

## **Antecedents and Consequences of Agentic and Communal Stressful Life Events in Adolescence**

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### **Abstract**

The relationships among frequency and intensity measures of agentic and communal stressful life events was examined on the sample of 265 subjects ranging in age from 11 to 14 years. Also, the relations of the two measures of agentic and communal stressful life events (intensity and frequency) with several antecedents (age, sex, personality traits) and consequences (coping styles and school grades) were examined.

The results obtained show that intensity and frequency measures represent different aspects of stressful experience. The relationships among variables are different in boys and girls, especially with regard to the types of stressful life events (agentic and communal). The participants' age is significantly positively related to the frequency of agentic stressful events and overall frequency. Boys have significantly higher scores on the frequency of agentic and the frequency of overall stressful life events than girls.

Eysenck's personality traits better predict agentic stressful events and frequency measures on the subsample of boys, whereas they better predict communal stressful events and intensity measures on the subsample of girls. Furthermore, the intensity and frequency measures of agentic and communal stressful life events are related to different coping styles. Girls demonstrate greater differentiation in utilizing certain coping styles under the influences of various stressful events. In both subsamples, the frequency of agentic stressors is prospectively negatively related to school grades.

**Keywords:** stressful life events, personality traits, coping styles, adolescents

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## INTRODUCTION

During their development children and adolescents experience a variety of events that result in significant changes in their lives. Given the potentially disruptive effects of such events, many studies examined the degree to which stressful events experienced by adolescents may contribute to the choice of coping strategies and the development of both mental and physical health outcomes. Research on adolescents has demonstrated that different types of stressful events such as parental and family conflict, family economic strain (Wadsworth & Compas, 2002), peer and academic stress (Causey & Dubow, 1992; Nounopoulos, Ashby & Gilman, 2006) and parental divorce (Kliewer & Sandler, 1993) have various effects both on coping process and various outcomes like psychological adjustment (Frydenberg & Lewis, 1994; Grant, Compas & Stuhlmacher, 2003; Pillow, Barrero & Chassin, 1998; Staempfli, 2007), depression and anxiety (Ge, Lorenz, Conger, Elder & Simons, 1994; Leadbeater, Blatt & Quinlan, 1995; Li, DiGiuseppe & Froh, 2006), delinquent behaviour (Vaux & Ruggiero, 1983), suicide attempts (Adams, Overholser & Spirito, 1994; Bolognini, Plancherel, Laget & Halfon 2003) and somatic health (Greene, Walker, Hickson & Thompson, 1985).

One outcome of this intensive research is the development of a number of stressful life events measures. However, their validity was not systematically examined (Mullis, Youngs, Jr., Mullis & Rathge, 1993). Adding confusion to the assessment of stress has been the use of different theoretical frameworks as a basis for instrument construction that arise as a result of various definitions of stress. There are, for example, definitions that emphasize a stimulus oriented perspective, defining stress in terms of the experiencing of specific types of noxious or aversive stimuli. Others, such as Lazarus and Folkman (1984) define stress as the result of an interaction between person and his/her environment, the experience of events that are appraised by the individual as threatening or as placing demands that exceed his/her ability to cope.

Mullis et al. (1993) noted that theoretical orientations most often associated with the measurement of stress in adolescents can be classified as reflecting either stimulus or cognitive orientation. In the stimulus-orientation model, stress is seen as a result of the number of threatening situations that are placing excessive demands on the individual. The greater the number of events experienced within a given period of time, the greater the stress experienced (Johnson, 1986). On the other hand, proponents of the cognitive-orientation model assume that the determinant of the stressfulness of a life event lies primarily upon the cognitive appraisal of the intensity of the stressful experience caused by that event (Lazarus & Folkman, 1984; Swearingen & Cohen, 1985).

Although researchers have recognized that the simple stimulus approach is an incomplete explanation of the stress process because it does not account for different resources, appraisals or coping mechanisms (Lazarus & Folkman, 1984), stimulus measures are still used. Crandall, Preisler and Aussprung (1992) note two reasons why

they have nevertheless been used, the first being that stimulus aspect are clearly an important part of the person-environment transaction, and the second one that stimulus measures predict both physical and mental health (Lazarus & Folkman, 1984).

When cognitive model is taken into regard, the important question is how the stressful events should be weighted. Several approaches have been used, some of them being the use of life change units advocated by Coddington (1972a), and the use of the individualized impact ratings as provided for in the Life Events Checklist (Johnson & McCutcheon, 1980). Third approach involves simple counts of the number of events experienced and/or the sum of impact ratings. Life change units are supposed to represent the amount of change resulting from or the degree of stressfulness associated with experiencing specific events. Johnson and Bradlyn (1988) state that although life change unit measures have been the most frequently used techniques for assessing life events, with the exception of Coddington scale, there are few validity studies to support their use.

Up to the present, few studies dealing with comparison of measures arising from the two previously mentioned approaches has been carried out. In one such study, Mullis et al. (1993) found that the measures of the perceived intensity of stress, representing the cognitive model, appear to provide information not available in the frequency measures, which reflect the stimulus model. Whereas frequency measures assess what is happening in person's environment, intensity measures assess how an individual typically reacts and seem to provide information on what is going on internally as he/she responds to stressful events. They state that intensity scores are tapping a relatively stable response to stress, while frequency scores are more directly related to the memory of the events themselves. Crandall et al. (1992) found that there is a very high correlation between frequency and intensity scores (0.92;  $p < 0.00001$ ), suggesting that the contribution of the subjective rating scale (intensity) makes very little difference in the rank ordering of subjects. Subjective scaling lengthens the amount of time needed to fill out the questionnaire and it seems to include greater contamination of negative affectivity. It does not improve the predictive validity and because of these arguments, the authors cannot recommend subjective scaling. Reich, Parella and Filstead (1988) found that the number of external stressors and the strength to internal reactions to them are independently as well as jointly associated with psychological distress.

At present, there are few research results supporting the superiority of any of these approaches over others. While intuitively it seems that some events have much greater impact on a person than other events and should thus be assessed differently, research to date has failed to show any method of assessment to be superior to a simple count of the number of stressful events experienced. Therefore, one aim of the present study is to compare stress measures in adolescents arising from stimulus and cognitive orientation.

The greatest amount of research involving children and adolescents has focused almost exclusively on major life events. However, research on adult samples has

indicated that the minor hassles may exert significant demands as well, especially because of their cumulative effect (DeLongis, Coyne, Dakof, Folkman & Lazarus, 1982; Kanner, Coyne, Schaefer & Lazarus, 1981). Compas (1987) notes that research on adults has shown the correlation between daily hassles and physical and psychological dysfunction to be equal to or higher than the correlation between major life events and physical and psychological dysfunction. It is conceivable that the reliance on only one class of events (major life events) reduces the probability of obtaining significant relationships between stressful life events and outcome variables. As a result, in the present study stress with adolescents is measured on the level of daily hassles.

Furthermore, one of the problems of stress research is adequate categorization and representation of stressful situations. Namely, research on adults (Bolger, DeLongis, Kessler & Schilling, 1989; Hudek-Knežević & Kardum, 2000; O'Brien & DeLongis, 1996) and children (Frydenberg & Lewis, 1994; Kardum & Krapić, 2001; Murberg & Bru, 2005; Staempfli, 2007; Stark, Spirito, Williams & Guevremont, 1989) demonstrated that different stressful situations have various effects both on the coping process and the outcome variables, as, for example, well-being. Frydenberg and Lewis (1994) found that achievement and relationship concerns are dealt with very similar hierarchies of coping patterns while social issue problems are managed somewhat differently than both achievement and relationship problems. The strategies used are likely to vary according to the intensity of stress. Research addressing the role of a situation in the stress and coping process has employed a number of different categories of stressful situations. For example, on the sample of seventh- and eight-graders, Wills (1986) used five common problems - school, parents, health, feeling sad and problems with friends. Stark et al. (1989) found that adolescents most commonly reported experiencing problems with school, parents, friends and boy/girlfriends. Pillow, Barrero and Chassin (1998) on a sample of 29 individual stressors found four clusters that were named family-related conflict, general child relationship problems, parent problems and major illness/bereavement.

Employing various classifications of stressful situations makes comparison and integration of findings from various research more difficult. As a result, in researching effects of various stressful situations, a general frame for their adequate taxonomy is indispensable. Recently, the metaconstructs of agency and communion (Wiggins & Trapnell, 1996) have been extended to characterize basic dimensions of situations. Agentive situations have been characterized as involving demands that are related to strivings for mastery, power, achievement, work performance and instrumental task completion. In contrast, communal situations have been characterized as involving demands that are related to strivings for love, intimacy, friendship, affiliations, emotional relatedness, belongingness, mutuality, group cohesion, communality and relationship maintenance. As demonstrated by some research on adult subjects (e.g. O'Brien & DeLongis, 1996) these dimensions may have particular heuristic value for stress and coping research. In this research, the dimensions stated will be employed for

categorization of everyday hassles on a sample of young adolescents. Therefore, the general aim of this research is to compare the frequency and intensity measures of agentic and communal stressful life events on a sample of young adolescents. Specifically, relations between stressful life events measures and their relations to age, gender, Eysenck's personality traits, coping styles, and school grades will be examined. On the basis of previous research results, it is difficult to propose specific hypotheses, and therefore the present study is mainly exploratory in nature. However, it could be hypothesized that different measures of stressful life events will not substantially overlap and will have somewhat different correlates.

## METHOD

### *Subjects*

Research was carried out on a convenient sample of 265 primary school students (120 female and 145 male) from four schools in town Rijeka. The classes within and between schools were chosen randomly. The subjects' age ranged from 11 to 14 years ( $M = 12.56$ ;  $SD = 1.12$ ). Before the beginning, all students agreed to participate in the study.

### *Measures*

A scale of agentic and communal stressful life events (Krapic, 2000) was constructed by compiling most frequently stated stressors occurring in school-age children (Hendren, 1990; Sears & Milburn, 1990). The scale consists of 24 items that depicting negative stressful events most frequently experienced by adolescents. Fourteen items describe communal stressful events related to interpersonal relationships such as striving for love, intimacy, friendship, emotional relatedness, communality and relationship maintenance (e.g. "Quarrel with parents") and ten agentic stressful events related to strivings for mastery, achievement, school performance and instrumental task completion (e.g. "Did badly on a test"). For each negative stressful life event, subjects estimated its frequency as well as the intensity of the stressfulness. Participants responded to each item by using a five point Likert-type rating scale (0 - not at all, 4 - very frequently/very stressful). On the basis of the assessment of the frequency and intensity of communal and agentic stressful events, six scores were computed: frequency of agentic and communal stressful events, intensity of agentic and communal stressful events, overall frequency and overall intensity. The coefficients of internal consistency (Cronbach-alpha) for measures of stressful events range from .63 for frequency of agentic stressful events to .84 for intensity of communal stressful events.

The Croatian version of the Junior EPQ (Eysenck & Eysenck, 1994) comprising four scales - extraversion, neuroticism, psychoticism and the L-scale - was used. Internal consistency coefficients (Cronbach-alpha) obtained on this sample were .63 for extraversion, .79 for neuroticism, .64 for psychoticism and .82 for L-scale. On the sample of this study a significant correlation between neuroticism and psychoticism is obtained (.24;  $p < .01$ ) and all personality traits are significantly related to the L-scale; extraversion (-.18;  $p < .01$ ), neuroticism (-.28;  $p < .01$ ) and psychoticism (-.41;  $p < .01$ ). Gender differences were obtained only on psychoticism ( $t = 4.53$ ;  $p < .01$ ), with boys achieving significantly higher scores ( $M = 4.89$ ) than girls ( $M = 3.45$ ). The participants' age is significantly related only to L-scale (-.42;  $p < .01$ ).

Adolescent coping styles questionnaire (Krapic, 2000) was constructed by compiling items from the following scales: Coping Scale for Children and Youth (Brodzinsky, Elias, Steiger, Simon, Gill & Hitt, 1992), Kidcope (Spirito, Stark & Williams, 1988), Adolescence Coping Scale (Frydenberg & Lewis, 1990) and Coping Orientation to Problems Experienced (Carver, Scheier & Weintraub, 1989). The basic approach in constructing this questionnaire was to encompass, in as wide range as possible, thoughts and behaviours adolescents exert when faced with stressful situations.

Adolescent coping style questionnaire consists of 55 items and can be used in a dispositional and situational format. In this study dispositional form using 5-point Likert type scale (with answers ranging from 0 - "I usually don't do that at all" to 4 - "I nearly always do that") was applied. Previous research (Krapić, 2000) demonstrates three factors underlying this questionnaire, which are named problem-focused coping, emotion-focused coping and avoidance coping. The first factor consists of 31 items related to denial, mental and behavioural disengagement and, therefore, this factor is named avoidance coping (Cronbach alpha is .89). The second factor consists of 13 items relating to reduction of emotional distress through venting of emotions and seeking social support for emotional and instrumental reasons, and is named emotion-focused coping (Cronbach alpha is .88). The third factor consists of 11 items which describe the thoughts and behaviour focused on resolving the problem, and this factor is named problem-focused coping (Cronbach alpha is .85). Conceptually similar three factors underlie the great number of questionnaires for measuring coping styles on children and adults (see Hudek-Knežević, Kardum & Vukmirović, 1999; Phelps & Jarvis, 1994).

Correlations between these three coping styles are as follows: .23 ( $p < .01$ ) between problem-focused coping and avoidance, .23 ( $p < .01$ ) between emotion-focused coping and avoidance and .41 ( $p < .01$ ) between problem-focused coping and emotion-focused coping.

Gender differences were obtained only on emotion-focused coping ( $t = 2.56$ ;  $p < .05$ ), girls achieving significantly higher scores ( $M = 23.74$ ) than boys ( $M = 20.63$ ). The three coping styles are not significantly related to the participants' age.

School grades were obtained from teachers at the end of the school year, three months after examination was carried out. The average school grade was 3.84 (SD = 0.92) on a scale of 1 to 5. Girls achieved significantly better school grades ( $M = 4.15$ ) than boys ( $M = 3.58$ ;  $t = 5.26$ ;  $p < .01$ ). School grade was not related to subjects' age ( $.02$ ;  $p > .05$ ).

### *Procedure*

The study was carried out by psychologists in schools, and lasted one school hour. The students were asked to participate in the study examining the aspects of adjustment to school. Stressful life events scale, Adolescent coping style questionnaire and Junior EPQ were administered to smaller groups of students using standard directions. When applying Stressful life events scale, participants were required to estimate the frequency and intensity of stressful life events that happened to them within the previous year.

## **RESULTS**

Initially, means and standard deviations of all measures used in this study are presented in Table 1.

*Table 1.* Means and standard deviations of all measures used in the present study

Measures	M	SD
Communal - frequency	11.05	6.14
Agentic - frequency	16.69	5.54
Communal - intensity	30.45	11.47
Agentic - intensity	19.55	8.05
Overall - frequency	27.74	10.43
Overall - intensity	50.00	18.01
Extraversion	18.77	2.98
Neuroticism	10.69	4.27
Psychoticism	4.24	2.67
L-scale	9.31	4.46
Problem - focused coping	26.57	8.06
Emotion - focused coping	22.04	9.93
Avoidance coping	44.61	17.42
School grades	3.84	.92

### Relations between stressful life events measures

Further, correlation coefficients among the measures of the intensity and frequency of agentic and communal stressful life events were computed. Those correlations are shown in Table 2.

*Table 2.* Correlations between intensity and frequency of agentic and communal stressful life events

Measures	Agentic-frequency	Communal-intensity	Agentic-intensity	Overall-frequency	Overall-intensity
Communal - FR	.59**	.09	.18**	.90**	.14*
Agentic - FR		.11	.21**	.88**	.17**
Communal - IN			.69**	.11	.95**
Agentic - IN				.22**	.89**
Overall - FR					.17**

\* $p < .05$     \*\* $p < .01$

FR – Frequency; IN - Intensity

From the correlations obtained, it could be seen that the frequencies of communal and agentic stressful events are positively related (.59;  $p < .01$ ) as well as the intensities of communal and agentic stressful life events (.69;  $p < .01$ ). The correlations obtained justify calculation of overall frequency and overall intensity scores. On the other hand, the correlations between intensity and frequency measures are relatively low (.09;  $p > .05$  for communal, .21;  $p < .01$  for agentic, and .17;  $p < .01$  for overall stressful events).

Correlations obtained on the subsamples of girls and boys are very similar to those obtained on the whole sample. The correlations of the frequency of communal and agentic stressful events with the intensity of agentic stressful events, and overall frequency with overall intensity are not significant on the subsample of girls.

Pearson's correlation coefficient between age and all intensity and frequency measures of agentic and communal stressful life events have also been computed. The correlations obtained demonstrate that, on the whole sample, the subjects' age is significantly positively related to the frequency of agentic stressful life events (.16;  $p < .01$ ) and to overall frequency of stressful life events (.13;  $p < .05$ ). Therefore, older subjects more frequently perceive all types of stressors generally and especially agentic stressful events. On the subsample of girls age is significantly related only to the frequency of agentic stressful events (.20;  $p < .05$ ), while on the subsample of boys age is not significantly related to any of the intensity or frequency measures of agentic and communal stressful life events.

Gender differences in the intensity and frequency measures of agentic and communal stressful life events have been examined by using the t-test. The results obtained demonstrate that boys achieve statistically significant higher scores than girls

on the frequency of agentic stressful life events ( $t = 2.24$ ;  $p < .05$ ) and overall frequency of stressful life events ( $t = 2.11$ ;  $p < .05$ ).

### Relations between stressful life events measures and Eysenck's personality traits

As it is well known, personality traits can affect the types of events that are recognized as being stressful by individual as well as coping responses (Compas, 1987; Hauser & Bowlds, 1990; Huan, Yeo, Ang & Chong, 2006; Ravaja, Keltikangas-Järvinen & Kettunen, 2006). Therefore, Pearson's correlation coefficients between Eysenck's personality traits and the intensity and frequency scores of agentic and communal stressful life events on the whole sample and on the subsamples of girls and boys have been computed. Those correlations are shown in Table 3.

Table 3. Correlations between Eysenck's personality traits and intensity and frequency measures of agentic and communal stressful life events

Measures	Sample	Extraversion	Neuroticism	Psychoticism	L-scale
Communal - frequency	Whole	.01	.41**	.39**	-.30**
	Girls	-.04	.45**	.31**	-.32**
	Boys	.04	.39**	.44**	-.28**
Agentic - frequency	Whole	.07	.34**	.27**	-.27**
	Girls	.02	.26**	.09	-.30**
	Boys	.10	.42**	.34**	.24**
Communal - intensity	Whole	.04	.16**	-.12*	.06
	Girls	-.03	.15	-.27**	.08
	Boys	.11	.16*	-.01	.03
Agentic - intensity	Whole	.02	.20**	.03	.02
	Girls	.08	.15	-.16	.13
	Boys	-.02	.24**	.13	-.06
Overall - frequency	Whole	.04	.42**	.37**	-.32**
	Girls	-.01	.41**	.24**	-.35**
	Boys	.08	.45**	.43**	-.29**
Overall - intensity	Whole	.04	.19**	-.06	.04
	Girls	.01	.16	-.24**	.11
	Boys	.06	.22**	.05	-.01

\* $p < .05$  \*\* $p < .01$

The correlations obtained demonstrate that on the whole sample extraversion is not significantly related to any of the intensity or frequency measure of agentic and communal stressful life events. On the other hand, neuroticism is significantly positively related to all intensity and frequency measures of agentic and communal stressful life events, whereas its correlation is somewhat higher with the frequency than with the intensity of stressful life events measures. Psychoticism is significantly

positively related mainly to the frequency of stressful life events measures and it is interesting to note that this personality trait is significantly negatively related to the intensity of communal stressful life events. Only the frequency of stressful life events measures is related to social desirability.

On the subsamples of girls and boys similar correlations have been obtained, but there are some differences. Neuroticism is related more highly to the intensity measures on the subsample of boys, and there is a tendency that neuroticism in girls is somewhat more related to communal and in boys to agentic stressful events measures. Psychoticism is related more to the frequency measures on the subsample of boys, especially with agentic stressors, while on the subsample of girls it is related more to the intensity measures, especially communal stressors.

To determine which of the Eysenck's personality traits contribute significantly to the variance of stressful life events measures, multiple regression analyses in which stressful life events measures were used as criterion variables and traits of extraversion, neuroticism and psychoticism as predictors was conducted. These analyses were carried out on the whole sample, and on subsamples of girls and boys respectively. The results obtained are shown in Table 4.

*Table 4.* Results of regression analyses for stressful life events measures as criterion variables

Criterion variables	Predictor variables	Whole sample		Girls		Boys	
		Beta	R	Beta	R	Beta	R
Communal – frequency	Neuroticism	.33**	.51**	.39**	.49**	.29**	.52**
	Psychoticism	.32**		.21*		.36**	
Agentic – frequency	Neuroticism	.29**	.39**	.26**	.26**	.35**	.48**
	Psychoticism	.20**		n.s.		.24**	
Communal – intensity	Neuroticism	.20**	.23**	.24**	.36**	.17*	.17*
	Psychoticism	-.16**		-.33**		n.s.	
Agentic – intensity	Neuroticism	.20**	.20*	n.s.	n.s.	.24**	.24**
	Psychoticism	n.s.		n.s.		n.s.	
Overall – frequency	Neuroticism	.35**	.51**	.41**	.41**	.36**	.55**
	Psychoticism	.29**		n.s.		.34**	
Overall – intensity	Neuroticism	.22**	.22**	.24**	.34**	.22**	.22**
	Psychoticism	n.s.		-.30**		n.s.	

Only significant Beta coefficients are shown

n.s. – non-significant

\* $p < .05$  \*\* $p < .01$

The results of regression analyses on the whole sample show that neuroticism is the significant positive predictor of all intensity and frequency measures of communal and agentic stressful life events on the whole sample. This personality trait is a better predictor of frequency measures than the intensity of stressful life events measures.

Psychoticism is the significant positive predictor of the frequency of stressful life events measures and also the significant negative predictor of the intensity of communal stressful life events. Neuroticism and psychoticism are also better predictors of communal than agentic stressful events. Extraversion is not a significant predictor of any stressful life events measures on the whole sample, as well as on the subsamples of boys and girls.

Regression analyses carried out on the subsamples of girls and boys show some differences. Table 4 shows that psychoticism has different effects on the subsample of boys than in girls. Namely, it is a negative predictor of the intensity of communal stressful events, and overall intensity only on the subsample of girls, while on the subsample of boys it positively predicts the frequency of agentic stressful events and overall frequency of stressful events. Also, Eysenck's personality traits somewhat better predict frequency measures and agentic stressful events measures in boys, while in girls intensity measures and communal stressful events measures.

### Relations between stressful life events measures and coping styles

As already mentioned, previous research has demonstrated that various stressful situations are differently related to coping styles and outcome variables (Frydenberg & Lewis, 1994; Staempfli, 2007; Stark, Spirito, Williams & Guevremont, 1989). To examine the relations between stressful life events measures and coping styles, correlations between three coping styles (problem-focused coping, emotion-focused coping and avoidance coping) and the intensity and frequency of agentic and communal stressful life events measures on the whole sample and on the subsamples of girls and boys were computed. These correlations are shown in Table 5.

Table 5. Correlations between coping styles and intensity and frequency of agentic and communal stressful life events measures

Measures	Sample	Problem – focused coping	Emotion – focused coping	Avoidance coping
Communal - frequency	Whole	.15**	.12*	.32**
	Girls	.09	.01	.28**
	Boys	.20*	.23**	.34**
Agentic - frequency	Whole	.19**	.09	.31**
	Girls	.20*	.02	.28**
	Boys	.19*	.19*	.34**
Communal - intensity	Whole	.27**	.25**	.12*
	Girls	.31**	.34**	.02
	Boys	.24**	.19*	.18*
Agentic - intensity	Whole	.19**	.18**	.19**
	Girls	.33**	.27**	.11
	Boys	.09	.13	.24**

Table 5. - Continued

Measures	Sample	Problem – focused coping	Emotion – focused coping	Avoidance coping
Overall - frequency	Whole	.19**	.12*	.35**
	Girls	.16	.01	.32**
	Boys	.22**	.23**	.38**
Overall - intensity	Whole	.26**	.24**	.16**
	Girls	.34**	.33**	.06
	Boys	.20*	.18*	.22**

\* $p < .05$  \*\* $p < .01$

From the correlations obtained, it can be seen that on the whole sample problem-focused coping and avoidance coping are significantly positively related to all measures of the intensity and frequency of communal and agentic stressful life events. Avoidance coping is more related to the frequency measures than to the intensity measures. Emotion-focused coping is significantly positively related to all measures except to the frequency of agentic stressful events. This coping style is more related to the intensity measures than to the frequency measures and somewhat more to the measures related to communal than to agentic stressful events.

If we observe correlations obtained on the subsamples of girls and boys, we can see certain differences. Problem- and emotion-focused coping styles are somewhat more related to the intensity measures in girls and to the frequency of stressful events measures in boys, while avoidance coping style is more related to the intensity measures only in boys.

To determine which of the stressful life events measures contribute significantly to the variance in coping styles, multiple regression analyses using coping styles as criterion variables and the frequency and intensity of communal and agentic stressful life events as predictors were carried out. These analyses were carried out on the whole sample, and on the subsamples of girls and boys. The results obtained are shown in Table 6.

Table 6. Results of regression analyses for coping styles as criterion variables

Criterion variables	Predictor variables	Whole sample		Girls		Boys	
		Beta	R	Beta	R	Beta	R
Problem – focused coping	Communal – FR.	n.s.		n.s.		.18**	
	Agentic – FR.	.16**	.32**	n.s.	.33**	n.s.	.30**
	Communal – IN.	.26**		n.s.		.22**	
	Agentic – IN.	n.s.		.33**		n.s.	
Emotion – focused coping	Communal – FR.	n.s.		n.s.		.21*	
	Agentic – FR.	n.s.	.25**	n.s.	.34**	n.s.	.28**
	Communal – IN.	.25**		.34**		.16*	
	Agentic – IN.	n.s.		n.s.		n.s.	

Table 6. Continued

Criterion variables	Predictor variables	Whole sample		Girls		Boys	
		Beta	R	Beta	R	Beta	R
Avoidance coping	Communal – FR.	.19**		.28**		.21*	
	Agentic – FR.	.18*	.37**	n.s.	.28**	.21*	.38**
	Communal – IN.	n.s.		n.s.		n.s.	
	Agentic – IN.	.12*		n.s.		n.s.	

Only significant Beta coefficients are shown

n.s. – non-significant; FR – frequency; IN – intensity

\* $p < .05$  \*\* $p < .01$

The results of regression analyses show that on the whole sample the intensity of communal and, to a lesser degree, the frequency of agentic stressful life events significantly predict problem-focused coping. The intensity of communal stressful life events is the only significant predictor of emotion-focused coping. However, avoidance coping is predicted by the frequency of communal stressors and the frequency and intensity of agentic stressful life events.

The results obtained on the subsamples of girls and boys show that the main difference is found in prediction of problem-focused coping. Namely, the intensity of agentic stressors is the only significant predictor of this coping styles in girls, while in boys significant predictors are both measures of communal stressors. Regarding avoidance coping, the frequency of communal stressors significantly predicts this coping style in both subsamples. However, in boys the frequency of agentic stressors also appears as a significant predictor of avoidance. The intensity of communal stressors significantly predicts emotion-focused coping style both in boys and girls, but in boys the frequency of communal stressors also predicts this coping style.

### Relations between stressful life events measures and school grades

To examine the relations between stressful life events measures and school grades, correlations on the whole sample, and on the subsamples of girls and boys were computed. These correlations are shown in Table 7.

Table 7. Correlations between school grades and intensity and frequency of agentic and communal stressful life events measures

Measures	Whole sample	Girls	Boys
Communal – frequency	-.19**	-.17	-.18*
Agentic – frequency	-.30**	-.27**	-.28**
Communal – intensity	.07	.11	.05
Agentic – intensity	.02	.12	-.01
Overall – frequency	-.28**	-.25**	-.25**
Overall – intensity	.06	.12	.02

\* $p < .05$  \*\* $p < .01$

The correlations obtained demonstrate that on the whole sample school grades are significantly negatively related primarily to measures which include the frequency of experienced stressors. As expected, school grades are somewhat more related to the measures of agentic than to the measures of communal stressors. A similar correlation pattern is obtained if girls and boys are analyzed separately.

The results of regression analysis where four measures of stressful life events were employed as independent variables and school grades as a dependent variable demonstrate that the frequency of agentic stressors is the only significant predictor of school performance on the whole sample ( $Beta = -.30$ ;  $p < .01$ ) and on the subsamples of girls ( $Beta = -.27$ ;  $p < .01$ ) and boys ( $Beta = -.28$ ;  $p < .01$ ).

## DISCUSSION

The results obtained verify the need for differentiation of the proposed stress measures (intensity and frequency), since they partially cover different aspects of stressful experience. Contrary to some research (e.g. Crandall et al., 1992) which finds a very high correlation between the frequency and intensity measures of stressful situation experienced, in the present study the correlations obtained between the intensity and frequency measures are relatively low (see Table 2).

The relationship of the intensity and frequency of agentic and communal stress life events measures with age and gender of the subjects, show some similarities as well as differences when compared to previous research. Above all, it can be seen that age is positively related only to the frequency measures and especially to the frequency of agentic stressful events. This relation is also more emphasized in girls. Coddington (1972b) found that both total number of stressful events and life change unit scores increased significantly with age. He also highlights two major increases in life changes, first at age 6-7 when children enter school and again at age 12-14 with the onset of puberty. Larson and Ham (1993) have also found that adolescents encountered more negative events than younger subjects, including more peer, school and family stressful events, which is in accord to the results of the present study.

Regarding gender differences it can be seen that boys have significantly higher scores than girls on the frequency of agentic stressful life events and overall frequency of stressful life events. Previous research has shown that girls more frequently have higher scores on stressful life events measures. Namely, girls tend to rate events as more stressful than boys (Eschenbeck, Kohlmann & Lohaus, 2007; Lawrence & Russ, 1985), girls report more major negative events (Lewis, Siegel & Lewis, 1984) and more daily hassles (Compas, Davis & Forsythe, 1985). Higher scores in boys obtained in this research could account for the fact that the majority of boys of this age are at the onset of puberty, while girls went through this phase somewhat earlier. Apart from this, difference in the frequency of agentic stressful life events could be the consequence of different socialization of boys and girls since it is well known that boys are focused

more on the mastery of instrumental skills related to achievement, while girls are focused more on affiliative and empathic skills which are of greater importance in interpersonal relations. These differences in socialization probably cause greater sensitivity and reactivity to stressful events that include achievement in boys and to events linked to interpersonal relations in girls. For example, Leadbeater, Blatt and Quinlan (1995) found that adolescent girls show greater interpersonal depressive vulnerability and greater reactivity to stressful events involving other people. The results of the present study concerning Eysenck's personality traits also point to a similar conclusion since, on the subsample of boys they better predict agentic stressful events measures and on the subsample of girls communal stressful events measures. It is interesting to note that neuroticism and psychoticism in boys better predict frequency while in girls intensity measures. Therefore, personality traits in boys predict a greater number of stressful events experienced, i.e. stimulus aspects of stressful events, whereas in girls individual perception of these events, i.e. cognitive aspects of stressful experience. The results obtained might suggest that boys and girls form stressful experience through various mechanisms and on the basis of different information. Thus, for example, personality traits in boys could primarily cause them to be more exposed to stressful events while in girls they could affect appraisal of various resources for coping with stress.

The most outstanding difference between girls and boys can be seen in the effects of psychoticism, which negatively predicts the intensity of communal and overall intensity of stressful events only on a subsample of girls. Since it is well known that the dimension of psychoticism is a supertrait which contains closely-linked traits such as impulsivity, sensation seeking, lack of socialization and responsibility, autonomy and aggression (Zuckerman, 1989), such effect of psychoticism is probably the result of reduced sensitivity for other persons.

According to some authors (Bolger & Schilling, 1991; McCrae & Costa, 1986; Scheier & Carver, 1985) people prefer to use particular coping strategies regardless of the specific problem even though certain situations tend to elicit greater use of some related coping strategies. However, other researchers suggest that people are more variable than consistent in their use of coping strategies. For example, Folkman and Lazarus report that problem-focused coping was more evident in relation to work-related stresses while emotion-focused coping was used more with health-related problems (Folkman & Lazarus, 1980). The results of the present study (see Tables 5 and 6) show that measures of intensity and frequency of agentic and communal stressors are related to different coping styles. In other words, specific social situations may induce people to employ some specific coping strategy. This is especially pronounced for girls, who demonstrate a considerably greater differentiation in employing specific coping styles in different stressful events than boys. Future research should thoroughly examine the effects of greater flexibility in utilizing particular coping styles in girls.

However, apart from the differences in the employment of particular coping styles under the impact of various stressful situations, it is obvious that communal stressful events measures are generally better predictors of coping styles. These results once again confirm the importance of interpersonal stressful situations, since problems in social relationships can have serious implications for well-being (Bolger, DeLongis, Kessler & Schilling, 1989; Hammen, 1992).

The frequency of agentic stressors is the only significant negative predictor of school grades both on the whole sample and on the subsamples of girls and boys. Although it is difficult to speak about the causal relations, Yee, Edmondson, Santoro, Begg and Hunter (1996) found that individuals reporting high levels of negative life stress tended to perform more poorly in tasks because they were more likely to experience distracting thoughts that were unrelated to the current task. Although school grades were gathered three months after examination was carried out, a certain amount of caution is still needed in interpreting this result because the agentic stressors scale contains items that could be confounded with the school grades.

## CONCLUSION

The results obtained show that the intensity and frequency measures of agentic and communal stressful life events have meaningful relations with certain characteristics of participants (gender and age), with personality traits, coping styles and school grades, and therefore, the need for differentiation of two stress events measures (frequency and intensity) and the typology of stressful events which are based on agency and communion dimensions is confirmed. Further research should examine in detail the heuristic value of these two dimensions in the area of stress and coping, by taking into consideration various outcome indicators and bearing in mind that these dimensions represent two areas in which socialization of girls and boys could be very different.

In interpreting the results, methodological limitations of this study should be mentioned. One limitation of the present study is its partly cross-sectional design that precludes causal interpretations. The other limitation is that the majority of measures were self-reports, and therefore the results obtained may be vulnerable to various self-report biases.

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