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The relationships between perceived stress for the future and coping strategies in times of social uncertainty: A study of Italian adolescents

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Rapid social and economic changes in most industrialized countries have increased the level of uncertainty and precariousness to which young people are exposed. Adolescents are increasingly preoccupied with their future in terms of education, jobs, and career. The current study was aimed at investigating: 1) the stress for the future and the coping styles; 2) gender, age, and living place differences in stress and coping; 3) the relationships between coping styles and future-related stress. 916 Italian adolescents of both sexes, ages 11 to 20, attending public middle and high schools in two living places with different levels of unemployment (lower in Turin, higher in Naples) participated in the study. Adolescents completed the questionnaires “Coping Across Situations Questionnaire” and “Problem Questionnaire”. Main findings showed that: 1) the adolescents perceive the future as the most stressful domain and they use active and internal coping more than withdrawal; 2) stress is higher among girls than boys; younger use coping strategies more than older; c) stress is higher in Turin and internal coping and withdrawal is higher in Naples; 4) stress is: a) positively related to active coping and negatively related to withdrawal (especially in Naples where there is also a negative relation with internal coping); b) withdrawal moderates the effect of active coping. When the context offers too few opportunities for the future, active coping seems ineffective in reducing perceived stress.

Key words: Societal uncertainty, stress for the future, coping strategies, adolescents.

INTRODUCTION

Some adolescents are overcome with worry about their future and express their preoccupation and unhappiness in the present through different pathological responses, such as escaping reality through substance abuse, suicide, or by drastically reducing the amount of food they consume, as in the case of anorexia. However, research has shown that the majority of adolescents are reasonably satisfied with their prospects for the future and have strong coping abilities (Gelhaar et al., 2007; Seiffge-Krenke et al., 2008). These adolescents are able to maintain good adjustment while facing the developmental tasks characteristic of adolescence (Bosma and Jackson, 1990; Olbrich, 1990).

Adolescent developmental tasks include challenges and changes related to future achievement as an independent adult; challenges such as constructing new and more mature relationships with friends and a romantic partner and building the foundation for a career, despite the constraints posed by current society. A successful transition from adolescence to adulthood requires specific competencies in order to overcome the various age-specific developmental tasks, each of which may represent a potential stressor (Petersen et al., 1991; Rutter, 1990). Scholars usually agree that the ways in which adolescents cope with age-specific developmental tasks and stressors play an important role in how stress impacts young people’s adjustment, leading them farther away from or closer to psychopathology (Compas et al., 1995; Kelley, 2004; Seiffge-Krenke, 2000; Schulenberg et al., 2004).

Although research on stress and coping in adolescence has increased considerably over the last few decades,
we feel that there is still a need for studies that provide an in-depth investigation of the relationships between adolescent coping strategies and perceived stress in order to highlight how adolescents really cope with stress in their every-day lives and within certain contexts, especially when it comes to preparing for their future. More specifically, we lack studies that assume an explanatory perspective (Jessor, 2008), both across countries and within the same country, instead of a descriptive viewpoint. Only an explanatory perspective would allow us to go investigate further whether future is really stressful for the adolescents in comparison with other problem domains and whether active coping, usually deemed most adaptive, is really always more adaptive than other coping styles.

We feel that in the current conditions of social uncertainty and change, especially where uncertainty is at its highest, active coping may actually not be the most efficient coping style. Previously, other authors (Lazarus and Folkman, 1984; Lazarus, 1998) have demonstrated that when the situation can not be changed and the environment is poor in resources, the coping strategies such as active efforts to change and improve one’s situation (problem-focused strategies), may actually be less efficient than others, such as distancing oneself from unchangeable stressors (emotion-focused strategies).

The present contribution focuses on the relationships between future-related stress and the ways adolescents report coping with future-related stress in two different areas of the same country, characterized by substantially different rates of unemployment.

Generally speaking, we know that focusing on the future is intrinsic to the role of adolescence: in the family, and elsewhere, adolescents are encouraged to think about their forthcoming transition to adulthood (Nurmi, 1993; Malmberg, 1996). Furthermore, in an extensive review of the future orientation and planning literature, Nurmi (2005) indicates that adolescents’ future aspirations, expectations, and fears in the areas of education, work, career, and family significantly impact their later life experiences.

Adolescents’ expectations for their futures must also take into account the social conditions in which they live. Undoubtedly, the daily contexts of adolescents’ lives are changing, with major implications for their health and well-being (Call et al., 2002). A recent study of 14 nations has shown that youths in all countries have clearly become exposed to more uncertainty and precariousness in the course of globalization (Blossfeld and Hofmeister, 2005; Schoon, 2007). Various social changes and transformations, such as demographic trends, widening economic disparities, globalization, changes in government, changing family structures, and information technology are affecting the daily life conditions of young people as well as the way they view the future (Larson, 2002). Due to rapid economic changes, the future job market for which adolescents are preparing cannot be accurately foreseen and school-to-work transitions become increasingly difficult and turbulent (Call and Mortimer, 2001; Mortimer and Larson, 2004). Young people are confronted with fixed-term contracts, part-time work, and unemployment much more than other age groups.

A consequence of this uncertainty and precariousness may be difficulty in predicting what the future holds, which, in turn, may lead to negative effects on psychological well-being (Greco and Roger, 2003; Sverke and Hellgren, 2002; Jeffrey and McDowell, 2004). In general, there is presently an ever-increasing mismatch between young people’s expectations and ambitions. A gap exists between what young people are expected to do by various institutions, such as the education system, families, and dominant norms and values, and the reality of their everyday experiences in their transitions from the education system to the labour market and adulthood.

Because of the economic development and social changes occurring in most industrialized nations, young people are increasingly worried about issues related to leaving school and entering the workforce or higher education, leaving one’s family to set up a new and independent home, becoming involved in romantic relationships, and eventually cohabitating or marrying and becoming a parent (Eurobarometer, 2008). Several studies have found that adolescents’ most stressful concerns are more often related to the future domain than to other domains, such as relationships with parents and peers and even school achievement (Nurmi et al., 1995; Seiffge-Krenke, 1995; Frydenberg, 1997; Frydenberg, Lewis et al., 2001). Although uncertainty and social change are pervasive in all of western society, they may differ between countries and also within the same country, based on specific sociological conditions, such as the rate of unemployment (Crockett and Silbereisen, 2000; Pinquart and Silbereisen, 2004; Trommsdorff, 2000). Some recent studies have shown that, although the level of future-related stress is generally high, there are differences in stress across different European countries (Gelhaar et al., 2007; Seiffge-Krenke et al., 2008): in some countries, such as Germany and Great Britain, the level is lower than in other countries, like France and Italy.

However, youths often develop adequate responses for coping successfully with uncertainty. For example, the difficulties of finding a job after graduating from school may lead to prolonged education for remaining in the educational system, postponement of family formation, or engagement in flexible partnerships. With respect to adolescent coping strategies, research has pointed to various coping styles such as active coping (e.g. seeking social support; Seiffge-Krenke, 1995; Frydenberg and Lewis, 1999), cognitive or internal coping (e.g. reflecting on possible solutions (Seiffge-Krenke, 1995; Garnefski et al., 2002), and avoidant coping, e.g. withdrawal (Seiffge-Krenke, 1995; Seiffge-Krenke and Klessinger, 2000).

When adolescents are confronted with age-specific stressors, such as arguments with parents, getting bad
grades in school, breaking up with a boyfriend or girlfriend, they usually employ active and cognitive or internal coping, while avoidant coping is used less frequently (Seiffge-Krenke, 1995; Hampel and Peterman, 2005; Gelhaar et al., 2007). While problem-focused, that is, active and cognitive coping has been found to be generally related to better adjustment and avoidant coping to poorer adjustment (Compas et al., 2001), coping styles cannot be labelled as good or bad since the context must be considered (Hauser and Bowlds, 1990). The use of maladaptive coping styles, such as avoidance and withdrawal has often been associated with an increase of psychopathology (Seiffge-Krenke and Klessinger, 2000; Seiffge-Krenke, 2001).

Despite the presence of differences across countries and within a country for future-related stress, the ways in which young people across different countries cope with age-specific stressors like the future were found to be very similar and usually adaptive. In fact, most frequently cited by young people were active coping efforts, followed by internal reflection on possible solutions, and to a lesser extent, dysfunctional coping styles like withdrawal (Gelhaar et al., 2007; Seiffge-Krenke et al., 2008).

However in situations that are objectively or subjectively beyond the individual's control, coping strategies orientated towards engagement with the stressor and solving the problem might also be dysfunctional. The effectiveness of coping behaviour seems to be determined by the match between coping strategies and perceived controllability of stressors (Compas et al., 2001; Griffith et al., 2000). "If the individuals perceives their situation as changeable and believe in their own resources to change it, problem-focused coping is used. In other cases, individuals use emotion-focused coping in order to regulate the accompanying emotions (Pinquart and Silbereisen, 2004). High levels of active and internal coping might not be adaptive especially to cope with future-related stressors. Future-related stressors are more related to contextual characteristics than to individual ones and cannot be easily changed because the individual may not possess the resources to change them (Pinquart and Silbereisen, 2004). Active coping may be more likely associated with success and positive feelings if the individual lives in a context that offers many opportunities and sources of support for active coping (Heckhausen, 1999). Conversely, an accommodative process might be more functional than coping strategies aimed at improving the situation and solving the problems.

Compared to the effects of country, age and gender effects on stress perception and coping style were negligible (Gelhaar et al., 2007; Seiffge-Krenke et al., 2008). Some previous research (Frydenberg, 1997; Frydenberg and Lewis, 2000; Hampel and Petermann, 2005; Seiffge-Krenke and Beyers, 2005) highlighted that girls experience more stress than boys with regard to future-related problems. However, girls and boys do not differ in terms of coping styles in general, but only in the use of specific coping strategies, such as social support seeking and tension-reduction (Seiffge-Krenke, 1995). As for age-group differences, older adolescents seem to perceive future-related problems as more stressful than younger ones because they are more sensitive to the social and economic characteristics of their context (Folkman and Moskowitz, 1987; Crockett, 1997). However older adolescents are also more likely to use active and internal coping strategies than younger ones.

We have chosen to investigate adolescent future-related stressors and coping strategies in Italy because of the unique current socio-economic condition of this country, looking specifically at two large cities, one in the north and one in the south of Italy, which are clearly differentiated in terms of youth unemployment. We selected Italy because of the economic and social disadvantages its young people face today. The Italian public welfare system is skewed substantially towards the older generation: a great deal is spent on pensions, while very little is spent on social programs to benefit young people (Rossi et al., 2002). Many young people are unemployed and ineligible for unemployment benefits. Many find themselves jumping from one badly paid precarious job to another. Thus, young adults are allowed to live at home until they become financially independent and gain some stability in their lives. Indeed, young people have no choice but to live with their parents: the family provides the support and insurance that the welfare state does not. The lack of formal institutions and social policies, such access to home loans and subsidized credit for young people and policies that support adolescents’ and young people’s autonomy and independence, have profound economic and social implications (Manacorda and Moretti, 2005). In addition, the participation of young people in the labour market is low: currently, the youth unemployment rate in Italy is one of the highest in Europe (ISTAT, 2008a) and the average young person’s income is one of the lowest in Europe (Rosina, 2006). While the labour market is very unfavourable for young people, Italian young adults face a lower risk of poverty than the population as a whole because of the widespread practice of young people remaining in their parents’ home for protracted periods has a protective effect. This contributes to the explanation of why the transition to adulthood lasts longer in Italy than in other countries (Bonino et al., 2003). However, we must take into account that a general delay in the transition to adulthood is common in many Western countries (Arnett, 2006), due also to the fact that today’s fami-
lies are characterized by a more intense emotional investment by parents in their children, as compared to the past (Scabini, et al., 2006).

In our study we focus on two large Italian cities in different regions of the country because the perception of stress and coping behavior may have an embedded environmental component that differ even within the same country (Olah, 1995; Compas et al., 2001). Because Italy is geographically divided into regions, socio-economic and cultural differences can be perceived and therefore a further local investigation is required. For this reason, we decided to concentrate on different regions, Piedmont in the Northwest of Italy and Campania in the South. These two regions differ in terms of socio-economic conditions, family functioning and structure, school experience, values, and culture (Bagnasco, 1977; Bianco, 2001; ISTAT, 2000). More specifically, we focussed on two urban areas representing these regions, Turin in the Northwest, with a population of 902,612, and Naples in the South, with a population of 1,004,500. The socio-economic situation in the South of Italy is more unfavourable than in the North (CENSIS, 2007; ISTAT, 2008b). The unemployment rate is about 7% in Italy, 4% in the North and 12% in the South. In particular, at every working age (from 15 years and older) the unemployment rate in Naples is about the double of the rest of Italy.

Based on the considerations presented above, our study investigates to what degree adolescents perceive the future as stressful and which strategies they use most frequently to deal with future-related stressors. We also consider differences in gender, age, and living place, as well as whether and how the different coping styles are related to the perception of stress for the future, that is how effective coping styles are in limiting future-related stressors, that is lower perception of future-related stressors, that is less stressful than in northern Italy (CENSIS, 2007). Finally, we expected that adolescents from Naples perceive future-related stressors as more stressful than adolescents from Turin because the current socio-economic situation in southern Italy is worse than in northern Italy (CENSIS, 2007). We also expected that active and internal coping styles are more likely to be negatively related to stress in Turin and that withdrawal is more likely to be negatively related to stress in Naples.

What relationships exist between the perception of the future as stressful and different kinds of coping styles in two living places from the same country, characterized by differences in unemployment? Based on the previously mentioned considerations, we expected that active and internal coping styles are more likely to be negatively related to stress in Turin and that withdrawal is more likely to be negatively related to stress in Naples.

Are there differences for gender, age, and living place in the types of coping style used and in the perception of the future as stressful? In line with previous research (Frydenberg, 1997; Frydenberg and Lewis, 2000; Hampel and Petermann, 2005; Seiffge-Krenke and Beyers, 2005), we expected that girls experience more stress than boys and that there would be no differences between girls and boys in terms of coping styles. As for age-group differences, we expected that older adolescents perceive future-related problems as more stressful and that they use active and internal coping styles more often than younger ones (Folkman et al., 1987; Crockett, 1997). As for place of living differences, considering the above-mentioned unemployment rates, we expected that adolescents from Naples perceive future-related stressors as more stressful than adolescents from Turin because the current socio-economic situation in southern Italy is worse than in northern Italy (CENSIS, 2007).

What kinds of coping styles (active, internal, and withdrawal) do Italian adolescents use most often in facing future-related stressors? Since functional coping styles have recently been found to be more prevalent among European adolescents than dysfunctional coping (Gelhaar et al., 2007), we expected that also Italian adolescents would report using active and internal coping (e.g. social support seeking, problem solving) more frequently than withdrawal (e.g. emotional regulation, denial, etc.) in the future-related problems domain.

METHOD

Participants

916 Italian adolescents of both sexes (Four students did not indicate their sex on the questionnaire) (boys: N = 448, 49%; girls: N = 464, 51%), ages 11 to 20 (M= 15.24,
the present study, with the exception of analyses aimed at answering our first research question, we concentrated on the future domain only, which consists of the following eight items: 1) I might not get into the training program or college/university of my choice; 2) The destruction of the environment is increasing; 3) It may be difficult to combine my studies and job with marriage and family; 4) I might lose myself in the daily humdrum of life, in social norms and pressures; 5) I would like to discover my real interests; 6) I don’t know what I am going to do after I finish school; 7) I am unsure about which profession I am best suited for; 8) I could be unemployed (α=.67).

We assessed coping strategies using the Italian version of Coping Across Situations Questionnaire (CASQ), translated and revised by Zani (1999). CASQ was developed by Seiffge-Krenke (1995) and has been used in cross-national research (Gelhaar et al., 2007). This instrument encompasses 20 coping strategies across eight problem domains: self, parents, peers, romantic relationships, school, leisure time, work, and the future. The adolescents were asked to mark, domain by domain, all the coping strategies they used when a problem in one of the eight domains occurred (0= strategy not used; 1= used). Analyzing the 20 x 8 matrix, we were able to evaluate the general coping styles across domains as well as domain-specific coping strategies. However, as mentioned above, only analyses of coping styles with future stressors were conducted. A previous test of the dimensionality of the CASQ on a sample composed by 675 German adolescents (Seiffge-Krenke, 1995) revealed three factors (The original factor structure was maintained because this study was part of a wider research project on stress and coping in adolescence, involving 15,000 adolescents from 20 countries (Seiffge-Krenke et al., 2008). By maintaining the original factor structure, the results obtained in this study can be compared with results from other cross-national studies employing CASQ) representing the following coping styles for each problem domain: a) active coping (7 coping strategies): coping strategies involving talking about the problem with the person concerned or seeking information, advice, and assistance from the formal or informal social support network (e.g. “I discuss the problem with my parents”); b) internal coping

Table 1. Subsample characteristics

<table>
<thead>
<tr>
<th>Type of school</th>
<th>Turin (N = 661)</th>
<th>Naples (N = 255)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>49% (N = 325)</td>
<td>55% (N = 139)</td>
</tr>
<tr>
<td>Boys</td>
<td>51% (N = 333)</td>
<td>45% (N = 115)</td>
</tr>
<tr>
<td>Age</td>
<td>M = 15.29; SD = 2.12</td>
<td>M = 15.11; SD = 2.18</td>
</tr>
<tr>
<td>Type of school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle school</td>
<td>28% (N = 187)</td>
<td>31% (N = 79)</td>
</tr>
<tr>
<td>Lyceum</td>
<td>31% (N = 203)</td>
<td>47% (N = 120)</td>
</tr>
<tr>
<td>Technical school</td>
<td>41% (N = 271)</td>
<td>22% (N = 56)</td>
</tr>
</tbody>
</table>

SD = 2.12; 11-13 yrs or early adolescents: N = 202; 22%; 14-16 yrs or mid-adolescents: N = 412, 45%; 17-20 yrs or late adolescents: N = 302, 33%), attending public middle (N = 266, 29%) and high schools (classical or scientific lyceums: N = 323, 35%; technical schools: N = 327, 36%) in two large cities (A large city is defined as having a population of at least 300,000 (ISTAT, 2008a). Turin and Naples are among the four largest cities in Italy), Turin (N = 661, 72%) and Naples (N = 255, 28%) participated in the study. There were no differences between the Turin and Naples sub-samples with respect to proportions for gender (χ² = 2.09, n.s.) and age (t = 1.12; n.s.) (Table 1). However, the percentage of adolescents attending middle school and lyceum is higher in the Naples sub-sample, while the percentage of adolescents attending technical school is higher in the Turin sub-sample (χ² = 33.09, p = .0001). While the sample is not nationally representative, participants were recruited to achieve an approximately balanced proportion for gender, age, and type of school. According to socio-demographic data, these sub-samples are very similar to the same-age national population (ISTAT, 2008a; Farinelli, 2006).

Measures

We evaluated stress perception using the back-translation (from English to Italian and from Italian to English) of the Problem Questionnaire (PQ) Seiffge-Krenke, 1995), which assesses minor stressors in diverse problem domains. The whole questionnaire consists of 64 items that, in earlier studies, has been frequently defined as typical and salient everyday stressors (Seiffge-Krenke, 1995). The adolescents were asked to indicate the stressfulness of a specific problem, ranging from “1 = not stressful at all”, to “5 = highly stressful”. A previous test of the dimensionality of the PQ on a sample composed of 675 German adolescents (Seiffge-Krenke, 1995) revealed seven problem domains: problems with school, the future, parents, peers, leisure time, self-related problems, and problems related to romantic relationships. Cronbach alphas for the subscales ranged from α=.67 to α=.84. In the present study, with the exception of analyses aimed
(6 coping strategies): coping strategies involving cognitive processes oriented towards searching for a solution, recognizing one’s own limitations, and being willing to accept compromises (e.g. “I think about the problem and try to find different solutions”); c) withdrawal (7 coping strategies): efforts to withdraw from the stressor or avoid the problem, as well as behaviours intended to reduce emotional tension (e.g. “I withdraw because I cannot change anything anyway”). In our study the Cronbach alphas for the internal consistency of the three scales of coping with future-related stressors were .88, .77, .73, respectively.

Procedure

The questionnaires were administered in randomly sampled schools in Turin and Naples in order to include the different types of schools attended by Italian adolescents nationwide (Farinelli, 2006). When recruiting schools for the study, we included schools that differ in terms of their curriculum (lyceum and technical schools), the age of their students (middle and secondary schools), the predominance of either males or females attending (The percentage of girls is low among students attending technical (35%) and vocational schools (43%) and higher among students attending lyceum (70%) (Ministero della Pubblica Istruzione, 2007), and the SES of their students.

The selected schools were invited to participate in the study and permission to carry out the study was obtained from the school headmasters. Administration of the questionnaires was preceded by a presentation of the study to each school included in the research. No incentives were offered. In accordance with the Italian law and the Association of Italian Psychologists’ code of ethics, we obtained informed consent from the parents of all participants under the age of 18. All the students invited to participate provided consent as did all the parents of under-age students. The questionnaires were administered in the classroom during ordinary school-hours under the supervision of research assistants and trained psychology students. Great care was taken to ensure conditions of confidentiality during the questionnaire administration: teachers were not in the classroom and adolescents were assured that no one in the school would have access to their questionnaires.

The time required to complete the anonymous questionnaires was approximately 30 min.

Strategy of analyses

With regard to stress perception, since the number of items was different for each domain, we computed mean values to construct the scales relating to the seven problem domains. The higher the mean value (min-max: 1-5), the higher the perceived stressfulness of that problem domain.

With regard to coping styles, we also calculated a total score for active coping, internal coping, and withdrawal: the higher the score, the more each coping style was used. However, in order to compare the three different coping styles, mean values defining each coping style were calculated by dividing each scale by the number of items.

To investigate which problem domain is considered most stressful by the adolescents and which coping styles adolescents use most frequently to cope with future-related stress, we used two ANOVAs, introducing only the WITHIN Subjects factor and controlling also for the presence of differences between means by the way of post-hoc tests.

To analyze the presence of differences with respect to gender, age-group, and living place in the perception of the future as stressful and in the use of the three kinds of coping styles we used four ANOVAs 2 x 2 x 2, with three main effects (gender, two levels: boys and girls; age-groups, three levels: 11-14 years; 15-16 years; 17-20 years; living place, two levels: Turin and Naples), three first-order interactions (gender x age-group; gender x living place; age-group x living place), and one second order interaction (gender x age-group x living place).

Finally, using the hierarchical regression approach suggested by Holmbeck (1997), we analyzed both the relationships between future-related stress and different coping styles, and the moderating effect between coping styles and living place on stress for the future. We entered the predictors in the regression model in the following steps: In Step 1: living place (Turin= 0; Naples= 1) to control for its effect; in Step 2, the three coping styles (active coping, internal coping, and withdrawal); in Step 3 the three interactions among the three coping styles (active x internal; active x withdrawal; internal x withdrawal); in Step 4 the three interactions between living place and each of the coping styles (living place x active; living place x internal; living place x withdrawal); and finally in Step 5, the three interactions among living place and the three combinations of coping styles (living place x active x internal; living place x active x withdrawal; living place x internal x withdrawal). Finally, we plotted the interaction between coping styles, as suggested by Aiken and West (1991), in order to render the findings interpretable.

RESULTS

Future-related stress in comparison with other problem domains

The adolescents perceived significantly higher stress for the future in comparison with other problem domains (Table 2). Future-related stress is followed by stress over peers, parents, leisure time, the opposite sex, self, and finally school, which appears to be the least stressful pro-
Table 2. ANOVA – Within subjects test for perception of stress in different domains.

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>School-related stress</td>
<td>2.98b</td>
<td>.72</td>
<td>857</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future-related stress</td>
<td>3.31a</td>
<td>.75</td>
<td>845</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents-related stress</td>
<td>3.17c</td>
<td>.91</td>
<td>831</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peers-related stress</td>
<td>3.23d</td>
<td>.91</td>
<td>848</td>
<td>24.57</td>
<td>6, 608</td>
<td>.0001</td>
<td>.04</td>
</tr>
<tr>
<td>Leisure-time-related stress</td>
<td>3.17e</td>
<td>.92</td>
<td>804</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opposite-sex-related stress</td>
<td>3.10f</td>
<td>.93</td>
<td>861</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-related stress</td>
<td>3.05g</td>
<td>.83</td>
<td>806</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: the superscript letters indicate that the mean value of future-related stress (always considered as the comparison term) was found significantly different from the mean values of the other kinds of stressors by the way of post-hoc test.

Table 3. ANOVA – Within subjects test for coping styles for facing future stressors.

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>N</th>
<th>F</th>
<th>df</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active coping</td>
<td>.27a</td>
<td>.21</td>
<td>916</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal coping</td>
<td>.25b</td>
<td>.22</td>
<td>916</td>
<td>163.11</td>
<td>1, 915</td>
<td>.0001</td>
<td>.15</td>
</tr>
<tr>
<td>Withdrawal coping</td>
<td>.14c</td>
<td>.18</td>
<td>916</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: the superscript letters indicate that each mean value was found significantly different from all the others by the way of post-hoc test.

Comparing the use of coping styles

When dealing with future-related stressors, the adolescents used active coping significantly more frequently than internal coping and withdrawal (Table 3).

Future-related stress and coping styles: Gender, age, and living place differences

Table 4 reports only the means and statistics referring to the main effects of the four ANOVAs 2 x 2 x 2 (as described above) while the means and the statistics referring to the interactions are reported in the text only.

Future-related stress

With respect to future-related stress the analyses revealed significant gender differences. Future stress was higher for girls than for boys. We also found significant living place differences in the total score of future-related stress. Future stress was higher for adolescents from Turin than for those from Naples. No significant age-group differences were found.

We did also find three significant interactions. The first between gender and age-group [F(2, 830)= 3.19, p<.04, η²=.01]: future-related stress did not change with age among boys, while it is the highest at 17-20 years among the girls (boys: 11-14 yrs, M=2.98, SE=.07; 15-16 yrs, M=3.01, SE=.08; 17-20 yrs, M=2.98, SE=.06; girls: 11-14 yrs, M=3.39, SE=.07; 15-16 yrs, M=3.20, SE=.07; 17-20 yrs, M=3.52, SE=.05).

The second interaction is between gender and living place [F(1, 830)= 4.82, p<.03, η²=.01]: in both places boys are less stressed than girls, however the difference between living places is greater among boys than among girls (boys: Turin, M=3.24, SE=.04, and Naples, M=2.74, SE=.07; girls: Turin, M=3.49, SE=.04, and Naples, M=3.25, SE=.06).

The third and last interaction is between age-group and living place [F(2, 830)= 5.54, p<.004, η²=.01]. At all ages, adolescents from Turin perceived higher stress with respect to those from Naples. However, the difference is greatest at 15-16 years and is the lowest at 17-20 years (11-14 years: Turin, M=3.32, SE=.06, and Naples, M=3.05, SE=.08; 15-16 years: Turin, M=3.43, SE=.05, and Naples, M=2.78, SE=.09; 17-20 years: Turin, M=3.35, SE=.04, and Naples, M=3.15, SE=.07). Finally, the interaction between gender, age-group and living place was not significant [F(2, 830)= 2.32, p=.09, η²=.01].

Coping styles

As illustrated in Table 4, no significant gender differences were found in the use of the three coping styles. However, we found significant age-group differences for all three coping styles. Both active and internal coping were reported equally by mid- and late adolescents, but early adolescents used these two styles more than the other.
two age-groups. Additionally, we found that the use of withdrawal decreased with age.

With respect to living place, we found two out of three significant differences in the use of coping styles. Adolescents from Naples scored higher than adolescents from Turin on both internal and withdrawal coping styles, but the difference was much more pronounced in the case of withdrawal.

Looking at interactions, we found one significant interaction for active coping and three out of four significant interactions for withdrawal.

For active coping, the interaction age-group by living place \( F(2, 830) = 12.27, p<.0001, \eta^2 = .03 \) was found significant. Opposing patterns can be found in the use of active coping with age in adolescents from Turin and Naples: active coping increases at older ages among adolescents from Turin, while it decreases in Naples (11-14 years: Turin, \( M=26 \), SE=.02, and Naples, \( M=36 \), SE=.02; 15-16 years: Turin, \( M=24 \), SE=.01, and Naples, \( M=26 \), SE=.03; 17-20 years: Turin, \( M=30 \), SE=.01, and Naples, \( M=23 \), SE=.02). None of the other interactions for active coping were significant: gender x age-group \( F(2, 830) = 1.35, p=.26, \eta^2 = .00 \); gender x living place \( F(1, 830) = 3.31, p=.07, \eta^2 = .00 \); gender x age-group x living place \( F(2, 830) = 2.00, p=.14, \eta^2 = .00 \).

No significant interactions were found for internal coping either: gender x age-group \( F(2, 830) = 1.39, p=.25, \eta^2 = .00 \); gender x living place \( F(1, 830) = .47, p=.49, \eta^2 = .00 \); age-group x living place \( F(2, 830) = 1.42, p=.24, \eta^2 = .00 \); gender x age-group x living place \( F(2, 830) = 1.26, p=.29, \eta^2 = .00 \).

With respect to withdrawal, we found three significant interactions:

The first is between gender x age-group \( F(2, 830) = 4.91, p<.008, \eta^2 = .01 \). Among boys, the use of withdrawal decreased with age only in the 15-16 years age group, while among girls it decreased linearly, especially between the ages of 15 and 16 (boys: 11-14 years, \( M=22 \), SE=.02; 15-16 years, \( M=21 \), SE=.02; 17-20 years, \( M=12 \), SE=.01; girls: 11-14 years, \( M=25 \), SE=.02; 15-16 years, \( M=13 \), SE=.02; 17-20 years, \( M=11 \), SE=.01).

The second significant interaction is between age-group and living place \( F(2, 830) = 10.54, p<.0001, \eta^2 = .032 \). The decrease of withdrawal at increasing ages was stronger among adolescents from Naples than among those from Turin. At 11-14 years adolescents from Naples used withdrawal about twice as much as adolescents from Turin (11-14 years: Turin, \( M=15 \), SE=.01, and Naples, \( M=32 \), SE=.02; 15-16 years: Turin, \( M=11 \), SE=.01, and Naples, \( M=23 \), SE=.02; 17-20 years: Turin, \( M=10 \), SE=.01, and Naples, \( M=14 \), SE=.02).

The third significant interaction is between gender x age-group x living place \( F(2, 830) = 3.41, p<.03, \eta^2 = .01 \). The boys from Turin used withdrawal very little at every age; the boys from Naples decreased their use of withdrawal drastically at 17-20 years; both in Turin and Naples girls greatly decreased withdrawal at 15-16 years; however, at every age, girls from Naples used withdrawal about twice as much as girls from Turin (boys: 11-14 years: Turin, \( M=11, SE=.02 \), and Naples, \( M=33, SE=.03 \); 15-16 years: Turin, \( M=13 \), SE=.02, and Naples, \( M=29 \), SE=.03; 17-20 years: Turin, \( M=12 \), SE=.02, and Naples, \( M=14 \), SE=.02; girls: 11-14 years: Turin, \( M=18, SE=.02 \), Naples, \( M=32, SE=.03 \); 15-16 years: Turin, \( M=10, SE=.02 \), and Naples, \( M=17, SE=.03 \); 17-20 years: Turin, \( M=08, SE=.02 \), and Naples, \( M=14, SE=.02 \).

Finally, the interaction between gender x living place turned out to be non-significant \( F(1, 830) = 2.74, p=.10, \eta^2 = .00 \).

Relationships between future-related stress and coping styles

As mentioned previously we used hierarchical regression analyses to analyze the direct relationships between future-related stress and different coping styles (active coping, internal coping, and withdrawal), and the indirect and potentially moderating relationships between different kinds of coping styles and between living place and the coping styles (Table 5).

We found both some direct and indirect effects \( F(13, 831) = 5.17, p<.0001, R^2 = .08 \) of coping styles on perceived stressfulness of the future (Table 5).

First, we found that the perception of the future as stressful is significantly related to the living place. Living in Naples (these adolescents were coded with 1) is negatively related to stress for the future.

Second, we found that stress for the future is positively related to active coping styles and, conversely, it is negatively related to withdrawal. In other words, adolescents who use active coping more frequently and withdrawal less frequently perceive the future as more stressful.

We also found an almost significant interaction between active coping and withdrawal. We plotted this interaction and found (Figure 1) that high levels of withdrawal are able to moderate the positive relationship between higher active coping and higher stress. That is, when adolescents use withdrawal more frequently they also perceive lower stress, regardless of how often they use active coping.

Finally, we found two significant interactions between, on one side, living place and, on the other side, internal coping and withdrawal. In this case, it was much easier to interpret the interactions than in the previous case. Our findings showed that the use of high levels of both internal coping and withdrawal is related to lower levels of stress for the future among adolescents from Naples.

**DISCUSSION**

The aim of the present study was to investigate the perceived stressfulness of the future, the coping styles used to deal with stress for the future, and the relationships...
### Table 4. ANOVA 2X2X2 – Future-related stress and coping strategies for facing future stressors; gender, age-group, and living place differences.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>Age-group</th>
<th>Living place</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SE)</td>
<td>11-14 years</td>
<td>15-16 years</td>
</tr>
<tr>
<td>Future-related stress</td>
<td>F</td>
<td>df</td>
<td>p</td>
</tr>
<tr>
<td>Girls</td>
<td>45.18</td>
<td>1,830</td>
<td>.0001</td>
</tr>
<tr>
<td>Boys</td>
<td>2.39</td>
<td>2,830</td>
<td>.09</td>
</tr>
<tr>
<td>Active coping</td>
<td>2.03</td>
<td>1,900</td>
<td>.16</td>
</tr>
<tr>
<td>Internal coping</td>
<td>3.01</td>
<td>1,900</td>
<td>.08</td>
</tr>
<tr>
<td>Withdrawal coping</td>
<td>2.83</td>
<td>1,900</td>
<td>.09</td>
</tr>
</tbody>
</table>

**Note:** significant differences were reported in bold.

1. Three cases had missing data for the gender variable.
2. One case had missing data for the gender variable.

### Table 5. Linear Regression – Coping strategies and future-related stress (total scale).

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Future-related stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>Step 1</td>
<td></td>
</tr>
<tr>
<td>Living Place (Naples = 1)</td>
<td>-.30</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
</tr>
<tr>
<td>Active coping</td>
<td>.45</td>
</tr>
<tr>
<td>Internal coping</td>
<td>.08</td>
</tr>
<tr>
<td>Withdrawal coping</td>
<td>-.29</td>
</tr>
<tr>
<td>Step 3 – Interactions</td>
<td></td>
</tr>
<tr>
<td>Active x Internal</td>
<td>.55</td>
</tr>
<tr>
<td>Active x Withdrawal</td>
<td>-.115</td>
</tr>
<tr>
<td>Internal x Withdrawal</td>
<td>.29</td>
</tr>
<tr>
<td>Step 4 – Interactions</td>
<td></td>
</tr>
<tr>
<td>Living Place x Active</td>
<td>.07</td>
</tr>
<tr>
<td>Living Place x Internal</td>
<td>-.61</td>
</tr>
<tr>
<td>Living Place x Withdrawal</td>
<td>-.77</td>
</tr>
<tr>
<td>Step 5 – Interactions</td>
<td></td>
</tr>
<tr>
<td>Living Place x Active x Internal</td>
<td>1.43</td>
</tr>
<tr>
<td>Living Place x Active x Withdrawal</td>
<td>-.27</td>
</tr>
<tr>
<td>Living Place x Internal x Withdrawal</td>
<td>-1.42</td>
</tr>
</tbody>
</table>

*** p < .001  ** p < .01  * p < .05  + p < .10.
between these two dimensions in two cities, characterized by different rates of unemployment, in the same country.

With regard to our first aim, which was to investigate the perceived stressfulness of future-related problems compared to other relevant problem domains for adolescents, as expected Italian adolescents reported the future problem domain, such as problems related to future prospects for work and employment and school and studies, to be the most stressful problem domain, this finding corresponds to results found in several previous studies more or less recent (Bobo et al., 1986; Solantaus, 1987; Stark et al., 1989; Seiffge-Krenke, 1995; Nurmi et al., 1995; Nurmi et al., 2002; Nurmi, 2002; Lanz and Castellini, 2004; Gelhaar et al., 2007; Seiffge-Krenke et al., 2008). It is interesting to note that, while living conditions for adolescents have changed dramatically over the past 50 years, adolescents have always expressed fears and worries about their future. The fact that adolescents become increasingly interested in their future during the transition to young adulthood may be one explanation for this. Because of their newly acquired cognitive skills, they are able to think about their future, to reflect on normative standards and deadlines for future-related goals, and to set goals and expectations (Heckhausen, 1999). Reaching future-related goals, such as graduating from school, finding a job, leaving one’s family home, cohabitating or marrying, is also related to identity. Education and preparation for working life are, in fact, among the most important developmental tasks. For example, in a recent study carried out in Italy (Sestito, 2004), all adolescents indicated getting a diploma and finding a rewarding job as important markers of becoming adults. Thus, it is not surprising to find that the future is the most stressful problem domain also for our adolescents. However, this finding might also be explained by the social and economic characteristics of today’s society. In times of uncertainty, insecurity, and precariousness, reaching one’s own future-related goals is difficult: because of the constraints of today’s social circumstances, for many adolescents and young people the future depends more on existing opportunities than on their personal choices. As a consequence, thinking about the future, which is fundamental for young people as it is future expectations and aspirations that direct an individual’s life course, may become very stressful. Future goals may turn into sources of stress when they are unattainable by the individual because there is a discrepancy between the desired goals and the actual possibility of reaching these goals. It follows from this that, in Italy, young people prefer to focus on the present rather than on the future, reducing their future planning and postponing their entrance into adulthood (Buzzi et al., 2007). Furthermore, our findings underline the fact that adolescents are well aware of the availability of opportunities and resources in their own context. Adolescents seem to have a detailed knowledge of the labour market and the social context in which jobs are embedded. On the other hand, the structure of a given society in a given historical period may or may not provide equal opportunities for education and entry into the labour market (Schoon and Parsons, 2002). As anticipated, the current youth unemployment rate in Italy is one of the highest in Europe (ISTAT, 2008a). It is thus understandable that adolescents perceive unemployment as a very stressful issue: in Italy today, difficulty in finding a job is not a potential risk one may encounter, but a fact that characterizes the present situation. This might increase the level of stressfulness associated with unem-

**Figure 1.** Interaction between active coping and withdrawal on future-related stress – total sample.
employment, which in itself is already perceived as stressful, as it is related to low levels of life satisfaction (Diener et al., 1999; Fahey and Smyth, 2004; Inglehart and Klingemann, 2000). As a consequence of the delayed entry in the labour market, many young people now choose to go on to higher education after finishing their compulsory education. In almost all Western countries, remaining in the education system seems to be a rational response to the uncertainty of today's labour market (Pinquart and Silbereisen, 2006).

With respect to our second aim of investigating the kinds of coping styles (active, internal, and withdrawal) that Italian adolescents use most often in facing future-related stressors, as anticipated based on previous research which has found that European adolescents generally use so-called functional coping styles more often than dysfunctional coping (Gelhaar et al., 2007), we found that adolescents use active and internal coping (e.g. social support seeking, problem solving) more frequently than withdrawal (e.g. emotional regulation, denial, etc.) in the future-related problems domain. In other words, the adolescents seem to cope actively and competently. However, we will postpone reflection on how effective the so-called functional coping styles really are in facing certain kinds of stress to a later stage of the discussion.

With respect to our third aim of analysing the presence of differences related to gender, age, and living place in the perception of the future as stressful and in different kinds of coping styles, our expectations were only partially confirmed by our findings. With respect to gender, as expected, we found that girls perceived more stress than boys with regard to future-related problems and we found no gender differences in the use of coping styles (Frydenberg, 1997; Frydenberg and Lewis, 2000; Hampel and Petermann, 2005; Seiflge-Krenke and Beyers, 2005; Gelhaar et al., 2007). However, the fact that the girls perceive the future as more stressful than boys may be interpreted in light of the present social and economic conditions of the country where the study was conducted. In fact, some recent national statistics (ISTAT, 2008a, 2008b) reveal that young women in Italy usually reach higher levels of education than young men, but despite their better education they still have greater difficulties than men in finding a job and in combining a career with family life.

Concerning age-group differences, none of our expectations were totally confirmed by the findings. In fact, contrary to what we expected, older adolescents did not perceive their future-related problems as significantly more stressful than younger adolescents. However, there is some indication that future-related stress increases at older ages especially among the adolescents from Naples.

Furthermore, older adolescents did not use active and internal coping styles more than younger adolescents but rather they used all three different coping styles (active, internal and withdrawal) less than younger adolescents did. The image that emerged from our findings is that of young people who are facing serious and, at least in part, unexpected and unpredictable social changes in terms of uncertainty and precariousness. In order to face these changes, the coping styles adolescents learn and exercise during their adolescent years are probably perceived as inadequate and older adolescents and young adults, who are probably also more sensitive to the social and economic characteristics of their context than we might have expected (Crockett, 1997), may decide that their efforts to cope with worries about the future would not lead to any concrete results and therefore these efforts may be abandoned as young adulthood approaches. Our study is cross-sectional and does not allow us to confirm this interpretation. We certainly need further and longitudinal studies to explore in greater depth this important point, which could also have important implications for the future psychosocial adjustment and well-being of the current generation of young adults.

As for living place differences, considering that the rate of unemployment and social and economic conditions in general are worse in Naples than in Turin, we anticipated that adolescents from Naples would perceive greater stress for the future than adolescents from Turin. We found that the opposite was true. It seems reasonable to interpret this unexpected finding as follows. First, it is possible that when the actual situation people live in is exceedingly stressful and outside their control, they adapt to it, which is likely to result in a lower perception of stress. On the contrary, when the context seems to offer some opportunities for positive change despite numerous constraints and difficulties, as is likely the case in Turin, the situation may be perceived as more stressful. Second, it is possible that the adolescents from Naples, probably due also to the unique situation in which they live, use coping styles that, under conditions of extreme uncertainty, are more functional than those used by their peers in Turin. However, these reflections would be best discussed as a whole after having commented on the findings about the relationships between stress for the future, coping styles, and living place.

With respect to differences related to living place, our expectation that the adolescents from Naples would have used withdrawal more than adolescents from Turin in dealing with future-related stressors was confirmed. We also found that the adolescents from Naples used internal coping, or rather coping styles involving cognitive processes oriented towards searching for a solution, recognizing one's own limitations, and being willing to accept compromises, more frequently than those from Turin. At this stage of the discussion, our findings seem to confirm what other scholars (Pinquart and Silbereisen, 2004) underlined previously: when stressors are extensive and beyond the control of individuals (as seems to be the case particularly for the adolescents from Naples), efforts to reduce emotional tension and accept one's own limited
power to change the situation might be more functional than other ways of facing the problem. Clearly, this study has left unanswered the question of the potential risks tied to a generation of young adults and future citizens who may have not fully developed the ability to assume personal responsibility. Nevertheless we also found some interesting differences between adolescents from the two cities in age-related patterns of coping styles: at older ages active coping increased among those living in Turin and withdrawal sharply decreased among those living in Naples, especially among girls. Although with several cautions related to the cross-sectional design of the study, we think that reasonable interpret these findings as indicators of the willing of youths of actively intervening on their future. At this stage, the open question became for how long these youths will continue to pursue taking on some responsibility on their future if nothing will be offered to them by the society in terms of opportunity for job and housing.

With respect to the relationships between the perception of the future as stressful and different kinds of coping styles in two different living places marked by differences in terms of unemployment and salary rates, we predicted that active and internal coping styles would more likely be negatively related to stress in Turin, and that withdrawal would more likely be negatively related to stress in Naples. We also anticipated that withdrawal would have a moderating role in the relationship between active and internal coping and future-related stressors. Only the two last expectations were confirmed by our findings. We found that lower perception of future-related stressors is related to withdrawal and that higher levels of withdrawal are able to moderate the relationships between stress and active coping. In addition, we found that the use of internal coping and withdrawal is more effective in protecting the adolescents from Naples from higher levels of stress.

Contrary to our expectations, we found a positive, rather than a negative, relationship between active coping and stress for the future and we found no relationship at all between internal coping and stress.

It is our feeling that these findings are interesting and valuable, far exceeding our expectations. Italy at present provides an interesting context for this kind of study. Because it offers such limited opportunities for the future, high levels of active and internal coping might not be adaptive to cope with future-related stressors, especially when the individual does not have the resources to change them (Pinquart and Silbereisen, 2004). For this reason, we anticipated that the moderating role played by withdrawal associated with active coping in reducing future-related stress perception may be greater in Naples than in Turin. However, we would never have expected to find that in both cities active coping can be dysfunctional and that internal coping is barely – if at all - related with stress. This whole set of findings, although they certainly require confirmation from broader and longitudinal studies, suggest to scholars at least two different kinds of reflection. The first reflection refers to the need to look further at what is really functional and dysfunctional in the opinions of our participants, perhaps by combining qualitative with quantitative studies. Assuming that the goal of the individual is to use his/her coping strategies to reduce the level of stress he/she perceives, our findings require us to question whether active and internal coping are more functional than withdrawal, at least when it comes to the future-related problems domain and in current Italian society. The second reflection refers to the need to constantly bear in mind that social change is pervasive and happens very fast and that sometimes our instruments to capture these complex phenomena and their effects on individual adjustment and well-being may rapidly become out-dated. Constant investigation and updating obviously require a great effort, probably greater than the resources presently available for research allow.

This study has several limitations, some of which have already been mentioned, such as the cross-sectional nature of the design, the fact that only two specific geographical locations were considered, as well as the selection of the instruments used (there are clearly several alternative options for analysing the relationships between stress and coping). Nonetheless, we intend to continue this research, comparing the future-related domain with the other problem domains relevant to adolescent adjustment and development, such as the above-mentioned parents, peers, opposite sex, leisure, and school domains.

Despite its limitations, this study also has some merits. It has underlined the need to investigate further and in greater depth what can really be considered functional and dysfunctional in the lives of people living in a social and economic context that is often beyond the individual’s power to control and change. We think that this point should be carefully considered when developing future social policies and applying psychological interventions addressed to youth.

Furthermore, this study has highlighted the need of investigating further the relationships between stress and coping in adolescence going beyond the descriptive level of the research. We think that also in this field of research, as Jessor has recently underlined in the case of adolescent risk behaviour (Jessor, 2008), the preoccupation of scholars has to move far from the description of differences in means or prevalence levels to investigate the structures of relations among theoretical constructs or variables, structures that make logical sense out of the variation observed at the descriptive level. At the extent those relations among variables are specified by a satisfactory theory, they should prevail in any context or setting to which the theory can be applied, independently from the differences in means and prevalence. In the two living contexts considered in this study, we found that the structures of relationships between stress and coping are much more similar than we would have expected consi-
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Ministero della Pubblica Istruzione.


