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ORIGINAL ARTICLE

Does Controlling Behavior Predict Physical Aggression and Violence to Partners?

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Abstract Using data obtained from women's shelter residents, male and female students, and male prisoners, this study investigated the association between non-violent controlling behaviors, physical aggression, and violence towards a spouse (N=264). It was predicted that only men and women involved in intimate terrorism (Johnson, *Violence Against Women*, 11(12):1003–1018, 2006) would use controlling aggression, and that physical aggression used by those involved in situational couple violence would be unrelated to controlling behavior. Contrary to predictions derived from Johnson's theory, regression analysis showed that control accounted significant proportions of the variance in the use of physical aggression for all three relationship categories. Some support was provided, however, as it was found that the pattern of both interrelationships of the five types of controlling behaviors, and control and physical aggression, supported Johnson's distinction.

Keywords Coercion · Physical aggression · Violence · Relationships · Johnson · Typologies

The nature of relationship aggression is a crucial issue for researchers. The apparently conflicting findings of traditional feminist (e.g. Dobash and Dobash 1979; Yllö 1994) and family violence (e.g. Straus 1979) perspectives have led to much debate within the literature (e.g. Dobash et al. 1992). Johnson (1995) sought to reconcile the findings of feminist and family violence researchers. He proposed that the apparent conflict was due not to the methodology used by each perspective, but by the populations sampled. Johnson (1995) argued that among the representative samples of married, cohabiting or dating couples typically studied by family conflict researchers, physical aggression was likely to be mutual, not to be escalated or associated with serious consequences, and to be unrelated to non-violent controlling behavior by the individuals concerned. He characterized such aggression as being the result of occasional angry episodes by one or both partners, and labelled it "common couple violence". In contrast, among the samples obtained from women's refuges or treatment programs for violent men, violence would be predominately one-sided (by men), would escalate in severity over time, and be associated with serious physical and psychological consequences. Crucially, such a pattern of physical aggression, termed "patriarchal terrorism", would be associated with a range of other behaviors indicative of a need to control the partner by violent and non-violent means alike.

Johnson (1995) argued that the two forms of aggressive relationship, 'patriarchal terrorism' and 'common couple violence' were distinct. Common couple violence was described as "the dynamic is one in which conflict occasionally gets 'out of hand', leading to 'minor' forms of violence, and more rarely escalating into serious, sometimes life-threatening, forms of violence" (Johnson 1995: 283). Patriarchal terrorism was defined as "…a product of patriarchal traditions of men's right to control 'their' women, is a form of terroristic control of wives by their husbands that involves the systematic use of not only violence, but economic subordination, threats, isolation, and other control tactics" (p.282). The heart of the distinction Johnson sought to make was that patriarchal terrorism was not merely a more extreme form of common couple violence, but instead a qualitatively different phenomenon. Patriarchal terrorism was believed to be evident in data from police and hospital records, and from women's

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accounts of men's violence taken from shelters. These accounts converged to paint a picture of frequent male physical aggression towards women, who in turn were at substantial risk of injury. Common couple violence was apparent in the responses obtained from non-selected samples such as the general population and undergraduates. These respondents told of low frequency aggression perpetrated by men and women, which rarely resulted in injury.

These two types of relationship aggression differed on dimensions other than frequency of physical aggression. Johnson identified escalation of physical aggression as an area of contention between family violence and feminist researchers. Walker (1989) encapsulated the feminist position on escalation when she wrote "violence between intimate partners always gets worse…" (p.697). However, family violence research typically finds no such pattern of escalation: indeed there is some evidence from longitudinal studies that violence actually decreases over the course of a relationship (e.g. Morse 1995; O'Leary et al. 1989). Another area Johnson considered would discriminate between patriarchal terrorism and common couple violence was the use of controlling behaviors. Johnson (1995: 287) stated "It is important not to make the mistake of assuming that this pattern of general control (characteristic of patriarchal terrorism) can be indexed simply by high rates of violence". Johnson predicted that the patriarchal terrorist would use a combination of controlling behaviors, of which violence is but one tool, to control his partner. Partners in the common couple violence groups in contrast, were not believed to use physical aggression within a general control framework. Therefore Johnson argued that this type of physical aggression would not form part of a general pattern of control.

In seeking empirical support for his distinction, Johnson re-analyzed data collected by Frieze, to classify individuals as using either patriarchal terrorism or common couple violence. Frieze's data came from interviews with known female victims of domestic assault and a matched sample of women from the same neighbourhood (Frieze 1983; Frieze and Browne 1989; Frieze and McHugh 1992). Johnson used the data on the female respondents' frequency of their own and their reports about their partner's use of seven types of controlling behavior. Johnson then entered the data from the women for each of these measures into a cluster analysis. Using Euclidean distance as the measure of dissimilarity, a two-cluster was found to be optimal. One cluster had a relatively high average on all seven of the controlling behaviors, and at the individual level each husband and wife whose scores were within this cluster range were labelled 'controllers'. The other cluster had relatively low average frequencies on all seven types of control, and so at the individual level those whose scores were in this cluster were labelled 'non-controllers'. Johnson then coded each member of the relationship as being either violent (if they used any act of partner physical aggression regardless of the level or severity) or non-violent (where they used no acts of partner physical aggression). At the relationship dyad level he then matched the individual level coding of each partner for control type (controller or non-controller) and whether they were violent or non-violent. This allowed both the female respondent and her male partner to be classified as using either controlling aggression, non-controlling aggression or no aggression (Johnson 2006).

At this point it, became clear to Johnson that his original distinction described only the behavior of one member of a relationship. Therefore, he needed to expand his definitions to include the behavior of both members of the dyad. The definitions needed to encompass all the possible combinations of controlling aggression, non-controlling aggression and non-violence that could be found using this procedure. Johnson (2006), therefore, expanded his categories of relationship aggression. Patriarchal terrorism was relabelled "intimate terrorism (IT)" to reflect the finding that women could display a profile of high levels of controlling behaviors in conjunction with physical aggression. IT was identified as when the target person (in Johnson's analysis this would be the man within the relationship) used controlling aggression and their partner used either non-controlling aggression or was non-violent.

When relationships were found where both partners used controlling aggression—essentially two Its—he termed these "mutual violent control (MVC)". In this analysis, Johnson found that partners of ITs did report using physical aggression themselves, contrary to his prediction. His prediction was based on the assumption that 'battered women' are nonviolent.

There is a dearth of research that has investigated the use of physical aggression by the partners of ITs: however, where such information has been collected, it is apparent that the victims of what would appear to be IT do report using some physical aggression themselves (Giles-Sims 1983; Graham-Kevan and Archer 2003a; Okun 1986). Therefore, where Johnson found the target person to be using non-controlling aggression and their partner to be using controlling aggression, he termed this "violent resistance (VR)". Little is known of the dynamics of VR, although it is believed to be akin to self-defense (Johnson and Ferraro 2000). A relationship was classified as involving common couple violence (CCV) when there was physical aggression from one or both members of the dyad, but the aggressive individuals used non-controlling aggression.

In order to test Johnson's analysis in a mixed sex sample using measures selected or designed to test this theory, we

re-analyzed data that Graham-Kevan and Archer (2003b) had previously collected to investigate Johnson's (1995) distinction. This data contained respondents' self reported and reports about their partners' use' of acts of physical aggression, the physical and psychological consequences of this aggression, and the frequency of non-violent controlling behavior among three contrasting samples chosen to represent CCV, IT and VR (university students, prisoners, and women from shelters). A range of measures was used to assess whether the different groups fitted the predicted profile for a CCV or IT group. Analysis using first, discriminant function analysis (Graham-Kevan and Archer 2003a), and second, a method of classifying each couple's relationship according to Johnson's (1995) and Johnson and Leone's (2005) suggested profile for the two groups (Graham-Kevan and Archer 2003b), both supported the predicted cluster of attributes associated with the categories of relationship.

This paper describes further analyses of the data obtained from the samples used by Graham-Kevan and Archer (2003a, b). It moves from assessing whether groups selected to conform to the patterns show the predicted behavior profiles based on mean group differences, to asking whether within such groups at the individual level, the frequency of non-violent controlling behavior is associated with the frequency of use of acts of physical aggression and their consequences. The prediction from Johnson's analysis is that this should be the case for men and women where they are identified as perpetrating either IT or MVC as these individuals are believed to use controlling aggression. However, among the men and women who are identified as perpetrating VR or CCV, no such association would be expected as their aggression is believed to be non-controlling (i.e., unrelated to a control motive.) Therefore, it was predicted that controlling behavior would predict IT's and MVC's use of physical aggression, infliction of injuries and partner's fear. It was further predicted that controlling behavior would not significantly predict CCV's and VR's use of physical aggression, infliction of injuries and partner's fear.

Method

Participants and Procedure

Questionnaires were administered to three populations, women in a shelter (n=43), male and female students (n=113), and male prisoners (n=108). The shelter sample consisted of volunteers from Women's Aid shelters. Each shelter was approached to obtain consent to distribute questionnaires. Two hundred were posted to a total of 11 shelters in the North of England, and a total of 43 respondents returned correctly completed questionnaires (no return rate can be calculated as it is not clear how many of the 200 questionnaires sent to coordinators were actually distributed). The student sample consisted of students from Higher education establishments (University of Central Lancashire, Furness H.E. College and Charlotte Mason Teachers Training College. Two hundred and fifty questionnaires were distributed and a total of 113 completed questionnaires were returned (45% return rate). The prison samples consisted of inmates incarcerated in two prisons in the North of England; HMP Haverigg (a category C, low security, all male prison) and HMP Frankland (a category B, medium security, all male prison). One hundred and fifty questionnaires were delivered to the prisons and these were distributed, of which 108 were returned (72% return rate). Each respondent in all three populations was required to self complete the questionnaire and place it in a sealed prepaid envelope which were then returned to the authors. All samples involved the respondent only, reporting on their own and their partners' behaviors.

The age of the participants ranged from 16 to 65 years with a mean age of 33 years (shelter=32, student=30, prisoners=36). The partners of the participants had an age range of 16 to 69 years with a mean age of 33 years (shelter=32, student=40, prisoners=34). The length of relationships ranged from 1 to 504 months with a mean of 104 months (shelter=90, student=117, prisoners=99). At the time of completing the questionnaire 38% described themselves as single (shelter=23, student=23, prisoners=26), dating 20% (shelter=18, student=26, prisoners=30), married/living together 22% (shelter=23, student=42, prisoners=15), and divorced/separated 33% (shelter=58, student=9, prisoners=31).

Measures

Physical Aggression A modified (replacing the word 'gun' with 'knife' for the last two items on the severe physical aggression scale) version of the CTS (Straus 1979) physical aggression scale was used to assess the occurrence of physical aggression. The respondent was required to indicate whether they, and their partner, had used any of the items listed, which were rated on a five-point scale indicating the frequency of aggressive acts, from "*never*" (0) to "*always*" (4). The first three items (*throw, slap, push*) were categorized by Straus (1979) as acts of minor violence and the last five items (*hit, kick, beat, threaten with a weapon, use a weapon*) were categorized as acts of severe violence. The mean for the minor and severe subscales were calculated. The score range for minor and severe physical aggression was 0–4.

Injuries There was one item addressing partner injury: "During these disputes, how often was your partner physically injured e.g. knocked down, bruised, scratched, cut, choked, bones broken, eyes or teeth injured?" This item was taken from the additional questions concerning injury included in the CTS used in the 1986 National Youth Survey (NYS: Morse 1995). Respondents were required to answer on a five-point scale ranging from "*never*" (0) to "*always*" (4). The score range for injuries was 0–4.

Controlling Behaviors Their use was measured by a 24-item behavioral scale, the Controlling Behaviors Scale (CBS: Graham-Kevan and Archer 2003a). The CBS was constructed using literature from the Duluth model (Pence and Paymar 1993). The CBS can be used to derive an overall controlling behaviors score, and five subscale scores, each of which involves a particular type of control tactic. The subscales are 'using economic abuse' (four items), 'using coercion and threats' (four items), 'using intimidation' (five items), 'using emotional abuse' (five items), and 'using isolation' (five items). Respondents were required to indicate whether they had used any of the behaviors listed to influence their partner. They were given a five-point scale on which to indicate the occurrence and frequency of controlling acts ranging from "*never*" (0) to "*always*" (4). The mean for each of the subscales and the overall controlling behaviour scale was calculated each with a score range of 0–4.

Data Analysis

Johnson (1999) and Graham-Kevan and Archer (2003b) used an "artificially constructed" sample in which all partner reports were entered into the data set as self-reports, which had the effect of doubling the apparent sample size. This technique was employed with the present study, therefore the subsample numbers are as follows: Shelter women and their partners, $n=86$; male prisoners and their partners, $n=194$; and students, $n=206$. It should be noted that all shelter data are from reports given by women, all prison data from men. The student sample was mixed sex; therefore, male and female reports could be either self-reported or partner reported behaviors.

Consistent with Johnson's method, a K-Means cluster analysis was conducted using the five types of controlling behaviors: economic, threats, intimidation, emotional abuse, and isolation, as the clustering variables. Self and partner reports were treated as separate cases. A two cluster solution was selected, using Euclidean distance as a measure of dissimilarity. The cluster membership was saved as a variable. The meaning of the two clusters is apparent by contrasting the value for the cluster centres for both clusters on each of the five types of controlling behaviors (see Graham-Kevan and Archer 2003b for means and standard deviations). The two clusters were named 'high' and 'low' control. The high controllers, on average, used each type of controlling behavior at least 3.5 times more frequently than low controllers. In order to classify the type of aggression used physical aggression was treated as a discrete variable, with those who had used *any* act of aggression being classed as physically aggressive.

Using each case's classification on the level of controlling behaviors used and whether they used any physical aggression, each individual was coded as being either non-violent, using non-controlling physical aggression, or controlling physical aggression. If neither party used any physical aggression, the relationship was called non-violent. Dyads where only non-controlling physical aggression was used (by one or both partners) were labelled common couple violence (CCV). Dyads where the target person used non-controlling physical aggression and their partner used controlling physical aggression were labelled violent resistance (VR). Dyads where the target person used controlling physical aggression and their partner used no physical aggression or non-controlling physical aggression were labelled intimate terrorism (IT). Dyads where both the members of the dyad used controlling physical aggression were called mutual violent control (MVC). The frequency of each type of relationship was found to be: NV 49%, IT 11%, VR 6%, MVC 3%, and CCV 28%. The individuals involved in non-violent relationships were omitted from subsequent analysis. No analysis was conducted MVC due to the small sample size.

Descriptive statistics were calculated for control, physical aggression, and a partner's injuries for each of the three types of aggressive relationship, separately for men and women. Correlational analysis was then conducted to investigate whether controlling behavior is associated with IT's and MVC's use of physical aggression and its consequences to a partner, but unrelated to CCV's and VR's aggressive behavior. The interrelationships between the different types of controlling behaviors were examined for evidence of multicollinearity ($r>0.70$. Tabachnick and Fidell 1996) using bivariate correlations. Only two of the 50 intercorrelations were at levels where multicolinearity may pose a problem. The relationships between the five types of control and physical aggression and injuries to a partner were investigated. Finally, a series of standard multiple regressions were run to investigate whether the use of controlling behaviors predicted the use of physical aggression. Standard multiple regression was adopted over more complex designs due to the small sample sizes.

Table 1 Mean frequency (and standard deviation) for the use of control, physical aggression and inflicting injuries to partners

RT	Sex	Controlling behaviors					Physical Aggression	
		Economic	Emotional	Isolation	Intimidation	Threatening	PA	PI
CCV	Men (n=88)	2.65 (2.5)	4.0 (3.5)	4.4 (3.6)	2.7 (2.5)	1.6 (2.0)	3.6 (4.6)	0.53 (0.93)
	Women (n=88)	3.2 (2.9)	3.7 (3.3)	5.0 (3.9)	2.4 (2.4)	1.5 (1.7)	4.7 (4.7)	0.41 (0.9)
	d	−0.22	0.09	−0.16	0.12	0.06	−0.61**	0.13
IT	Men (n=50)	10.1 (5.0)	14.3 (5.1)	16.2 (5.4)	13.4 (4.6)	6.6 (3.2)	18.1 (10.4)	2.4 (1.6)
	Women (n=26)	4.7 (4.3)	4.1 (4.3)	5.8 (6.4)	4.3 (5.1)	3.2 (2.1)	3.2 (7.3)	0.27 (0.67)
	d	1.11**	2.08**	1.79**	1.89**	1.17**	1.56**	1.55**
VR	Women (n=27)	4.9 (3.4)	5.4 (2.1)	3.5 (2.5)	3.1 (2.2)	3.2 (2.1)	5.1 (5.4)	0.48 (0.89)

Negative d values indicate an effect in the male direction
RT Relationship type, *PA* physical aggression, *PI* partner's injuries
$p<0.05$, $^{**}p<0.001$

Results

Descriptive Statistics

The mean frequency of use of controlling behaviors and physical aggression, and inflicting of injuries to a partner are presented in Table 1. The IT men have the highest frequency use of control, physical aggression and inflicting of injuries, which is consistent with the majority of these men originating from the shelter women's reports about their partners. The female IT perpetrators have significantly lower mean levels which again is consistent with a less severe form of IT found in nonselected samples. The CCV samples show similar levels of control and inflicting injuries to their partners, but women use significantly more acts of physical aggression than men. The VR sample demonstrated quite high levels of control and physical aggression, giving a profile more similar to IT women than CCV. As most of these women were living in a women's shelter, such a profile may not be typical of VR in a nonselected sample (see Graham-Kevan and Archer, 2003b, for more details).

Correlational Analysis

Intercorrelations Between Controlling Behaviors For male IT perpetrators nine out of the ten correlations were significant (Table 2), suggesting that in this sample individual types of control are embedded within a general control framework. For CCV men, the pattern is weaker, with only a third of the correlations reaching significance (Table 2). IT women showed a similar pattern to IT men, with eight out of ten of the correlations being significant (Table 3). CCV women showed a similar pattern to CCV men with half of the correlations reaching significant levels. Two of these were at r=0.70 or higher, which suggests some multicolinearity. VR women displayed a unique profile, with none of the ten associations being found to be significant (Table 3). The intercorrelations between different types of controlling behaviors showed that the ITs had an average intercorrelation between the controlling behaviors of r=0.48, whereas the common couple violence perpetrators had an average of r=0.23 and the violent resistance women had an average of r=0.11. The IT have a significantly stronger average interrelationship than either

Table 2 Pearson's correlations (two-tailed) for perpetration of controlling behaviors for men (*IT* n=50 and *CCV* n=88)

Control	Relationship type									
	IT men					CCV men				
	1	2	3	4	5	1	2	3	4	5
Economic	–	0.52**	0.59**	0.53**	0.61*	–	0.11	0.14	−0.18	0.08
Emotional		–	0.43**	0.68**	0.26		–	0.28**	0.42**	0.57*
Isolation			–	0.45**	0.34*			–	0.14	0.14
Intimidation				–	0.31*				–	0.34*
Threatening					–					–

IT Intimate terrorists, *CCV* common couple violence
$^{*}p<0.05$, $^{**}p<0.001$

Table 3 Pearson's correlations (two-tailed) between perpetration of controlling behaviors for women (*IT* n=26, *CCV* n=88, *VR* n=27)

Control	Relationship type														
	IT women					CCV women					VR women				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Economic	–	0.56**	0.73*	0.56*	0.14	–	0.20	0.21	0.23*	0.38*	–	0.20	0.11	0.15	0.15
Emotional		–	0.58**	0.42*	0.41*		–	0.09	0.41**	0.46**		–	0.26	0.11	0.13
Isolation			–	0.70**	0.36			–	−0.04	0.09			–	−0.09	0.32
Intimidation				–	0.55*				–	0.59**				–	−0.25
Threatening					–					–					–

IT Intimate terrorists, *CCV* common couple violence, *VR* violent resistance
*p<0.05, **p<0.001

the CCV (Z=2.06, p<0.05), and VR ((Z=1.75, p<0.05). These figures are similar to those found by Dutton and Starzomski (1997) when they compared assaultive men attending intervention projects for domestic assault (r= 0.43) and nonassaultive men (r=0.16).

Control and Physical Aggression Table 4 shows the correlations between the controlling behaviors subscales and (1) the use of physical aggression, and (2) injuries sustained by partners, for men and women, separately by relationship type. Men in the IT group showed the expected positive relationships between physical aggression and injuries inflicted and all five controlling behaviors which ranged from moderate to strong. Regression analysis (Table 5) showed that 60% of the variance in the use of physical aggression was explained by controlling behaviors, with emotional and isolation being the individually significant predictors.

Men in the CCV group showed significant weak to moderate positive relationships between their use of physical aggression and emotional, intimidation, and threatening controlling behaviors (Table 4). Regression analysis showed that controlling behaviors explained 25% of the variance in the use of physical aggression, with intimidation being the significant predictor (Table 5).

Women in the IT group showed the expected relationships between four of the five controlling behaviors and physical aggression, these positive relationships ranged from moderate to strong (Table 4). Regression analysis (Table 5) indicated that 44% of the variance was explained, with intimidation being the significant predictor. Women in the CCV group showed significant but weak positive relationships between their use of physical aggression and economic, intimidation and threatening controlling behaviors. Regression analysis showed that although 13% of the variance was explained by the five controlling behaviors, there were no individually significant predictors (Table 5). The VR women showed only one significant (but strong) association between control and physical aggression, which was economic. Regression analysis showed that 46% of the variance was explained, with economic being the significant predictor.

Control and Inflicting Injuries For the male IT, all five controlling behaviors were significantly associated with injuries to their partners, with weak to moderate positive relationships (Table 4). Regression analysis (Table 6) showed that control explained 35% of the variance in partner injuries, again emotional and isolation being the significant predictors. The CCV men showed significant

Table 4 Pearson's correlations (two-tailed) between perpetration of physical aggression (PA) and partner's injuries (PI) and controlling behaviors

RT	Sex	Controlling behaviors									
		Economic		Emotional		Isolation		Intimidation		Threatening	
		PA	PI	PA	PI	PA	PI	PA	PI	PA	PI
CCV	Men (n=88)	−0.03	0.05	0.33**	0.40**	0.03	0.11	0.45**	0.48**	0.33**	0.18
	Women (n=88)	0.22*	0.09	0.10	0.17	0.02	0.17	0.31**	0.41**	0.32**	0.41**
IT	Men (n=50)	0.62**	0.49**	0.66**	0.31*	0.61*	0.48**	0.52**	0.40**	0.42**	0.55**
	Women (n=26)	0.51**	0.03	0.35	0.24	0.46*	0.12	0.60**	0.39	0.42**	0.39*
VR	Women (n=27)	0.63**	0.45*	0.26	0.19	0.22	0.31	0.18	0.11	0.01	−0.08

RT Relationship type, *PA* physical aggression, *PI* partner's injuries
*p<0.05, **p<0.001

Table 5 Standard multiple regression of men's and women's use of controlling behaviors onto their use of physical aggression

RT	Sex	Sign. predictors	Beta	*t*	Sign. *t*	R^2
CCV	Men (n=88)	Intimidation	0.20	3.34	0.001	0.25
	Women (n=88)	No sign predictors	–	–	–	0.13
IT	Men (n=50)	Emotional	0.28	3.17	0.003	–
		Isolation	0.23	2.45	0.019	0.60
	Women (n=26)	Intimidation	0.61	2.24	0.036	0.44
VR	Women (n=27)	Economic	0.61	3.60	0.002	0.46

RT Relationship type, *CCV* common couple violence, *IT* intimate terrorism, *VR* violent resistance

associations between inflicting injuries to their partners and emotional and intimidating controlling behaviors. Regression showed that 31% of variance was explained, with intimidation again being the significant predictor.

For the female IT, only one controlling behavior, threatening, was moderately significantly associated with injuries to their partners (Table 4), and regression analysis (Table 6) indicated that controlling behaviors did not significantly predict partner injuries. The CCV women showed moderate significant associations for intimidating and threatening controlling behaviors and inflicting injuries to their partners. Regression showed that 27% of variance was explained, with threats and intimidation being the significant predictors. The VR women showed only one significant association between control and partner injury, economic, which was strong: 33% of variance was explained by controlling behaviors, with economic being the significant predictor.

Discussion

Previous analysis had found that the sample groups displayed profiles, based on mean differences on the measures used that differed significantly (Graham-Kevan and Archer 2003a, b). However, at an individual level, the use of controlling behaviors predicted physical aggression and violence both for the individuals characterized as "intimate terrorists (IT)" (as predicted), and among those who were categorized as "common couple violence (CCV)" and "violent resistance (VR)" perpetrators. This second relationship would not have been predicted by Johnson's theory, since in these individuals, aggressive behavior was not believed to be control motivated (Kelly and Johnson 2008).

Johnson's relationship types were similar for both men and women, which supports his central contention that it is the type of relationship rather than the sex of the perpetrator/s that is the distinguishing feature. Indeed, Johnson stated that intimate terrorist (and common couple violence) partner aggression can be found in not only male to female physically aggressive relationships, but also in female to male. Additionally, this type of partner aggression can be found in gay and lesbian relationships (Johnson and Ferraro 2000). However, if both men and women use intimate terrorism and common couple violence, it leads one to question why Johnson has chosen to exclude female perpetrators from his analyses (e.g. Johnson 1999; Johnson and Leone 2005).

Although the association between control and physical aggression was found in all three relationship types, there were differences in their patterns of intercorrelations, which lent some support for Johnson's distinction. The intercorrelations between different types of controlling behaviors showed that the ITs had the highest intercorrelation of all groups which replicates Dutton and Starzomski's (1997) finding. Further similarities are also apparent. Dutton and Starzomski (1997:74) found that the assaultive men showed a similar pattern to the ITs in the present study, which they suggest demonstrates an "empirically interrelated constellation of power and control tactics". This suggests that such men use all types of controlling behavior together. The CCV perpetrators were similar to the Dutton and Starzomski's nonassaultive men, with a small cluster of intercorrelations, which did not manifest a broad pattern of interrelationships. The VR women showed no significant interrelationships, suggesting that their use of control may be context specific and unrelated to any wider pattern of relationship control.

Table 6 Standard multiple regression of men's and women's use of controlling behaviors onto their partner's injuries

RT	Sex	Sign. predictors	Beta	*t*	Sign. *t*	R^2
CCV	Men (n=88)	Intimidation	0.38	3.56	0.001	0.31
	Women (n=88)	Threats	0.30	2.32	0.023	–
		Intimidation	0.30	2.47	0.016	0.27
IT	Men (n=50)	Emotional	0.28	3.17	0.003	–
		Isolation	0.23	2.45	0.019	0.35
	Women (n=26)	No significant predictors	–	–	–	0.27
VR	Women (n=27)	Economic	0.44	2.35	0.028	0.33

RT Relationship type, *CCV* common couple violence, *IT* intimate terrorism, *VR* violent resistance

The IT men and women showed the classic profile of the controlling violent man, most of the five types of controlling behaviors were associated with their physical aggression and violence. Their use of physical aggression was associated not only with overt controlling behaviours, such as intimidation and threats, but also with undermining their partner's self-image, and restricting their personal and economic freedom. The VR women and CCV individuals did not show this diverse range of associations. The only significant relationship between physical aggression and violence for the VR was for economic control. Although a similar relationship was found for the CCV, the association for the VR women was stronger. This may be an artefact of the sampling procedure used. Most (70%) of the VR came from the shelter sample (Graham-Kevan and Archer 2003b). It is therefore likely that these women needed to control the economics of their relationship in order to have sufficient funds to leave the abusive relationship and support themselves and their children. If this is the case, it is inaccurate to suggest that they were using "controlling" physical aggression and violence.

The distinction between VR and CCV women does not support the claims of those who have sought to frame women's aggression and violence as inherently defensive (e.g., Dobash et al. 1992), although this confusion is understandable when their sampling techniques are examined. Johnson (1995) proposed that different sampling strategies employed by feminist and family conflict researchers may have led to unwarranted generalizations on both sides, and the present findings supports that view. More contemporary feminist theorists have found that in non-selected samples, control and aggression are associated for both men and women (e.g., Rogers et al. 1996).

The CCV individuals showed the strongest associations between overt controlling behaviors (intimidation and threats) and physical aggression and violence. It is possible that of the five types of controlling behaviors, these are more likely to be used in a conflict situation and so may be situation-specific rather than general controlling behaviors. This interpretation would also be in accordance with both Johnson (1995), and with family conflict researchers, such as Stets (1991, 1993), who adopted a conflict-orientated approach to control in relationships, concluding: "…when one controls another in intimate relationships, the goal is to maintain a certain level of control over a situation" (Stets 1993: 683).

A limitation of the present study was the use of an artificially constructed dataset. This method was necessary to allow Johnson's (1999) categorization to be replicated. It also allowed relationships to be classified in a dyadic way in the absence of couple data. This is problematic however, as it violates the assumptions of independence, and so where possible couple data should be collected. This was not possible for the present study as all data needed to be collected in the same way. Getting couple data from incarcerated men is very difficult in UK prisons and it would be unsafe to attempt to collect couple data from women who were living in shelters, therefore no couple data was collected from any of the participants. Therefore, where it is not possible to collect couple data caution should be exercised when interpreting the results. Further, this classification depended on frequencies of use of controlling behaviors; therefore, as self reports are lower than partner reports (Archer 1999), cases deriving from reports about partners would be more likely to be classified as 'high control' and this, in turn, would affect their relationship category. This should be borne in mind when interpreting the results. For the student sample this will not have any overall effect as this was a mixed-sex sample. Although the shelter sample was all women research has found that battered women and their violent spouses tend to agree on the frequency of violence of the male. The effect of the prison sample is unknown; this sample was all male so could have inflated the female partner scores. However, there is little research on the reliability of reports of partner violence from incarcerated men. There were similar numbers of men and women overall and, therefore, analysis on the bases of sex should not have been confounded by this.

With the above caveats, the implications of these findings are that the link between control and physical aggression is not just a male characteristic, as implied by traditional feminist and evolutionary analyses (Dobash et al. 1992). They would seem to lend more support to a gender-neutral view of the use of physical aggression in partners. If men and women are found to use physical aggression and controlling behaviors in a similar way, then the factors that lead to aggressive behavior may be found the personality of the individual concerned (e.g., Dutton 1995: Dutton et al. 1996). Such explanations are more parsimonious than those that suggest a separate aetiology for men's and women's partner violence.

These findings suggest a need to differentiate between intimate terrorism and common couple violence when deciding on appropriate interventions for domestic violence offenders. Both intimate terrorists and common couple violence perpetrators may require interventions that target anger control and conflict resolution skills Anger is known to be associated with the perpetration of partner aggression (Jacobsen and Gottman 1998), particularly where perpetrators are suffering from borderline personality disorder (Dutton 1998), which typically describes at least half of severe batterers found in treatment programs (Holtzworth-Munroe and Stuart 1994). Further, anger has been found to mediate the link between insecure attachment and partner violence (Lafontaine and Lussier 2005), and between witnessing family violence and perpetrating dating violence

(Wolf and Foshee 2003). This may be due to higher rates of irrational thinking and cognitive biases, coupled with lower rates of anger control of partner violent men when compared to non-partner violent men (Eckhardt and Jamison 2002). Therefore, anger treatment may be appropriate for men and women who typically report anger and experience high physiological arousal (Gottman et al. 1995; Jacobsen and Gottman 1998).

Cognitive-behavioral treatments (CBT) have been found to be effective in reducing angry acting out (see Beck and Fernandez 1998; Edmondson and Conger 1996; Tafrate 1995 for meta-analytic reviews), even in forensic populations (Novaco 1997). A particularly promising treatment is method is that designed by Novaco (1975). This approach addresses stress buffering, cognitive restructuring, arousal reduction, and behavioral skills training (Taylor et al. 2005). Once perpetrators have learned to control their anger, conflict resolution skills can then be addressed. This typically begins by identifying the process by which conflict escalates, and then identifies the processes that reduce the likelihood of conflict resolution (e.g., attempt to win rather than resolve a conflict). Hamel (2005) recommends using S.O.L.V.E. (Weisinger 1985) to help partner violence perpetrators/couples to reduce defensive and blaming responses during conflicts both of which have been identified as strongly related to the use of aggressive responses (e.g., Dutton 1995, 1999).

Intimate terrorists additionally may benefit from an adapted version of traditional gender-based interventions such the Duluth Model (Pence and Paymar 1986), which focus on the perpetrators sense of entitlement to control their partners. Its gender-based ideology, however, is brought into question by the present study's finding that both men and women can use controlling partner aggression. Future research is needed, as the limitations of the method used in the present study would need to be addressed before any firm conclusions could be drawn.

In conclusion, the present analysis has found support for Johnson's distinction between physical aggression that is used within a broad control framework (intimate terrorism) and that which is used in response to a conflict (common couple violence and violent resistance). Beyond this, the study found that it is the pattern of interrelationships that is probably the most distinctive aspect of Johnson's categories. ITs show a constellation of controlling behaviors (Dutton and Starzomski 1997) towards their partners, whereas CCV perpetrators show a limited range of controlling behavior, many of which would be consistent with winning control of an argument rather than overall control of their partner's life. The VR women, although using quite high mean levels of control, appear to use control in a situation specific manner, with the use of any type of controlling behavior being unrelated to the use of others.

References

Archer, J. (1999). Assessment of the reliability of the Conflict Tactics Scale: A meta-analytic review. *Journal of Interpersonal Violence*, *14*, 1263-1289.

Beck, R., & Fernandez, E. (1998). Cognitive-behavioral therapy in the treatment of anger: A meta-analytic analysis. *Cognitive Therapy and Research*, *22*, 63–74.

Dobash, R. P., & Dobash, R. E. (1979). *Violence against wives: A case against patriarchy*. New York: The Free Press.

Dobash, R. P., Dobash, R. E., Wilson, M., & Daly, M. (1992). The myth of sexual symmetry in marital violence. *Social Problems*, *39*, 71–85.

Dutton, D. G. (1995). Male abusiveness in intimate relationships. *Clinical Psychology Review*, *15*, 567–581.

Dutton, D. (1998). *The abusive personality: Violence and control in intimate relationships*. New York, NY, US: Guilford Press.

Dutton, D. G. (1999). Traumatic origins of intimate rage. *Aggression and Violent Behaviour*, *4*, 431–447.

Dutton, D. G., & Starzomski, A. J. (1997). Personality predictors of the innesota power and control wheel. *Journal of Interpersonal Violence*, *12*, 70–82.

Dutton, D. G., Starzomski, A. J., & Ryan, L. (1996). Antecedents of abusive personality and abusive behavior in wife assaulters. *Journal of Family Violence*, *11*, 113–132.

Eckhardt, C., & Jamison, T. R. (2002). Articulated thoughts of male dating violence perpetrators during anger arousal. *Cognitive Therapy and Research*, *26*, 289–308.

Edmondson, C. B., & Conger, J. C. (1996). A review of the efficacy for individuals with anger problems: conceptual, assessment and methodological issues. *Clinical Psychology Review*, *16*, 251–275.

Frieze, I. H. (1983). Investigating the causes and consequences of marital rape. *Signs*, *8*, 532–553.

Frieze, I. H., & Browne, A. (1989). Violence in marriage. In L. Ohlin, & M. Tonry (Eds.) *Family violence, vol. 11* (pp. 163–218). Chicago: University of Chicago Press.

Frieze, I. H., & McHugh, M. C. (1992). Power and influence strategies in violent and non-violent marriages. *Psychology of Women Quarterly*, *16*, 449–465.

Giles-Sims, J. (1983). *Wife battering: A systems theory approach*. New York: The Guilford Press.

Gottman, J. M., Jacobson, N. S., & Rushe, R. H. (1995). The relationship between heart rate reactivity, emotionally aggressive behavior, and general violence in batterers. *Journal of Family Psychology*, *9*, 227–248.

Graham-Kevan, N., & Archer, J. (2003a). Physical aggression and control in heterosexual relationships: The effect of sampling. *Violence and Victims*, *18*, 181–198.

Graham-Kevan, N., & Archer, J. (2003b). Intimate terrorism and common couple violence: A test of Johnson's predictions in four British samples. *Journal of Interpersonal Violence*, *18*, 1247–1270.

Hamel, J. (2005). *Gender inclusive treatment of intimate partner abuse: A comprehensive approach*. New York: Springer.

Holtzworth-Munroe, A., & Stuart, G. L. (1994). Typologies of male batterers: Three subtypes and the differences among them. *Psychological Bulletin*, *116*, 476–497.

Jacobsen, N., & Gottman, J. (1998). *When men batter women*. New York: Simon & Schuster.

Johnson, M. P. (1995). Intimate terrorism and common couple violence: Two forms of violence against women. *Journal of Marriage and the Family*, *57*, 283–294.

Johnson, M. P. (1999). Two types of violence against women in the American family: Identifying intimate terrorism and common couple violence. Paper presented at the *Annual Meetings of the National Council on Family Relations*, Irvine, CA, November 1999.

Johnson, M. P. (2006). Conflict and control: Gender, symmetry, and asymmetry in domestic violence. *Violence Against Women*, *12*, 1003–1018. November.

Johnson, M. P., & Ferraro, K. J. (2000). Research on domestic violence in the 1990s: Making distinctions. *Journal of Marriage and the Family*, *62*, 948–963.

Johnson, M. P., & Leone, J. M. (2005). The differential effects of intimate terrorism and common couple violence: Findings from the National Violence Against women Survey. *Journal of Family Issues*, *26*, 322–349.

Kelly, J. B., & Johnson, M. P. (2008). Differentiation among types of intimate partner violence: Research update and implications for interventions. *Family Court Review*, *46*(3), 476–499.

Lafontaine, M., & Lussier, Y. (2005). Does anger towards a partner mediate and moderate the link between romantic attachment and intimate violence. *Journal of Family Violence*, *20*, 349–361.

Morse, B. J. (1995). Beyond the conflict tactics scale: Assessing gender differences in partner violence. *Violence and Victims*, *10*, 251–272.

Novaco, R. W. (1975). *Anger control: The development and evaluation of an experimental treatment*. Heath, Lexington, MA, USA.

Novaco, R. W. (1997). Remediating anger and aggression with violent offenders. *Legal and Criminal Psychology*, *2*, 77–88.

Okun, L. (1986). *Woman abuse: Facts replacing myths*. Albany: State University of New York Press.

O'Leary, K. D., Barling, J., Arias, I., & Rosenbaum, A. (1989). Prevalence and stability of physical aggression between spouses: A longitudinal analysis. *Journal of Consulting and Clinical Psychology*, *57*, 263–268.

Pence, E., & Paymar, M. (1986). *Power and control: Tactics of men who batter*. Duluth, MN, USA: Minnesota Program Development, Inc.

Pence, E., & Paymar, M. (1993). *Education groups of men who batter: The Duluth model*. New York: Springer.

Riggs, D. S. (1993). Relationship problems and dating aggression: A potential treatment target. *Journal of Interpersonal Violence*, *8*, 18–35.

Rogers, L. E., Castleton, A., & Lloyd, S. A. (1996). Relational control and physical aggression in satisfying marital relationships. In: D. D. Cahn & S. A. Lloyd, (Eds.) *Family violence from a communication perspective* (pp. 218–239). Thousand Oaks, CA, US: Sage

Stets, J. E. (1991). Psychological aggression in dating relationships: The role of interpersonal control. *Journal of Family Violence*, *6*, 97–113.

Stets, J. E. (1993). Control in dating relationships. *Journal of Marriage and the Family*, *55*, 673–685.

Straus, M. A. (1979). Measuring intrafamily conflict and violence: The Conflicts Tactics (CT) Scales. *Journal of Marriage and the Family*, *41*, 75–88.

Tabachnick, B. G., & Fidell, L. S. (1996). *Using multivariate statistics 3rd edition*. New York: Harper Collins.

Tafrate, R. C. (1995). Evaluation of treatment strategies for adult anger disorders. In H. Kassinove (Ed.) *Anger disorders*. Washington, DC, USA: Taylor & Francis.

Taylor, J. L., Novaco, R. W., Gillmer, B. T., Robertson, A., & Thorpe, I. (2005). Individual cognitive-behavioral anger treatment for people with mild-borderline intellectual disabilities and aggression: A controlled trial. *British Journal of Clinical Psychology*, *44*, 367–382.

Walker, L. E. A. (1989). Psychology and violence against women. *American Psychologist*, *44*, 695–702.

Weisinger, H. (1985). *Dr Weisinger's anger workout book*. New York: Quill.

Wolf, K. A., & Foshee, V. A. (2003). Family violence, anger expression styles, and adolescent dating violence. *Journal of Family Violence*, *18*, 309–316.

Yllö, K. A. (1994). Through a feminist lens: Gender, power, and violence. In: R. J. Gelles & D. R. Loseke (Eds.) *Current controversies on family violence* (pp. 47–62). Newbury Park, CA: Sage.