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MODERATE AND SEVERE AGGRESSION JUSTIFICATION IN INSTRUMENTAL AND REACTIVE CONTEXTS

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The main goal of this study was to analyze the justification of interpersonal aggression in various situations or contexts. For this purpose, a self-report instrument was employed that measures different kinds of aggressive behaviors in situations in which it may be considered justified: the Cuestionario de Actitudes Morales sobre Agresión (CAMA; Ramirez, 1991), a reliable and valid test to measure the different degrees to which youth and adolescents may justify interpersonal aggression (Ramirez & Andreu, 2006). A large sample (N = 735) of participants from various educational centers of Madrid was utilized. Results revealed that normative beliefs vary as a function of age, sex, and the instrumental-reactive context. Reactive situations elicited higher levels of justification than instrumental situations and higher levels in the justifying beliefs about severe aggression were found among men than among women and in adolescents than in young adults. There were no significant differences in the justifying beliefs about moderate aggression.

Keywords: justification of aggression, normative beliefs, instrumental and reactive aggression, youth, adolescents, sex differences.

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The justification of aggression, or normative beliefs about it, is a cognitive factor emphasized in many studies on aggressive behavior. This is especially clear in the case of the theory of social learning (Bandura, 1976) as a possible explanation of aggression. According to this theory, our normative beliefs about the degree of acceptance or justification of our behavior play a crucial role in the emergence of social aggression. Social and moral attitudes can facilitate or block the expression of aggression in social life. In an atmosphere favorable to aggression (for example, in a pub) people would engage in it more frequently and with greater intensity than in other settings in which there is a predominance of common disapproval of a manifestation of human hostility (for example, in a church). Thus, justification or acceptance of some acts would depend to a great extent on the context and on social expectations. A highly determinant factor is the personal perception that it is allowable in the person's habitual environment (Ramirez, 1991, 1993, 2003).

The context or behavioral scenarios in which social aggression takes place have been underscored in the last few decades of research (Fujihara, Andreu, & Ramirez, 1999; Lagerspetz & Westman, 1980; Ramirez, 1991), revealing that aggression is significantly related to certain circumstances, such as: (a) in response to a challenge or threat to one's self-esteem or reputation (Campbell, 1986; Daly & Wilson, 1988); (b) in the search for social reinforcement, such as higher status or reputation (Raine et al., 2006); (c) in cases of a partner's jealousy (Daly & Wilson, 1998; Daly, Wilson, & Weghorst, 1982); and (d) in the dispute for certain resources, especially those important for status and sexual attraction of others (Archer, Kilpatrick, & Bramwell, 1995; Buss, 1989, 1992; Feingold, 1992). Therefore, following the evolutionary proposals of Archer and Webb (2006), three basic situations would predict aggression in human beings: (a) self-esteem and reputation; (b) sexual possessiveness; and (c) resources or benefits.

Taking these theoretical proposals into account, the Cuestionario de Actitudes Morales sobre Agresión (CAMA; Ramirez, 1986, 1991, 1993) was chosen as a self-report instrument designed to assess the degree of justification or acceptability of various aggressive behaviors in various contexts or situations in which such actions may be justified. This questionnaire, in turn, is based on the Inventory of Social Attitudes and Aggression of Lagerspetz and Westman (1980), which evaluates various aggressive behaviors in a series of justifying situations. Both instruments are used to measure people's aggressiveness and some related psychological constructs by means of scenarios, contexts, or situations that may come up in daily life (Van Goozen, Frijda, Kindt, & Van de Poll, 1994).

The aim of this study was to probe the hypotheses that: 1) instrumental and reactive contexts, ranging from self-defense to a method of overcoming communication problems, would have a significant effect on the justification of aggression; 2) that males would show a higher level of justification, given their

generally accepted higher level of aggressiveness, and 3) that the justification of aggression would decline according to the age of the participants.

METHOD

Participants

The sample of the study was 735 participants from various educational centers in Madrid: 56.5% males ($n = 415$), and 43.5% females ($n = 320$), aged between 15 and 30 years (mean 19.2 years of age; $SD = 2.8$). With regard to the educational level, 45.8% were university students, 8.9% were high school students, and 45.3% were doing professional training. All participants were volunteers, and were assured that their responses would be anonymous.

Instrument

Since the degree of approval depends on the qualities of the behavior observed, the CAMA items analyze the justification of several aggressive acts of different quality and intensity, in combination with different instrumental and hostile situations in which they may be conducted. The eight categories of aggressive acts are: becoming angry, being ironic, shouting angrily, stealing, insulting, hitting, killing and threatening. Each category is accompanied by eight different circumstances (situations) that may justify each act; self-defense, as an instrumental means, to defend someone else, to obtain sexual resources, to defend property, to increase self-esteem or reputation, due to anger or annoyance, and as a means to solving problems. The subjects have to rate the justification of a given behavior under specified circumstances using a 5-point Likert-type scale (ranging from 1 = *never* to 5 = *very often*). In a previous study addressing its reliability for another Spanish sample, the Carmines' Theta values, similar to the Cronbach's alpha, was quite satisfactory at 0.97 (Andreu, 2001). For more information, see Ramirez and Andreu (2006).

Procedure

The CAMA was administered to a sample of 735 participants from various educational centers in Madrid, depending on the centers' ability to collaborate in the study. Sampling was performed taking each classroom as a sampling unit, so that, once numbered, each classroom was selected randomly until a sufficiently representative sample was achieved to be able to implement the test. For the specific analyses reported here, all the questionnaires with missing data were rejected and not included in the statistical analyses.

Statistical Analysis

Firstly, factor analysis (principal component analysis with varimax rotation)

was performed on two scores, namely, aggressive acts and situations. The score of the justification of the eight aggressive acts was computed by adding a particular response for each of the eight situations and then dividing it by eight, calculated as the means of each one of these acts in each one of the eight situations. Similarly, the score of the justification of the eight situations was calculated by adding the responses for each of the acts within each of the eight situations and dividing the score by eight, as the means of all the aggressive acts included in each one of the situations, respectively. Secondly, analysis of variance (ANOVA) was performed to determine whether justification of aggression varied as a function of sex, age, and type of situation in which each kind of aggression occurred. The SPSS statistical program was used to analyze the data.

A 2 × 3 × 2 (Sex × Age × Situation) ANOVA was conducted, with repeated measures in the third factor (situation). This design was applied both to the scales of aggressive acts and situations. A 2 (situation: instrumental or reactive) × 2 (sex: male or female) × 3 (age: 15-17, 18-20 or > 20 years) ANOVA with two independent variables (sex and age) and one repeated variable (situation) was subsequently carried out.

RESULTS

Tables 1 and 2 present the factor analyses performed on the justifying beliefs towards these acts and situations. The first factor, which gathered the items about slight or moderate aggression (becoming angry, being ironic, shouting angrily at someone, or insulting), was called *justifying beliefs about moderate aggression*. The items corresponding to stealing, hitting, and killing had high loadings on the second factor, which was called *justifying beliefs about severe aggression*. Both factors account for 73.28% of the variance (Table 1). It is noteworthy that justification of threatening loaded significantly on both, although there was more justification on the moderate factor; therefore, for subsequent analyses, it was included in this factor.

Table 2 presents the factor analysis performed on the scores of justifying beliefs in each situation. The first factor, which accounted for 46.39% of the variance, grouped the situations mainly related to the defensive functions of aggression (self-defense, defense of another person or of property, and emotional arousal); they were qualified as being of a reactive nature. The second factor, which explained 18.20% of the variance, grouped situations in which aggression was conceived as a means or strategy to obtain resources and/or to solve problems (as a means to obtain physical or social resources, to increase self-esteem or reputation and as a means to solve problems); they were qualified as being of an instrumental nature.

TABLE 1
FACTOR ANALYSIS OF THE SCORES ON JUSTIFYING BELIEFS OF AGGRESSIVE ACTS

	Attitudes toward moderate aggressiveness	Attitudes toward severe aggressiveness
Becoming angry	.876	
Being ironic	.756	
Shouting angrily	.853	
Stealing		.825
Insulting	.724	.398
Hitting	.360	.785
Killing		.845
Threatening	.638	.445
Eigenvalue	4.24	1.63
% explained variance	52.95	20.34

TABLE 2
FACTOR ANALYSIS OF THE SCORES ON JUSTIFYING BELIEFS IN EACH SITUATION

	Attitudes toward reactive situations	Attitudes toward instrumental situations
In self-defense	.857	
As an instrumental means		.717
To defend someone else	.838	
To obtain sexual resources		.758
To defend property	.820	
To increase self-esteem or reputation		.770
Due to anger or annoyance	.679	.381
As a means to solve a problem		.749
Eigenvalue	3.71	46.39
% explained variance	1.46	18.20

Factor analysis thus yielded the same theoretical structure for both the manifestation of aggression in certain situations or contexts and the justifying beliefs about the different aggressive behaviors. Consequently, the direct scores of the justifying beliefs about the items become angry, be ironic, shout angrily, insult and threaten, on the one hand, and hit, steal and kill, on the other, are transformed into mean scores for each one of the two factor situations in which they were grouped. The four sets of scores obtained were named as justifying beliefs about: a) moderate aggression in reactive situations (internal consistency of 0.9, calculated with Cronbach's alpha), b) severe aggression in reactive situations (internal consistency of 0.8), c) moderate aggression in instrumental situations (internal consistency of 0.92), and d) severe aggression in instrumental situations (internal consistency of 0.87).

TABLE 3
DESCRIPTIVE STATISTICS OF JUSTIFYING BELIEFS ABOUT MODERATE AGGRESSION IN EACH SITUATION

	Sex	Age	*M*	*SD*	*N*
Instrumental situations	Men	15-17 years	3.3067	.7308	131
		18-20 years	3.2000	.7185	172
		> 20 years	3.2253	.7607	112
		Total	3.2405	.7336	415
	Women	15-17 years	3.1957	.7671	74
		18-20 years	3.0831	.7732	193
		> 20 years	3.1415	.8499	54
		Total	3.1189	.7841	321
Reactive situations	Men	15-17 years	2.3807	.8867	131
		18-20 years	2.3833	.7730	172
		> 20 years	2.1473	.7389	112
		Total	2.3188	.8068	415
	Women	15-17 years	2.3250	.8776	74
		18-20 years	2.4048	.7213	193
		> 20 years	2.1999	.8726	54
		Total	2.3520	.7872	321

TABLE 4
DESCRIPTIVE STATISTICS OF JUSTIFYING BELIEFS ABOUT SEVERE AGGRESSION IN EACH SITUATION

	Sex	Age	*M*	*SD*	*N*
Reactive situations	Men	15-17 years	1.9685	.6547	131
		18-20 years	1.7316	.5437	172
		> 20 years	1.6091	.4698	112
		Total	1.7733	.5796	415
	Women	15-17 years	1.6486	.6045	74
		18-20 years	1.3493	.3575	193
		> 20 years	1.3487	.4131	53
		Total	1.4184	.4521	320
Instrumental situations	Men	15-17 years	1.7812	.8498	131
		18-20 years	1.5606	.6681	172
		> 20 years	1.3728	.6169	112
		Total	1.5796	.7333	415
	Women	15-17 years	1.4494	.6672	74
		18-20 years	1.3813	.5939	193
		> 20 years	1.1368	.3475	53
		Total	1.3565	.5867	320

To determine whether justification of aggression varied as a function of sex, age, and type of situation, ANOVAs were performed with moderate and severe aggression as dependent variables. Main effects analysis of the justifying beliefs

about moderate aggression in reactive and instrumental situations showed significant effects for situation ($F_{1, 730} = 720.096$; $p < .001$) and for the situation × age interaction ($F_{2, 730} = 6.047$; $p < .005$) (Table 3). Reactive situations elicited a higher level of justification of moderate aggression than did instrumental situations ($M = 3.19$ vs. 2.31, $t = 28.47$, $p < .001$), in both age groups ($M = 3.25$ vs. 2.35, $t = 15.52$, $p < .001$ / $M = 3.14$ vs. 2.39, $t = 17.46$, $p < .001$ / $M = 3.18$ vs. 2.17, $t = 15.21$, $p < .001$). However, this statistical analysis did not reveal any significant effect of the independent factors, sex and participants' age, on the scores of justifying beliefs about moderate aggression.

Descriptive statistics of the justifying beliefs about severe aggression revealed a significant effect of situation ($F_{1, 729} = 34.752$; $p < .001$) and for the situation × age interaction ($F_{2, 729} = 3.674$; $p < .05$) (Table 4). Reactive situations elicited higher levels of justification of severe aggression than did instrumental situations ($M = 1.61$ vs. 1.45, $t = 5.53$, $p < .001$), in each age group ($M = 1.81$ vs. 1.62, $t = 3.54$, $p < .001$ / $M = 1.54$ vs. 1.47, $t = 1.83$, $p < .05$ / $M = 1.48$ vs. 1.26, $t = 5.20$, $p < .001$).

Therefore two significant effects of sex and participants' age on the justifying beliefs about severe aggression were found: the levels of justification of severe aggression were higher in men than in women ($M = 1.67$ vs. 1.39, $p < .001$), and in adolescents (the group of 15-17 year-olds) than in young adults (the group of 18-20 year-olds and the group of individuals over 20 years old, respectively: $M = 1.71$ vs. 1.51, $p < .001$ / $M = 1.71$ vs. 1.37, $p < .001$), with no significant differences observed between these last two groups (18-20 year-olds vs. those over 20 years old: $M = 1.51$ vs. 1.37, *ns*).

DISCUSSION

In order to assess the degree of justification or acceptability of various aggressive behaviors in a series of situations that represent instrumental and reactive contexts, the CAMA questionnaire was used. The reliability analysis carried out on each of the sets of scores revealed quite satisfactory reliability coefficients in all of them. Each one of the four sets of scores allows us to measure with adequate internal consistency the degree of justification towards different types of aggression, showing that the CAMA is one of the most valid and reliable self-report measures of justification of aggression (see Ramirez & Andreu, 2006).

The analysis of the underlying factor structure showed a dichotomy of intensity in aggressive acts; moderate and severe. The situations in which aggressive acts might be elicited could also be grouped into two dimensions: instrumental situations, if they are related to a functional representation of aggression as a strategy or means to obtain social and/or material resources and reactive

situations involving the manifestation of aggression as a response, basically of a defensive nature.

With regard to the differences due to the situation or context, reactive situations elicited higher levels of justification than instrumental situations, both for moderate and for severe aggression. This result is consistent with previous studies reporting that culture and nature of the immediate situation significantly affects attitudes toward interpersonal aggression (Fujihara et al., 1999; Ramirez, 1986, 1991, 1993, 2003; Ramirez, Andreu, Fujihara, Musazadeh, & Saini, 2007).

Sex differences on moral approval of aggression have been established in a variety of cultures using diverse methods and age groups. So the fact that men presented higher levels of justification of severe aggressiveness than did women was already evidenced in some combinations of aggressive acts and justifying situations (Ramirez, 1991, 1993; Ramirez, Andreu, & Fujihara, 2001).

Finally, the observation of a decline in the levels of justification of aggression with age seems to coincide with an evolutionary perspective of aggression (Andreu, Fujihara, & Ramirez, 1998; Archer, 1994; Archer & Webb, 2006; Daly & Wilson, 1998; Graña, Andreu, Lynne, & Arango, 2003; Ramirez & Andreu, 2006). Essentially, evolutionary analysis predicts that age will be an important factor because, in the evolutionary environment, social position has consequences for the person's reproductive life history. According to Archer and Haigh (1997), males and females will be more likely to use riskier ways of competition and aggression at a younger rather than older age.

The main application of this study, however, is to allow the operationalization of a complex series of variables related to the construct of justification of aggression. Consequently, since culture has an significant effect on the acceptance of aggressive acts, future investigations should focus on how such justification, as a cognitive factor associated with aggression, may be modulated by a series of cultural factors, age and educational levels.

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