

The Associations Between Negative Relating and Aggression in the Dating Relationships of Students From Greece

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The study examined the prevalence rates and severity of four aspects of dating aggression (physical assault, injury, sexual coercion, and psychological aggression) and their associations with negative relating tendencies in a convenience sample of 247 university students from Greece. A high proportion of the students were both aggressors and victims of aggression by their partners. Prevalence and chronicity of the majority of the types of aggression were higher for male than for female students. There were few gender differences in the prevalence of being a victim of aggression. Although, as predicted, both aggressors and victims had higher negative relating scores than those who were neither aggressors nor victims, few of the differences were statistically significant. However, injury, sexual coercion, and severe assault were significantly correlated with relating from a position of relative strength (upperness). Being injured was significantly correlated with relating from a position of relative weakness (lowerness).

KEYWORDS: relating theory; aggression in dating relationships; physical assault; injury; sexual coercion; psychological aggression

The study was prompted by the lack of research on the prevalence of various types of aggression within the dating relationships of college students from Greece. The degree to which there are gender differences in the rates of perpetrating or experiencing various types of aggression in these dating relationships is also a focus for the current research. Finally, although it has been theorized that maintaining dominance is a motive for engaging in aggression within a romantic relationship, there is a dearth of research on the negative relating characteristics of male and female students who either abuse or are abused by their dating partners; this study proposes to fill that gap by focusing on the romantic relationships of college students from Greece.

Since the 1980s, high rates of dating aggression have been found in many student samples across the world (Stets & Straus, 1989; Sugarman & Hotaling, 1989). Straus (2001) studied 8,666 students at 31 universities in 16 countries and found that 25% of the males and 28% of the females admitted to assaulting a dating partner over a 12-month period; about one-quarter of these assaults resulted in an injury, and 2% of these were severe enough to require medical attention. More recently, in a separate sample of 13,601 students at 68 universities in 32 countries, Straus (2007) reported an even higher rate of dating aggression. Almost a third of both male and female students had physically assaulted a dating partner in the previous year.

Currently, a growing body of research reveals that aggression by females is more prevalent than was previously thought. Many studies of the extent of intimate partner aggression in Western and non-Western countries have concluded that the same proportion of females and males report being aggressive in their romantic relationships (e.g., Harned, 2001; Straus, 2001). Fiebert (2009) has assembled a bibliography of 271 scholarly accounts, with an aggregated sample size exceeding 365,000 participants. He demonstrated that females are as physically aggressive or more aggressive than males in their relationships with their spouses or male partners. In a meta-analysis of 552 reports from around the world, Archer (2000) also found that relatively equal numbers of males and females had committed one or more acts of physical aggression. Although males were more likely to have inflicted an injury, females were more likely to have been injured by a partner. Some studies have even found females to be slightly more aggressive than males. Straus (2001) found the rate of aggression to be higher for females than males in 21 out of 31 universities. A similar result with regard to gender (18 out of 31 had higher rates of aggression for females than males) was reported for severe assaults. Capaldi and Owen (2001) reported more females than males (13.2% vs. 9.4%) to have been frequently physically aggressive toward their partners, but there were equal rates of inflicting injury. However, more females than males (13% vs. 9%) had been physically injured by their partners at least once. She and her colleagues (Capaldi, Kim, & Shortt, 2007) later found that these gender differences declined with age; although the females' rate of initiating physical aggression was higher than the males' during late adolescence and young adulthood, in early adulthood (mid-20s) the rate was about equal.

In Greece, the most extensive study of dating aggression was conducted by the Research Center of Equality (2003). This study aimed to register the incidence of male-to-female domestic violence in a sample of 1,200 females aged 18 to 60 years. Results indicated that 56% of the females suffered psychological aggression, 3.6%

suffered physical assault, and 3.5% suffered sexual coercion. This study was limited, however, in that it examined only the victimization rates reported by Greek women. Recent data that include reports of victimization and perpetration of both men and women suggest that aggression in dating and married couples' relationships is frequently bidirectional or mutual (Capaldi & Owen, 2001; Capaldi, Shortt, & Crosby, 2003; Langhinrichsen-Rohling, Neidig, & Thorn, 1995; O'Leary et al., 1989). Straus (2007) has also concluded that the predominant pattern in dating couples where aggression has occurred is for both partners to be aggressive. Thus, the current study includes both Greek men and women in relationships and examines their reports of engaging in and experiencing aggression in their dating relationships.

The prevalence of sexual coercion and psychological aggression in dating relationships around the world has not received as much attention in the literature as the occurrence of physical assault and injury. However, the existing data suggest that the rate of sexual coercion in college and community samples is quite substantial. For example, Spitzberg (1999) estimated the prevalence of sexual coercion across 120 studies that involved over 100,000 subjects. Nearly 5% of the males claimed to have raped their partners; nearly 13% of the females and over 3% of the males claimed to have been raped, and about 25% of both the female and the males had claimed to have been both the victims and the perpetrators of sexual coercion. Abrahams, Jewkes, Hoffman, and Laubsher (2004) examined the prevalence of forced sex by 1,368 males against their female intimate partners. Their reported rate of sexual assault was 7.1%.

With regard to gender differences, in a sample of 481 college students, Hines and Saudino (2003) found that a higher proportion of males than females committed one or more acts of sexual coercion in the past year (29% vs. 13%), but there were no sex differences in reports of sexual victimization. On the other hand, Harned (2001) found that female college students were more likely to report having experienced sexual victimization than were male college students.

Psychological aggression has also been reported to be prevalent in the dating relationships of college students, with female perpetration rates exceeding those of males (Hines & Saudino, 2003; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Similarly, Harned (2001) reported that males were more often the victims of psychological aggression than females.

Some studies on the etiology of partner aggression maintain that males are aggressive against females as a means of controlling and dominating them (Hamberger & Guse, 2002) but that females are aggressive against males primarily in self-defense (Saunders, 1986). However, several other studies have found dominance or control by either partner to be associated with aggression (Sugihara & Warner, 2002). Straus has conceptualized dominance as a departure from an egalitarian relationship (i.e., when one partner is "in charge"/has the authority and/or is restrictive toward his or her partner and/or disparaging toward his or her partner). Contrary to prevailing theory, Straus (2007) showed that the mean dominance score was higher for females than males in 24 of the 32 nations that he studied.

Straus's (2007) belief that dominance is a predisposing factor for aggression led us to consider examining the negative relating characteristics of students who have been aggressive or who are the victims of aggression by their romantic partners. Should they be shown to have relating characteristics that predispose them to aggressive behavior, this might open the way to more effective primary and secondary preventive strategies and treatment programs. Birtchnell's (1996) relating theory and his associated measure, the Person's Relating to Others Questionnaire (PROQ2) (Birtchnell & Evans, 2004), have particular relevance for such an approach. Relating theory provides a conceptual framework within which to define and classify the relating tendencies of the partners involved. The current study proposes to test the associations between the PROQ2, which was designed specifically to measure categories of negative relating, and engaging in or experiencing various types of aggression within a dating relationship. Previous research with this measure indicates that both patients seeking psychotherapy and prisoners in a therapeutic community have significantly higher mean PROQ2 scores than people from the community (Birtchnell & Evans, 2004; Birtchnell, Shuker, Newberry, & Duggan, 2009).

Relating theory proposes that people relate in order to attain and maintain what Birtchnell (1996) has called the four predominant states of relatedness. He has named these closeness (seeking to be involved), distance (seeking to stay separate), upperness (seeking to relate from a position of relative psychological strength), and lowerness (seeking to relate from a position of relative psychological weakness). He proposed that none of these states should be considered either better or worse than any other and that each is sought because it carries advantages for the individual. In a two-dimensional diagram, closeness and distance were represented as the two poles of a horizontal axis, and upperness and lowerness were represented as the two poles of a vertical axis. Four intermediate poles were inserted between the horizontal and the vertical ones. These were called upper close (caring for), lower close (being cared for), upper distant (giving direction), and lower distant (receiving direction). Together the eight positions formed a theoretical structure that was called the interpersonal octagon (Figure 1). Each octant of the octagon was given a two-word name, the first word of which referred to the vertical axis and the second to the horizontal one. If an octant referred only to a main pole, the term "neutral" was inserted where the word for the other pole would have been. Birtchnell proposed that we are born only with a disposition to seek out each of these states but that during the course of maturation, we need to acquire the competence to attain and maintain each of them. Competence implies acquiring the necessary psychological skills to relate appropriately. The understanding was that, because such states are advantageous, if a person cannot acquire any one of them by competent means, he or she will do so by less-than-competent means. Competent relating was called positive, and relating that falls short of this ideal was called negative. For a full description of the positive and negative characteristics of each octant, see Birtchnell (1994). A summary of these is provided in Figure 1. Theoretically, it was postulated that Straus's concept of dominance would be represented by the negative upper neutral position in Birtchnell's model.

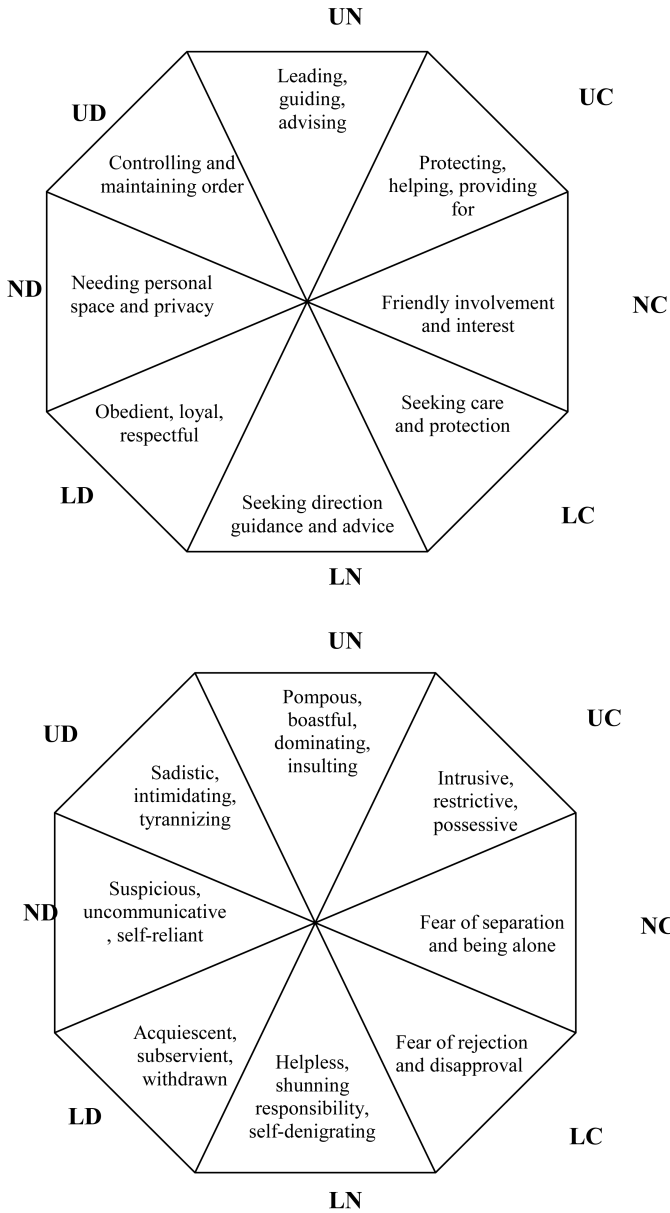


Figure 1. Examples of positive (upper diagram) and negative (lower diagram) forms of relating for each octant of the octagon.

Note. UN = upper neutral; UC = upper close; NC = neutral close; LC = lower close; LN = lower neutral; LD = lower distant; ND = neutral distant; UD = upper distant.

Source. From "The Interpersonal Octagon: An Alternative to the Interpersonal Circle," by J. Birtchnell, 1994, *Human Relations*, 47, pp. 518 and 524. Copyright © The Tavistock Institute, 1994. Reprinted with permission.

Thus, the first aim of this study was to determine the prevalence, chronicity, and severity of being aggressive and being the victim of aggression in the dating relationships of college students from Greece. Second, gender differences in the rates of engaging in or experiencing various types of dating aggression were considered. A priori, it was hypothesized that Greek college males would report perpetrating higher rates of aggression while Greek females would report experiencing higher rates of victimization in their dating relationships. Third, this study was designed to determine the degree to which engaging in or experiencing various types of aggressive behavior in one's dating relationship would be associated with the negative relating tendencies, as measured by the PROQ2. It was hypothesized that individuals who reported perpetrating aggression would score higher on the upper PROQ2 scales than non-perpetrators, while individuals who reported victimization would score higher on the lower PROQ2 scales than nonvictims. Individuals who reported neither perpetrating nor experiencing dating aggression were expected to have generally lower PROQ2 scores than those with aggression in their relationships. Since aggression might be more likely to occur in a state of detachment and since detachment is conceptually linked to the psychological condition of distance, we further expected those who were aggressive to score higher in terms of their negative distance relating scores. Since the long-term effects of aggression toward a victim may be detachment, isolation, and a feeling of coldness toward the aggressor, we also expected the victims of aggression to score higher on negative distance relating as compared to individuals who did not experience aggression. Finally, measures of social desirability and dominance were included to substantiate the validity of any obtained findings.

METHOD

The present study was conducted in Greece as part of the International Dating Violence Study (IDVS), which was carried out by members of a research consortium located at 32 universities worldwide. The IDVS's methods and procedures were reviewed and approved by the Human Subjects Protection Board of the coordinating university to ensure the protection of the rights and safety of participants. The study was carried out in two parts: In part 1, the rates, chronicity, and severity of aggressive behavior and of being a victim of aggression were examined. In part 2, the possible link between these two characteristics and categories of negative relating was examined.

Participants

Initially, there was a potential sample of 402 Greek undergraduate students taken from the psychology department of a university and the social work department of a technological educational institute. They were recruited from the classes of the first author and her colleagues. Students were not compensated for their participation. At the outset, 12 students refused to participate. Of the 390 college students who remained, 143 were excluded from this study (66 had not been in a marital or dating

relationship of at least 1 month's duration during the previous year, 17 provided no information about the duration of their relationship, and 60 provided incomplete data and/or aberrant responses, such as an unconvincingly high frequency of rare events during the previous year). Thus, the final sample consisted of 247 students (68 males and 179 females) who completed the aggression questionnaire. However, only 134 of these students (38 males and 96 females) completed the PROQ2 in part 2 of this study and were thus retained for the final analyses. All these students were heterosexual. Their median age was 21 years. The sample included 34.6% senior students and 26.4% freshmen students. There were no statistically significant differences between the students who reported on a current relationship and those who reported on a past one in terms of minor, severe, or combined rates of aggression and/or the chronicity of either perpetration or victimization of any type of aggression. However, more females than males described a current relationship rather than a previous one ($\chi^2[1] = 6.88, p = .009$), and more females than males had been in their relationship for more than 2 years rather than for 1 to 11 months as reported by males ($\chi^2[2] = 8.71, p = .013$). For 54.7% of the students, the relationship they reported on was a current one. Of these, 42.1% had been in the relationship for between 1 and 11 months, 9.7% had been in the relationship for between 1 and 2 months, and 31.2% had been in the relationship for more than 2 years. A dating relationship as opposed to a more committed one (cohabiting, engaged, or married) was reported on by 86.0% of the sample, and there was only one individual who reported on a marital relationship. In 81.6% of the relationships, there was active, sexual participation, even though 83.6% of the partners were not living with or had never lived with the other.

The Measures

The standard questionnaire booklet of the IDVS comprised (a) a cover sheet explaining the purpose of the study and the participants' rights (i.e., anonymity, confidentiality, and voluntary participation); (b) 16 demographic questions (including gender of the participant) and questions about the characteristics of either the current dating relationship or the most recent one that had lasted for 1 month or more; (c) the Revised Conflict Tactics Scales as a measure of aggression, either given or received; and (d) the Personal and Relationships Profile (PRP; Straus, Hamby, Boney-McCoy, & Sugarman, 1999; Straus & Mouradian, 1999) as a measure of "risk factors" for aggression (such as dominance) and because the measure included a scale assessing socially desirable responding. At the endmost part of the standard booklet, the local researchers could add some questions related to their own interests. In this study, the PROQ2 was included in this later section of the questionnaire booklet.

Study Procedure

All students were given the booklet and an answer sheet during a regularly scheduled class. Those who did not complete the PROQ2 were comparable with those who

did in terms of the majority of the demographic variables and all their scores on the perpetration and victimization scales. Once completed, students were instructed to place their questionnaire in a box near the exit door of the classroom, ensuring that no one knew if it had been completed. The students who chose not to participate also chose when to turn in their questionnaire to protect their privacy. A debriefing form was given to everybody at departure. It provided additional information about the study and contact information about community resources for aggression and related problems. Answer sheets were sent to the study coordinator, who later returned the data file and the scores to the investigators.

Translation of the Measures

Some demographic questions were edited to fit the circumstances of the site (e.g., the content and/or number of answer categories). For the current study, the PRP and the Revised Conflict Tactics Scales (CTS2; Straus et al., 1996) were translated into Greek by an English-speaking Greek. The translation was checked for accuracy by an independent back translator, and the “conceptual equivalence” (Straus, 1969) of the items was reviewed. Slight modifications were made to the back-translated items until agreement was reached with the study coordinator and the on-site investigators. Prior to this study, the PROQ2 had already been translated into Greek (Kalaitzaki & Nestoros, 2003) and used successfully (Kalaitzaki & Nestoros, 2006). The existing Greek version was included in the current study as is.

The CTS2

The CTS2 is a 78-item scale for measuring physical assault, injury, psychological aggression, and sexual coercion. The items are distributed randomly and are asked in pairs: one concerning the respondent’s behavior (39 items for perpetration) and one concerning respondent’s partner’s behavior (39 items for victimization). As defined by Straus, the physical assault items range from grabbing or slapping the partner to beating him or her up, burning or scalding him or her, or using a knife or gun against him or her. Physical injury was evidenced by bone or tissue damage, a need for medical attention, or pain continuing for a day or more. Psychological aggression items included both verbal and nonverbal behaviors. Sexual coercion was defined to include acts to compel the partner to engage in unwanted sexual behavior, ranging from verbal insistence to physical force.

For each item, the response choices were once in the past year, twice in the past year, three to five times in the past year, 6 to 10 times in the past year, 11 to 20 times in the past year, more than 20 times in the past year, not in the past year but it has happened before, and it has never happened. In the current study, student’s responses were then recoded to derive an index of past-year prevalence (the percentage of respondents who reported any type of either perpetration or victimization) and an index of past-year chronicity (the number of times any type of aggression had

happened for those who reported at least one instance of it). Aggression was rated according to two levels of severity, “minor” and “severe,” as detailed here. If the respondent endorsed items at both levels of severity, the items were added together to produce a “combined” score. Because severe aggression has been shown to have a different etiology (Straus, 1990), the severe score was considered separately. A typical item of each subscale is:

- Physical assault. Minor (five items): *pushed or shoved*. Severe (seven items): *used a knife or a gun*.
- Injury. Minor (two items): *had a sprain, bruise, or small cut after a fight with the partner*. Severe (four items): *passed out from being hit on head during a fight*.
- Sexual coercion. Minor (three items): *Insisted on sex (no force)*. Severe (four items): *used force to make the partner have sex*.
- Psychological aggression. Minor (four items): *insulted or swore at the partner*. Severe (four items): *called the partner fat or ugly*.

The CTS2 scales have been shown to have high levels of reliability and validity (Straus, 2004; Straus et al., 1996). In the present study, the alpha reliabilities for the perpetration scales were also high. They were physical assault = 0.85, injury = 0.94, psychological aggression = 0.67, and sexual coercion = 0.79 ($M = 0.81$, $SD = 0.11$). The alphas for the victimization scales were reasonable. They were physical assault = 0.84, injury = 0.90, psychological aggression = 0.64, and sexual coercion = 0.59 ($M = 0.74$, $SD = 0.15$). These are slightly lower than those reported for the English version (Straus, 2004; Straus and Members of the International Dating Violence Research Consortium, 2004).

The PRP

The PRP was designed to identify aggressive factors. It has 187 items, allocated to 15 “intrapyschic scales” and eight “relationship scales.” In the present study, the Social Desirability Scale (SDS; 13 items) was used to measure possible defensiveness or lack of willingness to report socially undesirable behavior, such as aggression. The Dominance Scale (Hamby, 1996) was used to measure one person’s use of his or her advantage to gain status, privilege, or control over the other (nine items). Typical items from the dominance scale are “I generally have the final say when my partner and I disagree” and “I have a right to be involved with anything my partner does.” This scale has been shown to have adequate internal consistency (Hamby, 1996). Offenders have been shown to have the highest mean dominance score, and dominance scale scores have been shown to be associated with assaulting a partner (Straus & Mouradian, 1999). In the current study, the coefficient alpha for the dominance scale was 0.60, and for the SDS, the coefficient alpha was 0.68. As expected, negative correlations were found between the SDS and the combined and severe rates and frequencies of the four perpetration and victimization scales of the CTS. The students who reported in less socially desirable ways revealed more incidents of perpetration and/or victimization. Also as expected, the dominance scale correlated significantly ($p < .01$) with physically assaulting (0.31), injuring (0.26), and sexually coercing (0.22) a partner as reported on the CTS.

The PROQ2

The PROQ2 has 96 items, which contribute to the eight scales of negative relating. These correspond to the eight negative octants of Figure 1. Each scale has 12 items, but only 10 are scored. The two unscored items of each scale concern positive relating and are included only to reduce the negative tone of the questionnaire. The item responses are “Nearly always true,” “Quite often true,” “Sometimes true,” and “Rarely true” and correspond to a score of 3, 2, 1, and 0, respectively. The maximum score for each scale is 30, and the maximum total score for the instrument is 240. A computer program produces scores that are presented both numerically and graphically. It is available from <http://www.john.birtchnell.co.uk>. The following are examples of a high loading item for each scale: upper neutral (UN): “I can be very critical of other people”; upper close (UC): “I can’t say ‘No’ when it comes to helping other people”; neutral close (NC): “I have a tendency to cling to people”; lower close (LC): “I don’t like to argue with people in case they end up disliking me”; lower neutral (LN): “I feel lost when there is no one to turn to for advice”; lower distant (LD): “I find it hard to stand up to people”; neutral distant (ND): “I do not let people get too close to me”; and upper distant (UD): “Getting my own way is very important to me.”

The Greek translation of the PROQ2 has been shown to have good psychometric properties (Kalaitzaki & Nestoros, 2003). In the 2003 study, the reliability of the scales ranged from 0.65 to 0.81 ($M = 0.73$). Four factors were extracted that were consistent with the four main poles of the octagon. Their reliability ranged from 0.71 to 0.86. The psychometric properties of the Greek instrument compared well with the properties of the instrument as reported in English studies (Birtchnell & Evans, 2004; Birtchnell & Shine, 2000).

In the present study, the coefficient alphas for the scale were as follows: UN = 0.72, UC = 0.70, NC = 0.73, LC = 0.76, LN = 0.74, LD = 0.74, ND = 0.60, and UD = 0.68 ($M = 0.71$, $SD = 0.05$). These were comparable with those obtained in the Kalaitzaki and Nestoros (2003) study. As anticipated, negative correlations were found between the SDS and the eight PROQ2 scales. The students who reported in less socially desirable ways revealed more negative relating with others. Significant correlations ($p < .001$) were also found between the Dominance Scale and two of the three PROQ2 upper scales (UD: 0.50; UN: 0.36) and the total PROQ2 score (0.36).

RESULTS

Determining the Rates and Chronicity of Perpetration and Victimization in the Dating Relationships of College Students From Greece

The first aim of this study was to examine the prevalence, chronicity, and severity of aggression, both given and received, in the dating relationships of college students from Greece. As shown in Table 1, almost a third of the students reported physically assaulting their dating partner, and about the same proportion reported being physically assaulted by their partner during the previous year. Over half these assaults, whether given or received, were severe. Nine percent of students reported injuring

TABLE 1. Prevalence and Chronicity of Reported Perpetrating Aggression and Being a Victim of Aggression by Type and Severity

Type of Aggression (CTS2)		Severity	N	n	Prevalence			Chronicity		
					P	95% CI ^a		M	95% CI ^b	
					LL	UL		LL	UL	
Perpetrating aggression against a partner										
Physical assault	Combined	225	70	31.1	25.4	37.4	17.3	10.7	23.8	
	Severe	224	40	17.9	13.4	23.4	11.9	7.0	16.8	
Injury	Combined	225	21	9.3	6.2	13.8	13.0	7.0	19.0	
	Severe	223	10	4.5	2.5	8.1	12.3	6.6	18.0	
Psychological aggression	Combined	225	179	79.6	73.8	84.3	18.5	14.7	22.3	
	Severe	223	84	37.7	31.6	44.2	6.8	4.8	8.7	
Sexual coercion	Combined	224	61	27.2	21.8	33.4	11.3	7.2	15.5	
	Severe	224	11	4.9	2.8	8.6	15.0	3.5	26.5	
Being a victim of aggression by a partner										
Physical assault	Combined	225	72	32.0	26.3	38.4	17.0	10.0	24.1	
	Severe	224	41	18.3	13.8	23.9	12.1	6.6	17.6	
Injury	Combined	225	22	9.8	6.6	14.4	12.2	6.5	17.9	
	Severe	223	10	4.5	2.5	8.1	9.9	4.8	15.0	
Psychological aggression	Combined	225	179	79.6	73.8	84.3	16.1	12.9	19.3	
	Severe	223	75	33.6	27.8	40.0	6.7	4.2	9.2	
Sexual coercion	Combined	224	91	40.6	34.4	47.2	10.0	7.4	12.6	
	Severe	224	16	7.1	4.4	11.3	8.8	3.9	13.6	

Note. N = the total number of respondents; n = the number of respondents who reported aggression; P = the prevalence percentage of perpetrating aggression or being a victim of aggression (in bold); M = mean chronicity of perpetrating aggression or being a victim of aggression (in bold); 95% CI = 95% confidence intervals; LL = lower limit; UL = upper limit.

^aCalculated using Wilson's Score Method.

their partner, and nearly 10% reported being injured by their partner. Nearly 80% admitted to being both psychologically aggressive toward their partner and also being psychologically abused by them. Nearly half the injuries and psychological aggression, whether given or received, were severe. As many as 27.2% of students reported sexually coercing their partner (5% of these coercions were severe), and 40.6% reported being sexually coerced by their partners (7.1% of these coercions were severe).

The second purpose of the current study was to consider gender differences in the rates of perpetrating and experiencing various types of aggression. Logistic regressions were used to test sex differences in the prevalence of perpetration and victimization and to control for the respondent's socially desirable responding. As

TABLE 2. Sex Differences in Reported Perpetrating Aggression and Being a Victim of Aggression by Type and Severity of Aggression and Controlling for the Social Desirability Scale Score

Type of Aggression	Severity	Prevalence (%)		Unadjusted comparison ^a			Adjusted for SDS ^b		
		Men	Women	OR	95% CI	p	aOR	95% CI	p
Perpetrating aggression against partner									
Physical assault	Combined	46.7	25.5	2.56	[1.38, 4.75]	.003	4.31	[1.66, 11.19]	.003
	Severe	28.8	13.9	2.50	[1.22, 5.11]	.012	6.46	[2.22, 18.78]	.001
Injury	Combined	21.7	5.5	4.79	[1.93, 11.91]	.001	8.80	[2.49, 31.05]	.001
	Severe	16.9	0.0	—	—	—	—	—	—
Psychological aggression	Combined	80.0	79.4	1.04	[0.50, 2.17]	.921	2.05	[0.60, 7.00]	.254
	Severe	45.8	34.8	1.58	[0.87, 2.90]	.136	3.43	[1.29, 9.10]	.013
Sexual coercion	Combined	44.1	21.2	2.93	[1.55, 5.52]	.001	2.93	[1.15, 7.49]	.024
	Severe	15.5	1.2	14.97	[3.13, 71.60]	.001	17.19	[3.05, 96.86]	.001
Being a victim of aggression by partner									
Physical assault	Combined	41.7	28.5	1.79	[0.97, 3.32]	.063	3.39	[1.35, 8.54]	.009
	Severe	27.1	15.2	2.08	[1.02, 4.26]	.044	4.74	[1.66, 13.57]	.004
Injury	Combined	20.0	5.5	4.33	[1.72, 10.90]	.002	6.86	[1.91, 84.63]	.003
	Severe	16.9	0.0	—	—	—	—	—	—
Psychological aggression	Combined	78.3	80.0	0.90	[0.44, 1.86]	.784	1.16	[0.38, 3.52]	.798
	Severe	40.7	31.1	1.52	[0.82, 2.81]	.183	1.78	[0.71, 4.49]	.218
Sexual coercion	Combined	39.0	41.2	0.91	[0.50, 1.67]	.765	0.93	[0.38, 2.28]	.875
	Severe	16.9	3.6	5.41	[1.87, 15.63]	.002	8.26	[2.23, 30.68]	.002

Note. OR = odds ratio; aOR = adjusted odds ratio; CI = confidence interval; SDS = Social Desirability Scale.

^aUsing simple logistic regression for the full sample of respondents.

^bUsing bivariate logistic regression for the subset of $n = 148$ respondents (69% of total sample) for whom SDS was available.

shown in Table 2, the SDS, which was available for 148 (69%) of the participants, was significantly related to reports of all types of perpetration and victimization, and thus this scale was included in the gender analyses.

It can be seen that significantly more males than females reported combined and severe assaults against their partner; being severely assaulted by their partner; inflicting combined and severe injury on their partner; being injured by their partner and coercing their partner (both combined and severe), and being severely coerced by their partner. Even after adjusting for SDS, males' higher rates of perpetration were retained. It was also shown that males were significantly more likely than females to perpetrate severe psychological aggression against their partner and to have been the victims of assault by their partner. There were fewer gender differences in the chronicity scores than found for the prevalence rates; these results are not presented here because of space limitations. They are, however, available from the senior author on request.

Were Participants Reporting Unidirectional or Bidirectional Aggression?

For men, in all cases, it was most common for participants who reported perpetrating aggression in their dating relationships to also report being victimized by the same type of aggression in that dating relationship. Specifically, as shown in Table 3, if sexual coercion was reported, it was reported as bidirectional 100% of the time by men. Likewise, if injury was reported as perpetrated, it was reported also as received 100% of the time by men. While bidirectional aggression was also the most typical pattern reported by women, some differences were noted. For example, 71.4% of women reported only being a victim of sexual coercion in their dating relationship, and only 14.3% reported both acts of sexual coercion perpetration and sexual coercion victimization.

TABLE 3. Prevalence (in Percentages) of Aggressors Only, Victims Only and Both, by Sex

Type of Aggression		Men			Women		
		Aggressors		Victims	Aggressors		Victims
		Only	Both		Only	Both	
Assault	Combined	16.7	6.7	76.7	19.0	27.6	53.4
	Severe	15.8	10.5	73.7	16.7	23.3	60.0
Injury	Combined	13.3	20.0	66.7	18.2	18.2	63.6
	Severe	0.0	0.0	100.0	0.0	0.0	0.0
Psychological aggression	Combined	6.0	4.0	90.0	3.0	2.2	94.8
	Severe	14.3	3.6	82.1	23.9	14.9	61.2
Sexual coercion	Combined	14.8	3.7	81.5	2.9	50.0	47.1
	Severe	0.0	0.0	100.0	14.3	71.4	14.3

Part 2: The Correlations Between Types of Aggression and Negative Relating

A priori, it was expected that individuals reporting perpetrating aggression would score higher on the upper and/or distant scales, while individuals reporting victimization would score higher on the lower and/or distant scales. Pearson product moment correlation coefficients were used to correlate the combined and severe rates of perpetration and victimization with the negative relating scores (Table 4). The correlations were performed in order to examine possible links, and as such they are reported before the primary analyses. The columns in which significant correlations are expected have been shaded. Only the correlations for the combined rates are presented in Table 4, as they are very similar to those obtained for the severe rates. Besides, only the severe assault scale correlated with few of the PROQ2 scales. Significant though low correlations were obtained possibly because of the small sample sizes, especially in some categories. Physical assault was negatively correlated with UC and positively correlated with UD. Being assaulted was negatively correlated with UC. Severe assault was correlated with UN and UD. Being severely assaulted was negatively correlated with UC and positively with UN, ND, and UD. Inflicting injury was positively correlated with UN, LC, LD, UD, and the total score. Being injured was correlated with the three lower scales (LC, LN, and LD), UD, and the total score. Sexual coercion was correlated with UN and UD. Being sexually coerced was negatively correlated with UC. Psychological aggression, either given or received, showed no significant correlations with any of the PROQ2 scales.

TABLE 4. Correlations of the Combined Perpetration Rate and the Combined Victimization Rate Against the PROQ2 Scales

Type of Aggression	Person's Relating to Others Questionnaire (PROQ2)								
	UN	UC	NC	LC	LN	LD	ND	UD	Total
Perpetration									
Assault	.11	-.23*	-.03	.07	.05	.15	.10	.18*	.01
Injury	.20*	-.10	.13	.21*	.16	.23**	.18	.21*	.28**
Psychological	.08	-.14	.00	.04	-.05	-.02	.04	.14	.02
Sexual coercion	.22*	-.17	.05	.11	.04	.11	.07	.19*	.15
Victimization									
Assault	.04	-.20*	-.07	.06	.04	.08	.09	.16	.05
Injury	.16	-.05	.05	.19*	.20*	.21*	.15	.21*	.26**
Psychological	.03	-.14	-.01	.08	-.03	.03	.09	.13	.04
Sexual coercion	.11	-.19*	-.02	-.00	.03	.13	-.00	.09	.04

Note. UN = upper neutral; UC = upper close; NC = neutral close; LC = lower close; LN = lower neutral; LD = lower distant; ND = neutral distant; UD = upper distant.

* $p < .05$ (two-tailed). ** $p < 0.01$ level (two-tailed).

Comparing the Mean PROQ2 Scores of the Aggressors and the Victims With the Scores of Those Who Were Neither the Aggressors nor the Victims of Aggression

Differences between the mean negative relating scores of the students who were aggressors and the students who were the victims of aggression and the 35 students who, in the past year, had been neither the aggressors nor the victims of aggression were examined using *t* tests for independent samples (Table 5). Because of space limitations, the detailed results and the table for the severe scores are not presented, but they are available from the senior author. For the perpetration scales, in the assault category, those who were neither aggressors nor victims scored significantly higher on UC. In the injury category, the aggressors scored significantly higher on UN, ND, UD, and the total score. In the psychological aggression category, there were no significant differences. In the sexual coercion category, the only significant result was that those who were neither aggressors nor victims scored higher on UC. Results were similar for those who were severe aggressors. In the assault category, those who were neither aggressors nor victims scored significantly higher on UC, but the assaulters scored significantly higher on UD. In the injury category, the aggressors scored significantly higher on ND. In the psychological aggression category, there were no significant differences. In the sexual coercion category, the aggressors scored significantly higher on UN.

For the victimization scales, in the assaulted category, again those who were neither aggressors nor victims scored higher on UC. In the injured category, the victims scored significantly higher on ND and UD. In the psychological aggression category, again there were no significant differences. In the sexually coerced category, as with the sexual coercion category, those who were neither aggressors nor victims scored significantly higher on UC. Similar scores were found for being severely victimized. In the assault category, those who were neither aggressors nor victims scored significantly higher on UC, and the victims scored significantly higher on ND and UD. In the injury category, the victims scored significantly higher on ND and UD. In the psychologically victimized category, there were no significant differences. In the sexually coerced category, the victims scored significantly higher on UD.

DISCUSSION

Rates of Perpetration and Victimization

In the current study, high rates of all types of perpetration were reported in Greek college students' dating relationships. These findings are in agreement with research conducted in other countries that has targeted student samples; the past-year prevalence of aggression has typically been shown to vary from 25% to 45% (Stets & Straus, 1989; Sugarman & Hotaling, 1989). These rates stand in contrast to the 10% to 15% prevalence rate for married couples. This could be as much to do with their youthfulness as with their college student status, although even when compared with married couples in the same age range, some of the rate differences remain (Stets & Straus,

TABLE 5. Means of the PROQ2 Scores for the Four Types of Perpetration and Victimization Compared With Those Who Were Neither Aggressors nor Victims

PROQ2 Scale	Control Group ^a	Perpetrating Aggression Against the Partner				Being a Victim of Aggression by the Partner			
		Physical Assault	Injury	Psychological Aggression	Sexual Coercion	Physical Assault	Injury	Psychological Aggression	Sexual Coercion
UN	14.4	15.7	18.1*	14.9	16.8	15.1	17.5	14.8	15.4
UC	22.1	18.9*	19.2	20.3	19.3*	19.3*	19.9	20.3	19.5*
NC	16.8	16.2	18.8	16.4	16.9	15.8	17.4	16.4	16.3
LC	10.2	11.0	13.9	10.5	11.4	10.9	13.6	10.6	10.4
LN	11.0	10.3	12.5	9.7	10.2	10.2	13.0	9.8	10.1
LD	8.1	9.1	11.5	7.8	8.8	8.4	11.3	7.9	8.7
ND	12.0	13.4	15.2*	12.7	13.2	13.2	14.8*	12.8	12.6
UD	12.5*	14.8	16.5*	13.7	15.0	14.6	16.5*	13.7	13.9
Total	107.1	109.4	125.7*	106.1	111.6	107.4	124.0*	106.3	106.9

^aNeither aggressors nor victims of aggression.

* $p < .05$ (two-tailed).

1989). McLaughlin, Leonard, and Senchak (1992) have found higher rates of aggression for married couples: 36% of couples reported at least one instance of husband-to-wife aggression in the past year. O'Leary (1999) found that physical aggression by males toward their female partners rose sharply at age 15 to 25, peaked at around 25 years, and declined sharply at around 35 years. The peak at age 25 may be explained by the fact that many more individuals are engaged in romantic relationships at this age than at earlier or later ages. It is also possible that students are prepared to be more honest about their aggression than are married couples or that their aggressive behavior is a manifestation of their needing to cope with living closely with another person during their transition to adulthood. It may even represent a clumsy attempt to gain intimacy. Perhaps only the less aggressive couples choose to get married, or possibly, over the course of a marriage, couples learn to get along better with each other. Schumacher and Leonard (2005) found that in a sample of 634 newly married couples, the prevalence of wife-to-husband physical aggression at the time of their marriage and at their first and second anniversaries was 48%, 45%, and 41%, respectively, while that of husband to wife aggression was 37%, 38%, and 37%. Both husband-to-wife aggression and wife-to-husband aggression were shown to decrease over the first 4 years of marriage within the same couples (Schumacher, Homish, Leonard, Quigley, & Kearns-Bodkin, 2008). The fact that such aggression is so prevalent among students might indicate that people do not need to be psychologically disturbed to behave aggressively against their dating partner. This may explain why aggression's associations with negative forms of relating was not as marked as that which has been observed in patients seeking psychotherapy (Birtchnell, 2002; Birtchnell & Evans, 2004).

Although males and females in the current study did not report on the same relationship, it would be reasonable to expect that the rate of females reporting being the victims of aggression by their partner would roughly correspond with the rate of males who admitted being aggressive toward their partner and vice versa. However, males reported higher rates of both perpetration and victimization than females. The one exception to this was that about the same proportion of females admitted to being sexually coerced as males admitted to sexually coercing them. Although the predominant pattern was for both males and females to report both perpetration and victimization (bidirectional violence), higher rates of females reported being sexually coerced than of sexually coercing their partner. The results are generally consistent with other studies (e.g., Straus, 2004) in showing, for both males and females, that both aggressive behavior and being the victim of aggression is more common than either being an aggressor or a victim alone (unidirectional violence). These findings also suggest that sexual coercion on dating relationships may be a somewhat different phenomenon.

The Negative Relating of Students Who Were Aggressors and/or Victims of Aggression

There were relatively few significant correlations between the various forms of aggression and the PROQ2 scales, and there were relatively few significant differences

between the mean PROQ2 scores of those who were aggressors or victims of aggression and those who were neither aggressors nor the victims of aggression. These results run counter to the findings of other PROQ2 studies. Birtchnell and Shine (2000), for example, showed, in a sample of prisoners, very high correlations between the lower close (LC) scale and all the major personality disorders and between certain other PROQ2 scales and specific other personality disorders, as measured by the fourth edition of the Personality Diagnostic Questionnaire. Similarly, Birtchnell and Evans (2004) showed that the mean PROQ2 scores of psychotherapy patients were significantly higher than those of nonpatients on six of the eight scales plus the total score. One might conclude from this that the aggressors were not particularly disturbed individuals and that their aggressive behavior was set within what might otherwise be considered to be normal for this particular cultural group. Furthermore, whereas aggression is likely to be largely an episodic event, committed perhaps in a fit of temper, negative relating is a more firmly established, long-term characteristic.

An unanticipated finding was the strong link that emerged between the UC scale and nonaggressive behavior. There was a significant, negative correlation between this scale and assault, being assaulted, combined and severely, and being sexually coerced, and the mean score on this scale was significantly higher for those who were neither aggressors nor victims than for those who assaulted and sexually coerced or who were themselves assaulted or sexually coerced. This finding is not entirely surprising since the UC scale does not differentiate significantly between psychotherapy patients and nonpatients (Birtchnell & Evans, 2004) or between prisoners and nonprisoners (Birtchnell et al., 2009). UC people tend not to be aggressive; rather, they tend to fuss over people in a possessive and overprotective kind of way.

There is some evidence that the other two upper scales, UN and UD, are associated with aggressive behavior in the current study. They were significantly correlated with assault, injury, and sexual coercion, and the mean scores on these two scales were significantly higher for three forms of aggression (UN and UD for injury, UD for severe assault, and UN for severe sexual coercion) than for not being either an aggressor or a victim. This is as might be expected since the typical features of UN are control and dominance and the main features of UD are tyranny and intimidation—the distant component of UD making it easier for the upper person to be cruel. There were, however, also some significant correlations between injury and two of the three lower scales (i.e., LC and LD) and, perhaps more appropriately, between being injured and all the three lower scales (i.e., LC, LN, and LD), but these findings were not carried through to the comparison of mean scores. A plausible conclusion would be that lower relaters tend to be more open to aggression than upper ones since they are inclined to be more submissive. Psychotherapy patients have very much higher LC scores than nonpatients (Birtchnell & Evans, 2004; Kalaitzaki, Birtchnell, & Nestoros, 2009) and higher LC scores than their well siblings in their relating to their parents (Kalaitzaki et al., 2009).

It is perhaps surprising that there were no significant differences between the aggressors/victims and the nonaggressors/nonvictims in respect of psychological

aggression since psychological aggression would seem likely to be associated with aggression. This might be because a very high proportion of the students admitted to both perpetrating psychological aggression and being the victim of it. It is noteworthy that the related findings of the aggressors were often similar to those of the victims of aggression. This may have been because a high proportion of students admitted to being both aggressors and the victims of aggression. Perpetration and victimization is perhaps a characteristic of a couple rather than of an individual so that when one partner is aggressive, the other frequently retaliates. O'Leary and Slep (2003) observed that one partner's physical aggression was the best predictor of the other partner's later physical aggression. Alternatively, it may be that aggressive individuals are attracted to one another. We do not know whether the participant or the partner was the prime mover in any exchange of aggression or whether the aggressive act was a defensive or a retaliatory one. In addition, we do not know the circumstances under which the aggression occurred. Furthermore, we are entirely dependent on the participant's interpretation of what actually happened. We do not know whether the negative relating was specific to the relationship described or whether the student would have behaved similarly in a relationship with a different partner. It could be that the negative relating had predisposed him or her to being the aggressor and/or the victim. Capaldi and colleagues (2003) observed that both physical and psychological aggression against the partner were stable if there was no change of partner over that period.

Limitations

The study was a cross-sectional, questionnaire study of college students. The sample was a convenience one rather than a probability one. Social science students may differ from other kinds of students. Males were underrepresented. These conclusions may not generalize to different populations. However, previous research suggests that these findings parallel those found in general population samples, apart from the higher rate of aggression in student samples and opposed to samples of married couples. Power was an issue in the current study, as there might have been insufficient numbers in some of the categories for significant findings to emerge. The nonaggressors and nonvictims were so few because aggressive behavior was so common. Another limitation of the current study is that only 54.3% of the sample completed the PROQ2. Declining to complete the PROQ2 would likely have been because it was the last item in the booklet.

Implications of the Study

Despite these limitations, university students do constitute an important sample for research on partner aggression because they have been shown to carry a high risk for such behavior. O'Leary, Malone, and Tyree (1994) have argued that the patterns manifested at this age are often well established and constitute enduring features of a relationship. The present study was the first to provide rates and frequencies

of aggression in Greek student dating couples and to also provide some initial understanding of the associations between their aggressive behavior and their negative relating. This link may partly explain why some students act aggressively toward their loved one.

Student counselors should be made aware of the findings concerning the aggressive behavior of Greek students. The counselors would face the delicate task of making it known to students that confidential help for this is at hand. Students who are inclined to conceal aggression and its consequences or be ashamed to admit that it has taken place may be difficult to approach. In counseling sessions, the issue of aggression would need to be addressed in a nonjudgmental way. The focus should be on exploring the circumstances under which couples resort to aggression and seeking alternative strategies for resolving interpersonal difficulties.

Cross-sectional and longitudinal studies (e.g., Capaldi & Kim, 2002, as cited by Capaldi, Shortt, & Kim, 2005; Lorber & O'Leary, 2002, as cited by Capaldi et al., 2005; O'Leary, 1999) have indicated that physical aggression declines over time in young couples. Fritz and O'Leary (2004) conducted a 10-year follow-up study of partner aggression in 203 New York wives. They found significant decreases of wives and husbands' physical aggression (48% and 35% at premarriage and 13% and 10% 10 years later, correspondingly) but no significant changes in psychological aggression over time.

It would be important to determine whether other types of aggressive behavior persist over time or whether aggressive relationships last as long as nonaggressive ones. O'Leary et al. (1989) found that only 51% of the males and 41% of the females who were aggressive 1 month before marriage remained aggressive 18 months later, but 15% of those who were not initially aggressive became aggressive after 18 months. A clearer understanding of the persistence, cessation, and initiation of aggression over time is warranted.

The present study was carried out with individuals rather than couples. Future studies would more usefully involve the exploration of couples so that the views of individuals and their partners could more effectively be compared. A set of measures designed for measuring such interrelating is the Couple's Relating to Each Other Questionnaires (Birtchnell, Voortman, DeJong, & Gordon, 2006). Four questionnaires are organized within the same eight octants as for the PROQ2 to measure how each partner assesses his or her relating to the other and the other's relating to him or her. A possible compromise might be to administer, in a study such as the present one, a self-rating and a partner-rating questionnaire. This would produce a clearer association with the CTS2, which, in the present study, was also completed by only one member of the couple.

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