Multiple Perpetrator Rape: Is Perpetrator Violence the Result of Victim Resistance,

Deindividuation, or Leader-Follower Dynamics?

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Abstract

Objective: Violence perpetrated by groups has been proposed to result from processes that include deindividuation, instrumental responses to victim resistance, and leader-follower dynamics. Here we compare the explanatory merit of these accounts by analyzing the sequential patterns of behaviors that occurred in 71 accounts of multiple perpetrator rape by 189 suspects against lone females.

Method: Victim accounts of the offenses made to the Police were coded for leader, follower, and victim actions using the interpersonal circumplex quadrants, and the offenses were rated as involving high or low non-sexual aggression.

Results: Analysis of the temporal proximities among victim and suspect behaviors found that (1) in contrast to deindividuation, hostility deceased rather than increased with group size; (2) victim behavior had no significant effect on perpetrator violence; and, (3) leader behavior had a significant effect on group violence.

Conclusions: Compared to low aggression offenses, high aggression offenses were characterized by the leaders' hostile behaviors reinforcing the hostile behavior of followers, as well as there being some mutual reinforcement from follower(s) to leader. This has implications for theories of (sexual) violence perpetrated by multiple individuals, as well as for clinical work with such offenders. For example, the influence of peers in these offenses has implications for the planning of interventions with such offenders and the sorts of intervention that are likely to be successful.

Keywords: group rape, interpersonal circumplex, victim resistance, deindividuation, leader-follower dynamics

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Sexual violence committed by multiple perpetrators occurs in many countries, with 2% to

27% of the total number of offenses reported to the police involving multiple perpetrators

(Horvath & Kelly, 2009; Vetten & Haffejee, 2005). These offenses are often reported in the

world's media as involving considerable violence and sometimes the death of the victim

(Franklin, 2013). While some critics argue that the media focuses on only the most extreme

cases, research has consistently reported the violent nature of sexual offending by multiple

perpetrators (see Woodhams, 2013, for a review). Interestingly, at least three distinct theories of

group violence could explain why violence is more likely to occur with multiple perpetrator

sexual offending by emphasizing processes associated with victim resistance[1], deindividuation,

or leader-follower dynamics. We are not aware of any empirical test of these alternative

explanations. The current study uses data from actual crime reports to evaluate these three

theories of violence in multiple perpetrator rapes.

Explanations for Violence in Multiple Perpetrator Sexual Offenses (MPSOs)

In trying to understand why violence occurs in group contexts, two sets of literature are

relevant; studies comparing violence by groups versus lone individuals, and studies of violence

within different groups. The sexual offending literature contains studies of both types. Sexual

offenses committed by multiple perpetrators involve more physical violence than sexual offenses

by lone perpetrators (Woodhams, 2013), but not all MPSOs are characterized by the same degree

of violence, nor the same type of violence directed towards the victim (Bijleveld, Weerman,

Looije, & Hendriks, 2007; Porter & Alison, 2004, 2006).

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[1] We are not implying that victims should be blamed or deemed responsible in any way should their acts of
resistance appear to be associated with acts of aggression by the perpetrator(s).

Woodhams, Gillett, and Grant (2007) proposed three potential explanations for these two findings: victim resistance, deindividuation, and group dynamics. The first explanation implies that physical violence in MPSOs is instrumental in its nature (Feshbach, 1964) and that it occurs when victims resist the perpetrators' wishes. If victims of MPSOs were more resistant and non-compliant than victims of lone perpetrators, then this would explain why offenses by groups are characterized by more violence than offenses by lone perpetrators. In support of this explanation, Meier and Hinsz (2004) found that individuals anticipate greater hostility from groups. When faced with a group, a victim might react with non-compliant behavior that could, subsequently, trigger dominance or hostility behaviors from the offenders. In theory, larger groups would present a greater threat of hostility.

However, not all evidence supports the victim resistance explanation. Luckenbill's (1981) study of group robbery found that victims faced with a group of perpetrators were more likely to perceive them as having greater punitive resources, which they responded to with compliance rather than resistance. Similarly, research of MPSOs has shown that, compared to victims of offenses by lone perpetrators, victims of MPSOs were less likely to use forceful physical resistance (Ullman, 2007). Other research points to the heterogeneity of perpetrator reactions to victim resistance (i.e., not all result in instrumental violence). For example, Fritzon and Ridgway (2001) found that while some attempted murderers reacted to victim resistance by changing their behavior, others became more aggressive, depending on the value that the victim held for him or her. Others have reported qualitative differences in MPSO violence, suggesting it is gratuitous or expressive in nature rather than instrumental (Chambers, Horvath, & Kelly, 2010; Hunter, Hazelwood, & Slesinger, 2000; Porter & Alison, 2006; Wood, 2005). They report no similarity between the types of resistance shown by victims and the type of violence used by the

perpetrators (Bijleveld et al., 2007). Taken together, these findings suggest that victim resistance is of limited explanatory value.

A second explanation for MPSO violence stems from theories of deindividuation, which attribute group violence to the anonymity found within large groups and a resulting loss of self-identity and self-control (for a review, see Postmes & Spears, 1998). For example, Amir's (1971) work on group sexual violence highlights how being part of a group may reduce the inhibition felt by individuals, and studies with perpetrators of MPSOs report violence being associated with feelings of camaraderie and experiences of power (Groth & Birnbaum, 1979; Leuw, 1985, as cited in Biljeveld & Hendriks, 2003; Scully & Marolla, 1985). Similarly, Zimbardo (1969) proposed arousal as an antecedent for deindividuation, and heightened levels of arousal and a reduced sense of responsibility have both been self-reported by perpetrators of MPSOs (Bijleveld et al., 2007; Etgar & Ganot-Prager, 2009).

A central assertion of explanations associated with deindividuation is that greater deindividuation effects should be observed with increasing group size (Postmes & Spears, 1998, although see Levine, Taylor, & Best, 2011). Deindividuation effects are, therefore, not only able to explain why MPSOs are more violent than offenses by lone perpetrators, but they can also account for variations in level of violence within samples of MPSOs, whereby larger groups should display more violence than smaller groups.

A third set of explanations for violent behavior during MPSOs focus on the dynamics among group members, such as peer pressure to be violent and the modelling of actions by prototypical group members. Group members who have committed MPSOs often attribute their involvement to admiration of the group's leader (Groth & Birnbaum, 1990) and their desire to maintain a positive social image and group membership (da Silva, Woodhams, & Harkins, 2018;

Etgar & Ganot-Prager, 2009; Hooing, Jonker, & van Berlo, 2010; Jewkes et al., 2006; Jewkes,

Sikweyiya, Morrell, & Dunkle, 2011). Others have outlined the importance of the peer group for

juveniles and adolescents (Lipsey & Derzon, 1998; Loeber & Stouthamer-Loeber, 1996), and

MPSOs are often committed by younger offenders (da Silva, Woodhams, & Harkins, 2015).

Failure to participate in an MPSO can also result in ostracism, humiliation (Groth & Birnbaum,

1990), and retaliation from the group (Franklin, 2004).

Of particular relevance are Porter's (2013) arguments for the key role of a group leader in

encouraging MPSO violence. For example, leaders are purported to influence the behavior of

other group members by initiating the offense (thus serving as a model for others), leading by

example, or by directly giving orders to their peers (Porter & Alison, 2006). Leaders in MPSOs

have also been described as the first perpetrator to physically assault the victim (Amir, 1971),

and they have been proposed and shown to be more violent towards the victim overall (Franklin,

2004; Woodhams & Cooke, 2013). A clear leader has been identified in studies of MPSOs in

33% to 95% of the samples (Bijleveld et al., 2007; Porter & Alison, 2001; Woodhams et al.,

2012), which implies that such influences could hold explanatory value for violence in many

MPSOs.

Group dynamics can, therefore, account for MPSOs being more physically violent than

rapes by lone perpetrators. They would also account for variation in physical violence within

MPSOs if the characteristics associated with the activation of group dynamics varied; for

example, variation in the degree of peer pressure as a result of the ages of the group members

(Lipsey & Derzon, 1998), or whether there is an influential, violent leader. However, as Porter

(2013) argues, through the act of followership, followers can reinforce the behavior of the leader.

Thus, within MPSOs, one might expect to see mimicry of a leader's violence toward the victim

by his/her followers, and reciprocal mimicry as the violent actions of followers encourage further violence by the leader.

Current Study

Until now, a systematic test of these three explanations for group violence has not been possible in MPSOs, in part due to an absence of studies that have preserved the temporal ordering of victim and offender behaviors (e.g., Porter & Alison, 2004). Other studies have relied on post-hoc accounts of small samples of convicted perpetrators (e.g., Blanchard, 1959; da Silva et al., 2018) and, therefore, suffer from the methodological limitations of intentional distortion, poor memory, and reliance on potentially unrepresentative samples. We address this here by coding full action-by-action accounts of multiple perpetrator rapes held by law enforcement (and so these are not convicted samples).

We adopt the interpersonal circumplex (Leary, 1957) as the means of categorizing victim and offender behaviors because of its suitability for the study of interpersonal behavior and social structures within dyads, families and teams (e.g., Orford, 1994; Smith, 2013), and for interaction partners who are acquainted and unacquainted, in criminal and non-criminal situations (e.g., Alison, Snook, & Stein, 2001; Markey, Funder, & Ozer, 2003). It is a well-established and empirically supported model for explaining the types of exchanges seen in interpersonal interactions (Horowitz, Dryer, & Krasnoperova, 1997; Markey et al., 2003).

The circumplex proposes that all human behavior can be described in terms of two orthogonal dimensions: control (running from dominance to submission) and affiliation (running from cooperation to hostility) whose interaction results in four behavioral quadrants of dominance, submission, cooperation and hostility (Alison & Stein, 2001). The properties of the circumplex model are thought most likely to emerge in unstructured situations (in the absence of

clearly defined roles for interactional partners) and where there is a pre-existing relationship between interaction partners (Markey et al., 2003). Sexually violent interactions are certainly unstructured situations. Regarding the degree of pre-existing acquaintance between suspect(s) and victim, the circumplex has been successfully applied to sexually violent interactions by lone perpetrators (e.g., Alison & Stein, 2001) and multiple perpetrators who are strangers to their victims (e.g., Hauffe & Porter, 2009; Porter & Alison, 2004). Behaviors indicative of each of the four quadrants (dominance, submission, cooperation and hostility) were found in these three studies (i.e., Alison & Stein, 2001; Hauffe & Porter, 2009; Porter & Alison, 2004). Further, Woods and Porter (2008) gave specific attention to the model's application to sexual offenses by strangers versus acquaintances and found that while the *proportion* of suspect behaviors within each of the hypothesized quadrants varied depending on level of acquaintance, they did not vary for victim behavior and, crucially, each quadrant was still represented in both stranger and acquaintance sexual offenses for victim *and* suspect behavior. These studies support adoption of the circumplex model here to classify behaviors in multiple perpetrator rapes into the four quadrants of the circumplex allowing us to test the three explanations that have been proposed for violence within MPSOs.

Each of the above explanations for violence in MPSOs can be described in terms of the nature of the behavior exhibited according to the interpersonal circumplex. The explanation that offenders' physical violence results from victim resistance would be revealed through a relationship between acts of victim dominance and offender hostility[2][3]. Evidence of offenders'

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[2] Victim resistance was operationalized in this study as victim dominance. Studies of multiple perpetrator rape that have examined specific resistance behaviors (e.g., Woodhams, Hollin, Bull, & Cooke, 2012) show that physical violence (i.e., hostility) by the victim is less common than other resistance behaviors (e.g., struggling, shouting), which are classified as dominance (e.g., Alison & Stein, 2001).

[3] This relationship, while a potential explanation for offender violence in MPSOs (Woodhams et al., 2007), would not be predicted by the interpersonal circumplex's notion of reciprocity (Carson, 1969; Kiesler, 1983).

behaviors being mutually reinforcing, or followers mimicking the (violent and therefore, hostile) behavior of group leaders, would support the explanation that group dynamics result in violence. Finally, if physical violence were the result of deindividuation, then there should be more occurrences of hostility in larger groups.

Our specific hypotheses were:

H1: Victim dominance will lead to more suspect hostility in high aggression compared to low aggression multiple perpetrator rapes;

H2: As group size increases there will be relatively more occurrences of hostility from the perpetrators;

H3: Followers' mimicry of their leader's behavior will result in more hostility in high aggression compared to low aggression multiple perpetrator rapes (H3).

Method

The study received ethical scrutiny and approval from the University of Gloucestershire's Ethics Committee.

Sample

Seventy-one lone female victim accounts of 71 rapes by 189 males were obtained from the Serious Crime Analysis Section (SCAS) of the United Kingdom's (UK) National Crime Agency (NCA). As the unit with national responsibility for analyzing sexual offending behavior, SCAS collates the most comprehensive collection of police files on cases of stranger sexual assault in the UK. Funding was secured to enable data collection on the secure police site in 2008. The funding supported data collection for a fixed time period, therefore, the researchers began with the most recent rape committed by multiple perpetrators on the Violent Crime Linkage Analysis System (ViCLAS), a database held by SCAS, and worked backwards until the

time available for data collection was exhausted. For 71 of these rapes a group leader was

identifiable making them suitable for the analysis outlined here.

For all victims, at least one suspect was a stranger to them and for most (92%) it was

recorded that all perpetrators were strangers. Most victims were White (83%), with the

remainder being Black (4%), or their ethnicity was not recorded (13%). Victim age was recorded

for all but two victims and these ranged from 13 to 55 years ($M = 24$ years). Perpetrators acted in

groups that ranged in size from 2 to 7 perpetrators, with duos being most common (58%),

followed by 3 (28%), 4 (9%), 5 (3%), 6 (1%), and 7-person groups (1%). Seventy-four per cent

of groups consisted of perpetrators sharing the same ethnicity, which was most often White

(44%), followed by Asian (13%), Black (13%), Arabian (3%) and South-East Asian (1%). For

four groups ethnicity was not recorded. The mean age of each perpetrator group, as estimated by

the victim, could not be calculated for 10 cases due to missing data, but for the remainder this

ranged from 17 to 40 years ($M = 26$ years).

The data used in the study were victims' accounts of the offense they experienced, as

provided by them to the UK Police. The accounts were extracted direct from the police case files

with the source being either the official victim statement (the MG11 form), the DVD of the

victim's interview with the interviewing officer (or the verbatim transcript from the recording),

or the record of the victim's interview that is written by the interviewing officer(s). Such

accounts include a detailed description of each behavior displayed by victim and perpetrator(s) in

the order in which the victim reports them occurring. They can also contain information about

the victim's injuries, the psychological effect of the crime, the victim's private life and their

activities in the time leading up to the offense. None of this information was relevant for the

purposes of our research and therefore the information extracted from the case files focused only

on what occurred during the offense. No identifying information was included in the extracted

data to protect the identities of all parties. We did not sample offenses where the victim could not

remember what had happened or was very inebriated as there would be a much higher likelihood

of missing information in such cases (Flowe, Takarangi, Humphries, & Wright, 2016).

Coding of Behavior

Dale, Davies, and Wei (1997) have shown that rape involves three stages of interaction:

approach, maintenance and closure. The maintenance stage begins at the point that the victim

realizes the intent of the perpetrator(s) and lasts until the sexual assault is complete and the

perpetrator(s) are ready to leave the scene (Dale et al., 1997). It is the stage at which the wishes

of the perpetrator(s) and victim are diametrically opposed and where the most victim resistance

has been observed (Woodhams, Hollin, et al., 2012). Acts of non-sexual aggression and violence

used to facilitate the rape (if used at all) also start to appear in the maintenance stage and not

before. Since our hypotheses pertain to suspect violence and victim resistance, our analysis

focuses on behaviors that occurred during this maintenance stage. It is important to note that the

maintenance stage can commence with either a victim or a suspect behavior. It is not, therefore,

demarked by the first act of victim resistance.

The behaviors of victims and offenders that occurred in the maintenance stage, as

reported in the victims' accounts, were coded according to the quadrants of the circumplex

model (see Figure 1 and the Supplementary Materials). Each behavior was coded by the first

author as either an act of dominance, submission, hostility, or cooperation. As described above,

the data were detailed descriptions of each rape that reported each perpetrator and victim

behavior in order, as described by the victim. To give a representative, but fictitious, example[4] of

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[4] Our data sharing agreements with the UK Police do not permit us to reproduce actual examples from the transcripts we analyzed.

an extract: "Suspect 1 told me that if I did not remove my dress, he would hit me. I therefore

took off my dress. He laughed that my underwear was something his grandma would wear." This

extract therefore contains three different behaviors that can be coded according to the four

quadrants; two suspect behaviors and one victim behavior. The interrater reliability of the first

author's coding, which was assessed by having an independent judge examine 25% of the

sample ($n = 18$ cases), was "almost perfect" ($\kappa = .86$) (Landis & Koch, 1977). Disagreements

were resolved by discussion.

<center>INSERT FIGURE 1 APPROX HERE</center>

To test our hypotheses, it was also necessary to rate each rape for its overall level of

aggression and to assign each actor in the rape the role of either leader or follower. Each suspect

behavior in each rape was rated for its level of non-sexual aggression using a Likert scale

ranging from 0 to 6. This behavior could be a verbal behavior or a physical behavior. A score of

0 was given where there was no aggression ranging to 6 where the aggression was extreme (e.g.,

repeated beating of the victim's face or head, or stabbing the victim). Less extreme forms of

aggression could include threatening the victim with violence or death, pushing or shoving the

victim. Acts of non-sexual aggression were readily distinguishable from acts of sexual

aggression within the victims' accounts. The highest value given to a suspect's behavior in each

offense was used as the overall aggression score for the offense. For the purpose of our analyses,

each offense was categorized as either high or low aggression. This was achieved via a median

split conducted on the overall aggression scores for the offenses.

Leader or follower status was assigned using the Scale of Influence (Porter & Alison,

2001). The Scale of Influence measures the relative influence of each suspect involved in a group

offense at key stages of the offense including formulating the idea to commit the offense,

selecting the victim, approaching the victim, committing the sexual offense (in the case of sexual violence), and disposing of the victim. A higher score is given to a suspect if they direct another to engage in a behavior rather than engaging in it themselves (whereby they can still influence others by leading by example). With regards to the validity of the Scale of Influence, a previous study by Woodhams, Cooke, Harkins & da Silva (2012) is relevant to its construct validity. Using a larger dataset than reported in this paper, they assessed concordance between designations of leadership using the Scale of Influence and those based on the use of directives (a linguistic act), and expert practitioner opinion. The concordance for the Scale of Influence and directives was 61%, and 64% for the Scale of Influence and expert practitioner opinion. The coding of non-sexual aggression as well as leadership had already been conducted as a part of previous research studies (Woodhams & Cooke, 2013; Woodhams, Cooke, et al., 2012) and both sets of coding had been shown to be reliable (ICC = .99 and .70, respectively).

Data Analysis Plan

We examined the interrelationships among the behaviors of each actor by constructing event sequences in which the series of assigned codes formed a single sequence of behaviors (Bakeman & Gottman, 1997). These sequences were then examined using proximity coefficients (Taylor, 2006), which provide a way of examining the associations between cues and responses that do not restrict analysis to a pre-defined 'lag' or interval. Specifically, the proximity approach assumes that the effect of a 'cue' on subsequent responses diminishes as one moves through the behaviors in a sequence (i.e., as proximity decreases). As others have shown (Gottman, Markman, & Notarius, 1977), behaviors that occur immediately prior to a current behavior have the most influence on that behavior, but other behaviors further back in the sequence history may still have a 'lagged' effect (Taylor & Donald, 2003).

Proximity coefficients range between .00 and 1.00, where 1.00 indicates that a response immediately follows a cue on every occasion, and .00 indicates the response and cue occur only at the last and first place in the sequence respectively. A coefficient between these values reflects different amounts of proximity, with lower values indicating less proximal cue-response relationships. Using this approach means that one can derive, for any cue-response pair of interest, a coefficient for each case within the data set. These coefficients can then be compared across the independent variable of interest (e.g., outcome type, leadership, see Taylor & Donald, 2007). To make these comparisons, we adopted Giebels and Taylor's (2009) approach of using randomization tests. Specifically, for each reported comparison, we randomly sampled from the available data 10,000 times, calculated the equivalent proximity coefficient on each occasion, and used the resulting distribution to determine how likely it is to have observed the difference in coefficient values found in the original data.

Currently there exists no formal method of undertaking an *a priori* power analysis with randomization tests of proximity coefficients. However, because the coefficients draw their observations from every cue-response relationship within a sequence, and because randomization tests make no assumptions about the distribution of those observations, they have proven effective as a method for comparisons across data far smaller than our 71 cases, including 27 interviews (Beune, Giebels, & Taylor, 2010) and 21 negotiations (Taylor & Donald, 2007). A sensitivity power analysis assuming linear models and a power of 80% suggested that our observed effect sizes exceed the minimum observable for all hypotheses ($d = .508$ for H1 and H3, and $r = .199$ for H2).

Results

Table 1 displays the frequency of victim and perpetrator behaviors categorized as one of the four quadrants of the circumplex. Given the combative nature of rape, it is unsurprising that the four quadrants do not occur equally and that there is an over-representation of dominance behaviors by all parties. Such an imbalance in behavior use does not affect hypothesis testing so long as the relationships among the behavior retains a circumplex structure. To determine this, we computed standard tests of circumplex structure on the coded behaviors, namely, a test of indifference to rotation and a test of equal variance of squared factor loadings across arbitrary rotations (Acton & Revelle, 2004). Consistent with the approach taken by Acton and Revelle, the data were compared to randomized equivalents, revealing that the study's data were more circumplex in structure than would be expected by chance ($t > 57.3$, $p < .001$).

INSERT TABLE 1 HERE

To test the prediction, stemming from accounts relating to victim resistance, that acts of victim dominance would lead to further offender hostility (H1), we examined the proximity of perpetrator hostility to victim dominance behaviors across high and low aggression outcomes. Support for our hypothesis would be seen in a larger proximity coefficient for acts of victim dominance and perpetrator hostility (VD-PH) in high aggression compared to low aggression rapes. By contrast to H1, we found evidence of a difference in the opposite direction; the size of the VD-PH proximity coefficients was larger for low (Mean $P = .844$) compared to high (Mean $P = .812$) aggression rapes, $F(1, 54) = 6.55$, $p = .013$, $d = .686$, 95% CI [.133, 1.24].

To test our prediction, based on theories of deindividuation, that there would be a relationship between group size and perpetrator hostility (H2), we examined the proportion of perpetrators' hostile and submissive behaviors as a function of group size. As group size increased from 2 to 7 perpetrators, the average number of hostile behaviors by the perpetrators

showed a statistically non-significant increase, $r = .042$, $p > .730$. By contrast, the average number of submissive behaviors by the perpetrators showed a statistically significant increase, $r = .236$, $p = .048$. The difference between these two correlations, assessed by regressing group size on the average number of hostile behaviors while including an interaction term for submissive behaviors, confirmed that the presence of more offenders led to de-escalation rather than escalation in aggression ($B = .399$, SE $= .106$, $t = 3.78$, $p < .001$).

To test our prediction that physical violence occurs due to the malevolent influence of an aggressive leader (H3), we examined leader-follower behavioral proximity coefficients for the same quadrant as a function of outcome. Consistent with H3, two between-subjects ANOVAs with incident outcome as the independent variable and the proximity coefficients as the dependent variable revealed more mimicry of the leader by the followers for hostility in high aggression rapes (Mean $P = .844$) compared to in low aggression rapes (Mean $P = .650$), $F(1, 31) = 3.31$, $p = .078$, $d = .641$, 95% CI [-.095, 1.38], and significantly more mimicry of leader's submissive behaviors in high (Mean $P = .838$) compared to low aggression (Mean $P = .714$) rapes, $F(1, 47) = 7.55$, $p = .009$, $d = .789$, 95% CI [.190, 1.39]. There were no differences in mimicry for leader cooperation or leader dominance behavior (both Fs < 1).

Finally, we explored the possibility that follower behavior may also reinforce the approach of their leader. Equivalent ANOVA to those above on follower-leader behavior proximities determined that dominant behavior by a follower was more proximal to leader hostility in high aggression (Mean $P = .808$) compared to low aggression (Mean $P = .590$) incidents, $F(1,43) = 4.83$, $p = .031$ $d = .657$, 95% CI [.038, 1.28]. This was not the case for any other form of behavior (including hostility).

Discussion

While various theories exist to explain violence in group settings, it had not yet been possible to test their applicability to multiple perpetrator rapes due to inadequacies in data. Using a unique data set and analysis that preserved the sequential nature of interaction, we tested three potential explanations for violence in multiple perpetrator rapes: (H1) it is an instrumental response to victim resistance; (H2) it results from deindividuation and the convergence of multiple, violent individuals; and, (H3) it results from group dynamics and particularly the actions of the leader. Of these three explanations, the only one that received support within our data was the role of group dynamics and leader and peer influence. While previous studies have found that the majority of multiple perpetrator rapes involve one individual exerting greater influence over the group than the others (labelled the leader; e.g., Porter & Alison, 2001; 't Hart-Kerkhoffs, Vermeiren, Jansen, & Doreleijers, 2011)—a finding that resonates with evidence from social psychology showing that leaders typically drive a social identity by embodying prototypical aspects of groups (e.g., Haslam, 2004)—those studies do not inform our understanding of how this social process occurs at the behavioral level. Our data suggest that peer mimicry of behavior plays an important role. Specifically, it suggests that leader influence is moderated by the mimicry of the leader's hostile (and submissive) behaviors by his peers and that, crucially, this mimicry occurred more in rapes that involved high compared to low aggression. Thus, as Porter (2013) argues, peers (followers) appear to play an important role in creating a social norm that 'allows' the leader to define the behavioral choices of the group. In high aggression rapes, leaders' acts of hostility toward the victim are encouraged by peers' use of dominance towards the victim more so than in low aggression rapes. The result of this behavior is more violence.

Evidence for violence in MPSOs being explained by a multitude of violent individuals converging was not forthcoming. By contrast, larger groups were associated with less violent (hostile) rapes, which suggests that increasing group size does not reduce the ability of group members to regulate their aggression. This finding is consistent with Levine et al.'s (2011) observation that larger groups were more likely to encourage conciliatory rather than escalatory behaviors during street fights. They suggested this collective regulation of aggression was a form of 'altruistic policing,' since intervening carried no clear benefit and inherent risk. The same argument could apply to the extreme context of multiple perpetrator rapes, since here too a peer who fails to emulate the hostile behavior of his leader could be spurned by the group. However, when his actions occur within the context of similar actions by peers in a large group, they appear to bring a regulation to behavior that limits violence (cf. football crowd violence, Stott & Reicher, 1998).

There was also no evidence that violence in multiple perpetrator rapes was a result of victim resistance (i.e., their acts of dominance). This is in line with previous studies of MPSOs (Chambers et al., 2010; Hunter et al., 2000; Porter & Alison, 2006; Wood, 2005) that have noted the gratuitous nature of aggression and violence by some perpetrators that is disproportionate to any victim behavior (i.e., that it goes beyond a level required to control a victim and thus is unrelated to victim behavior).

Limitations

The sample analyzed here consisted of rapes whereby at least one perpetrator was a stranger to the victim and, in most cases, the victim was unacquainted with all perpetrators. While victims of acquaintance and intimate partner rape have been found to be more "actively resistant" than victims of stranger rape (Feinstein, Humphreys, Bovin, Marx, & Resnick, 2011),

the types of behavior defined as "active resistance" mirror the types of victim behavior observed in our study. This suggests that, while the proportion of behaviors in the quadrants of the circumplex might differ with samples of acquaintance and intimate MPSO, the underlying theoretical findings would be generalizable. In fact, Woods and Porter (2008) found that the proportion of victim behaviors in the quadrants did not differ by level of acquaintance with a sample of *lone* perpetrator rapes. Whether or not the findings generalize to rapes by *multiple* perpetrators who are acquainted with the victim warrants investigation.

The data provided for the study were allegations of rape from the UK. The findings may thus reflect idiosyncrasies of group behavior that do not generalize to other countries, and they may be more myth-congruent than accounts of rape not reported to the police (Clay-Warner & Burt, 2005). Moreover, when giving their account to the police, victims may give an incomplete account for reasons of embarrassment or shame, or a reluctance to share the details of what occurred (Alison et al., 2001).

Research Implications

Our findings provide mixed support for existing theories of MPSO (Harkins & Dixon, 2010; 2013), which propose both deindividuation and peer influence as explanatory factors. Like Levine et al. (2011), we found the opposite relationship between group size and violence that deindividuation theory would predict. One possible explanation for this is the relatively small size of groups that are involved in MPSOs; the largest group in academic research of MPSOs had 14 members (da Silva, Woodhams, & Harkins, 2013) with most groups being composed of far fewer individuals (Bamford, Chou, & Browne, 2016). It is possible that deindividuation, as a psychological state, is not experienced in groups of the sizes typically seen in MPSOs, meaning it would not be a valid explanatory factor for violence in the majority of such offenses.

Where our data are consistent with existing theories is in relation to the role of leadership as a key mechanism for other forms of violent and aggressive behavior (e.g., extremism according to uncertainty-identity theory; Hogg, 2014). However, our findings also caution against placing too great a focus on the leader and neglecting the role of followers in reinforcing the leader's behavior (Porter, 2013). Similarly, while leaders were responsible for initiating raiding parties among the Nyangatom in East Africa, it was the followers who dictated the size and composition of raids (Glowaki, Isakov, Wrangham, McDermott, Fowler, & Christaskis, 2016). Where possible, future studies of group aggression and violence should preserve temporal data on group member interaction to allow for more detailed study of how leaders and peers interact and mutually reinforce one another's behavior.

Existing studies of MPSOs have reported the representation of the interpersonal circumplex in victim/perpetrator behavior (Hauffe & Porter, 2009; Porter & Alison, 2004; Woods & Porter, 2008) but with datasets largely composed of accounts from media and legal reports that would likely be unrepresentative of all MPSOs. Although not the principal purpose of this study, our verification of our coding against the interpersonal circumplex provides additional support that this is a valuable framework for understanding violent behavior this time with a dataset of allegations made to the police. This was true despite the fact that some quadrants of the circumplex (e.g., dominance) were over-represented, as is to be expected with interpersonal interactions of this nature and has been previously found with stranger sex offenses committed by lone perpetrators (Woods & Porter, 2008).

Arguably, the relevance of each of the explanations explored in this paper may depend on perpetrator propensity for violence: men with prior convictions for coercion and control of a partner may react more violently to victim resistance; men with a greater need for peer approval

may be particularly responsive to a leader. A future study that accesses information about the

perpetrators' psychological characteristics (e.g., previous convictions for violence) alongside the

sequential information about offense behaviors would be well placed to provide a more fine-

grained analysis of the group dynamic and other hypotheses. While our findings reflect the

relevance of each account at the aggregate level, an individual-level analysis may reveal a

picture whereby different explanations have more or less explanatory value depending on

offender background (cf. Taylor, Bennell, & Snook, 2002).

Future research studies should seek the views of the perpetrators on the potential

mechanisms for non-sexual violence explored in this paper. Through suspect interviews,

researchers could assess whether suspects perceive their behavior to be in response to victim

behavior, and their perceptions of the dynamics between group members and their role in the

offense. Da Silva et al.'s (2018) recent study of interviews conducted with 25 convicted

offenders of multiple perpetrator rape has started to address this knowledge gap although it

focuses more generally on their involvement and role in the offense rather than their use of non-

sexual violence during the offense *per se*. These offenders reported the important role of peer

influence in their offending: they gave examples of autocratic leadership as well as leaders

leading by example, modelling others' behavior, feeling pressure to conform, and being afraid of

the consequences of non-conformity.

Clinical Implications

We found that followers were influenced by the behavior of the group's leader, *and* that

the followers' behavior reinforced the leader's behavior. Etgar (2013) has argued that it is

important for the therapist to be aware of such influences when planning therapeutic efforts

where offenders are being treated together, not least because group interaction during the rape

can inform the therapist of group members' needs, beliefs and attitudes towards others. Similarities have been observed between the group dynamics in therapy and those reported during the rape(s) (Etgar & Ganot-Prager, 2009). Understanding group dynamics can therefore help a therapist anticipate interactions likely to emerge during group therapy. Etgar (2013) has argued that it is beneficial to treat offenders from the same group rape together because they share knowledge of the history, norms, behaviour and relationships within the group, which can assist in the therapeutic process. However, she advises against different group members joining the therapeutic group at the same time: one member needs to become an established therapeutic group member before another member joins.

In terms of interventions for perpetrators of MPSO, adolescence is a time defined by peer influence. Thus, in terms of therapeutic interventions to tackle *negative* peer influence, whether that comes from the leader or from followers, therapeutic approaches that encourage assertiveness and self-control, as well as the use of prosocial mentors and interventions targeting peer influence and decision-making are recommended (da Silva et al., 2018). Evaluations of such interventions have reported their success in reducing delinquency in children and adolescents (Piquero, Jennings, & Farrington, 2009; Sullivan & Joliffe, 2012).

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Table 1

Frequencies of perpetrator and victim behaviors within each quadrant of the circumplex model.

Circumplex Quadrant	Frequency of Occurrence	
	Perpetrator	Victim
Cooperation	336 (14%)	232 (23%)
Dominance	1355 (58%)	591 (57%)
Hostility	406 (17%)	52 (5%)
Submission	251 (11%)	156 (15%)

Note: There were 71 victims and 189 perpetrators involved in the offenses.

Dominance
Perpetrators: Blindfolding, gagging,
binding, weapon use, disguise,
surprise attack, conditional threats

Victim: Struggling, giving orders, run
away, verbal help-seeking, re-dresses,
directly declines, walks away

Cooperation
Perpetrators: Compliments,
apologises, implies knowing, self-
disclosure, extends time, kissing

Victim: Negotiation, pleading, crying,
requests behavior, justifies behavior,
Comments on conversation

Hostility
Perpetrators: Mocking, any violence,
profanity, anal penetration, fellatio,
unconditional threats, ejaculation

Victim: physical violence, insults

Submission
Perpetrators: Confidence approach,
minimisation, lets go, unties victim,
removes gag, gives information

Victim: obeys orders, no resistance,
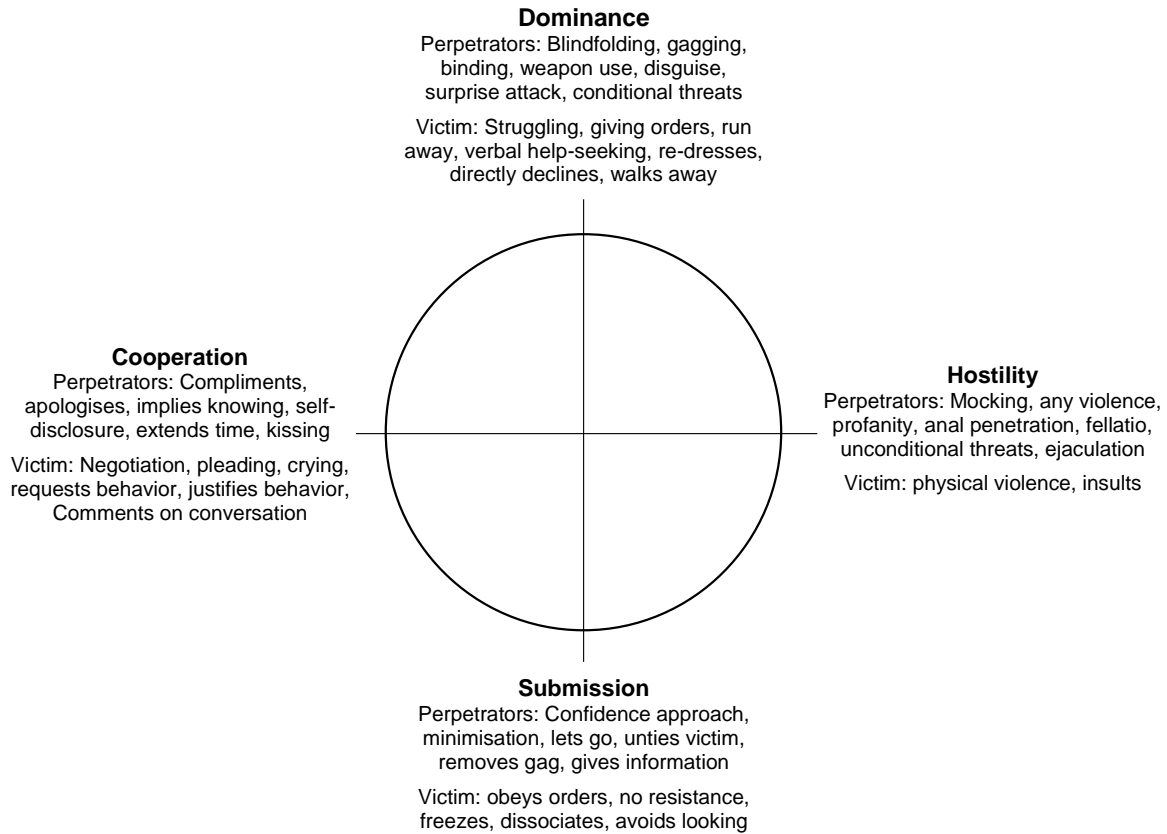freezes, dissociates, avoids looking

Figure 1: A diagram showing the quadrants of the interpersonal circumplex and the
corresponding victim and perpetrator behaviors

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