic punishment) tended to result from three separate acts of three separate actors, rather than from a single third-party intervention. This suggests that although individuals may engage in altruistic

punishment, successful group regulation may result only when this behavior is collective and coordinated.

A similar point can be made regarding the literature on third-party policing among nonhuman primates (Flack et al., 2005, 2006). In that literature, successful third-party policing is usually explained by the "individual vigor" (Flack et al., 2005) of the animal that intervenes and the power distribution across individuals in the group. Successful third-party policing occurs in animal societies in which power is concentrated in the hands of the few and the rest of the society recognizes the right of the few to arbitrate disputes. Our data do not allow for judgments of individual vigor or social power among the human actors. However, it is clear that successful conciliation seems to require more than the actions of a single, powerful intervenor. In our data, the policing of violence was most likely to be successful when there was collective and coordinated intervention from three third-party actors. Such evidence for collective regulation of public disorder is consistent with anthropological (Fox, 1978) and ethogenic (Marsh, Rosser, & Harre, 1978) evidence that third parties to violence have an implicit understanding of the rules of disorder and that these rules are important for the public good. It is also consistent with work on the importance of the role of social identities in shaping group behavior in violent situations (Stott & Reicher, 1998).

Finally, the collaborative, triadic nature of the sequence of behaviors associated with successful intervention raises some interesting questions about the social psychology of groups. Research thus far has indicated that group regulation of the individual results from the salience of group identity and the transmission of norms and values, usually through a leader who embodies prototypical aspects of the group (Haslam, 2004). However, there has been very little research on how this regulation is achieved behaviorally. Our data suggest that three separate behavioral acts are required to ensure that the group message is successfully secured. There may be something about this triple interaction that is important for behavioral regulation of group interaction (cf. Taylor & Donald, 2003).

It is important to recognize some of the limitations of the data in this study. For example, our sample did not allow us to compare male and female actors, yet there is some evidence to suggest gender differences in how individuals engage in violence (Archer, 2009). Also, many of the individuals in our footage no doubt had consumed large amounts of alcohol (the CCTV clips were all collected between the hours of 10:00 p.m. and 4:00 a.m. in the nighttime leisure district of the city). We have no way of knowing who consumed alcohol, or how much had been consumed. The well-documented effects of alcohol on cognitive performance (Pernanen, 1991) may limit the generalizability of our findings.

However, even with these caveats in mind, an important finding remains. It could be argued that disinhibition as a result of alcohol consumption increases the likelihood of aggressive behavior and also induces a greater willingness to

intervene in situations in which other people are behaving aggressively. Given that both these outcomes are possible, the fact that conciliation emerged more strongly than violence in our data is significant. It seems that even when behavior is disinhibited as a result of alcohol consumption, acts of human violence are subsumed within the group dynamics of conflict resolution. Of course, it will be important to replicate these findings in more controlled conditions. However, to understand not only how human violence starts, but also how it is kept under control, researchers clearly need to recognize the central role of collective third-party conflict resolution.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

References

Anderson, C.A. (1989). Temperature and aggression: Ubiquitous effects of heat on the occurrence of human violence. *Psychological Bulletin*, *106*, 74–96.

Anderson, C.A., & Bushman, B.J. (2002). Human aggression. *Annual Review of Psychology*, *53*, 27–51.

Archer, J. (2009). Does sexual selection explain human sex differences in aggression? *Behavioral & Brain Sciences*, *32*, 249–311.

Aureli, F., Cords, M., & van Schaik, C.P. (2002). Conflict resolution following aggression in gregarious animals: A predictive framework. *Animal Behavior*, *64*, 325–343.

Aureli, F., & de Waal, F.B.M. (2000). *Natural conflict resolution*. Berkeley: University of California Press.

Boyd, R., Gintis, H., Bowles, S., & Richerson, P.J. (2003). The evolution of altruistic punishment. *Proceedings of the National Academy of Sciences, USA*, *100*, 3531–3535.

Collins, R. (2008). *Violence: A micro-sociological theory*. Princeton, NJ: Princeton University Press.

de Waal, F.B.M. (1989). *Peacemaking among primates*. Cambridge, MA: Harvard University Press.

de Waal, F.B.M. (2000). Primates: A natural heritage of conflict resolution. *Science*, *289*, 586–590.

Diener, E. (1980). Deindividuation: The absence of self-awareness and self-regulation in group members. In P.B. Paulus (Ed.), *Psychology of group influence* (pp. 209–242). Hillsdale, NJ: Erlbaum.

Fehr, E., & Fischbacher, U. (2003). The nature of human altruism. *Nature*, *425*, 785–791.

Fehr, E., & Fischbacher, U. (2004). Third-party punishment and social norms. *Evolution of Human Behavior*, *25*, 63–87.

Fehr, E., & Gächter, S. (2002). Altruistic punishment in humans. *Nature*, *415*, 137–140.

Flack, J.C., de Waal, F.B.M., & Krakauer, D.C. (2005). Social structure, robustness, and policing cost in a cognitively sophisticated species. *American Naturalist*, *165*, 126–139.

Flack, J.C., Girvan, M., de Waal, F.B.M., & Krakauer, D.C. (2006). Policing stabilizes construction of social niches in primates. *Nature*, *439*, 426–429.

Fox, R. (1978). *The Tory Islanders: A people of the Celtic fringe*. Cambridge, England: Cambridge University Press.

Gintis, H., Bowles, S., Boyd, R., & Fehr, E. (2003). Explaining altruistic behavior in humans. *Evolution of Human Behavior*, *24*, 153–172.

Gottman, J.M. (1994). *What predicts divorce?* Hillsdale, NJ: Erlbaum.

Grossman, D. (1996). *On killing: The psychological cost of learning to kill in war and society*. Boston, MA: Little, Brown and Co.

Haslam, S.A. (2004). *Psychology in organizations: The social identity approach* (2nd ed.). London, England: Sage.

Kumar, S., & Ng, B. (2001). Crowding and violence on psychiatric wards: Explanatory models. *Canadian Journal of Psychiatry*, *46*, 433–437.

Levine, M., Cassidy, C., & Jentzsch, I. (2010). The implicit identity effect: Identity primes, group size, and helping. *British Journal of Social Psychology*, *49*, 785–802.

Levine, M., & Crowther, S. (2008). The responsive bystander: How social group membership and group size can encourage as well as inhibit bystander intervention. *Journal of Personality and Social Psychology*, *96*, 1429–1439.

Lorenz, K. (1967). *On aggression*. London, England: Methuen.

Marsh, P., Rosser, E., & Harre, R. (1978). *The rules of disorder*. London, England: Routledge & Kegan Paul.

Mullen, B. (1986). Atrocity as a function of lynch mob composition: A self-attention perspective. *Personality and Social Psychology Bulletin*, *12*, 187–197.

Murakami Wood, D., Ball, K., Graham, S., Lyon, D., Norris, C., & Raab, C. (2006). *A report on the surveillance society*. Wilmslow, England: Office of the Information Commissioner.

Pernanen, K. (1991). *Alcohol in human violence*. New York, NY: Guilford Press.

Postmes, T., & Spears, R. (1998). Deindividuation and anti-normative behavior: A meta-analysis. *Psychological Bulletin*, *123*, 238–259.

Reicher, S. (1987). Crowd behaviour as social action. In J.C. Turner, M.A. Hogg, P.J. Oakes, S. Reicher, & M.S. Wetherell (Eds.), *Rediscovering the social group: A self-categorization theory* (pp. 171–202). Oxford, England: Basil Blackwell.

Silk, J.B. (2002). The form and function of reconciliation in primates. *Annual Review of Anthropology*, *31*, 21–44.

Stott, C.J., Hutchinson, P., & Drury, J. (2001). 'Hooligans' abroad? Inter-group dynamics, social identity and participation in collective 'disorder' at the 1998 World Cup finals. *British Journal of Social Psychology*, *40*, 359–384.

Stott, C.J., & Reicher, S.D. (1998). How conflict escalates: The intergroup dynamics of collective football crowd 'violence.' *Sociology*, *32*, 353–377.

Taylor, P.J., & Donald, I.J. (2003). Foundations and evidence for an interaction based approach to conflict. *International Journal of Conflict Management*, *14*, 213–232.

Tremblay, R.E. (2006). Prevention of youth violence: Why not start at the beginning? *Journal of Abnormal Child Psychology*, *34*, 481–487.

Verbeek, P. (2008). Peace ethology. *Behaviour*, *145*, 1497–1524.

Zimbardo, P.G. (1969). The human choice: Individuation, reason, and order versus deindividuation, impulse, and chaos. In W.J. Arnold & D. Levine (Eds.), *Nebraska Symposium on Motivation* (pp. 237–307). Lincoln: University of Nebraska Press.