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COPING STRATEGIES: EVIDENCE FOR CROSS-CULTURAL DIFFERENCES? A PRELIMINARY STUDY WITH THE ITALIAN VERSION OF COPING ORIENTATIONS TO PROBLEMS EXPERIENCED (COPE)

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Summary—The internal structure of the COPE inventory (Carver, Scheier & Weintraub, 1989), a questionnaire which measures 15 different coping strategies, was studied. The Italian version of COPE was administered to 521 undergraduate students. Alpha and test-retest reliabilities were very similar to those obtained in the above American study. A rotated factor analysis resulted in 13 factors, which came out in a different order with respect to those obtained in the original study. A second-order factor analysis yielded five factors similar to those obtained by Carver *et al.*, except for 'Turning to religion', which was present in the Italian study only. It is concluded that the Italian version of COPE has good construct validity and that the traditional taxonomy of coping strategies should also be studied in the light of transcultural differences. © 1997 Elsevier Science Ltd. All rights reserved

INTRODUCTION

Interest in coping is widespread in psychology. Coping may be defined as a process implying the use of a series of skills and strategies adopted to face stressful and/or difficult situations. There are two main points embedded in the above definition.

First, coping is a process: according to Lazarus (1966), Folkman and Lazarus (1980, 1985), well-being and mental health are not only direct functions of the amount and level of stress, but also depend on how people appraise and face critical situations. Second, the number of coping strategies is potentially infinite, because every person can develop his own particular method to cope with stress, although through social learning people acquire a few culturally established and limited in number ways of overcoming stress. So comparison of coping strategies in different countries may reveal differences in coping taxonomy and possibly uncover cultural peculiarities.

Traditionally, theory stresses two major kinds of coping (Lazarus, 1993): problem-focused and emotion-focused. The former deals with changing something in the situation, acting directly in order to remove the cause of stress; the latter aims at reducing or managing the emotional distress associated with the situation. We believe that the subdivision into two major kinds of coping is simple and economical, although it cannot take into account the potential variety of coping mechanisms: some strategies may be aimed both at changing the situation and at managing the emotion; in addition, in our opinion, avoidance strategies form a homogenous group which is slightly different from problem-focused and emotion-focused strategies. For instance, taking drugs, denying the situation or turning it into ridicule may be the only resources for people with poor problem-solving skills and/or lacking in emotional insight. Lastly, strategies which encompass spiritual themes (turning to religion, meditation, etc.) probably represent something more than simple means of obtaining relief from stress.

Several questionnaires have been developed to measure coping strategies.

The Ways of Coping Questionnaire (Folkman & Lazarus, 1988) measures eight different dimensions: Confrontive coping, Distancing, Self-controlling, Seeking social support, Accepting responsibility, Escape-avoidance, Planful problem-solving, Positive reappraisal. The Coping Style Questionnaire (Billings & Moos, 1981) describes five modes of coping: Active-cognitive, Active-behavioral, Avoidance, Problem-focused and Emotion-focused. The Miller Behavioral Style Scale

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(Miller, 1987; Muris, van Zuuren, de Jong, de Beurs & Hanewald, 1994) takes into consideration Monitoring and Blunting strategies. The Coping Strategy Indicator (Amirkhan, 1990) measures three coping styles: Problem-solving, Seeking social support and Avoidance. The Coping Inventory for Stressful Situations assesses Task-, Emotion- and Avoidance-oriented coping (Endler & Parker, 1994), and lastly the Coping Orientations to the Problems Experienced (COPE; Carver, Scheier & Weintraub, 1989) describes 15 different coping modalities and makes several distinctions within the overall categories of problem-focused and emotional-focused coping (e. g., active coping, planning, restraint coping, seeking social support for emotional reasons, focus on and venting emotions, positive reinterpretation, acceptance, etc.).

Among the questionnaires mentioned above, we focused our attention on COPE (Carver *et al.*, 1989) because it supplies unambiguous, large and theoretically derived categories of coping. It also takes into consideration strategies not specifically covered by other questionnaires such as turning to religion, acceptance, use of humor and denial. Overall we believed that COPE was the best questionnaire available from both quantitative and qualitative points of view.

The aim of the present paper was to verify the internal structure of the Italian version of COPE and to compare it with the structure obtained by Carver *et al.* (1989), so as to obtain preliminary information on the possible presence of cultural differences in coping.

METHOD

Instrument

The COPE (Carver *et al.*, 1989) is a 60-item self-report questionnaire which incorporates 15 distinct scales, each composed of four items: *Active coping* (taking active steps to circumvent the stressor), *Planning* (thinking about how to cope with a stressor), *Suppression of competing activities* (trying to avoid becoming distracted by other things), *Restraint coping* (waiting until an appropriate opportunity to act presents itself), *Seeking social support for instrumental reasons* (seeking advice, assistance or information), *Seeking social support for emotional reasons* (getting moral support), *Focusing on and venting of emotion* (ventilating feelings), *Behavioral disengagement* (reducing one's effort to deal with the stressor), *Mental disengagement* (distracting from thinking about the problem), *Alcohol and drug disengagement* (alcohol and drug use), *Denial* (denying the presence of the stress), *Positive reinterpretation and growth* (construing a stress transaction in positive terms), *Acceptance* (accepting reality), *Turning to religion* and *Humor* (turning the situation to ridicule).

The instructions ask the *S* to indicate "what you *generally and usually* do and feel when you experience stressful events".

In the original study, a Principal Components factor analysis (with an oblique rotation) on the responses of 978 North American undergraduates yielded 11 factors easily interpretable according to a priori assignments of items to scales, except for two cases. The two scales regarding social support loaded the same factor, and Active coping and Planning also loaded the same factor.

Correlation among the COPE scales were, for the most part, not strong (0.20–0.30).

Lastly, a second-order factor analysis (using scale totals as raw data) yielded four different factors: active coping, social support and ventilating emotion, avoidance, and acceptance-positive reinterpretation.

Subjects and procedure

Three independent translators translated the COPE into Italian and later reached agreement on a common version. At this point, an English-speaking teacher with expertise in psychology back-translated the questionnaire into English. The provisional Italian version of COPE was the result of a comparison between the original and the back-translated version. The last phase of the process consisted in administering the Italian version of COPE to 20 *Ss*, to gain some feedback about the clarity and intelligibility of the items. The questionnaire was administered to 521 undergraduates attending the University of Padova (North Italy) and a series of statistical analyses on the collected questionnaires was performed.

RESULTS

The 521 *S*s (348 males and 173 females) had a mean age of 23.2 years (Standard deviation 1.8). Alpha and test-retest reliabilities for each COPE scale are shown in Table 1.

*S*s' responses were subjected to a Principal Components factor analysis with orthogonal rotation (Varimax). The unrotated matrix yielded 16 factors with eigenvalues greater than 1.0. A rotated factor solution with 13 factors explaining 58% of total variance was obtained by means of the Cattell 'scree test' and comparison of various factorial structures.

As shown in Table 2, a structure seemingly close, but not equal, to the original one obtained by Carver *et al.* (1989) was found. The first factor captured the two social support scales, the second the scales of Activity and Planning (seven items out of eight), and the next three factors contained Alcohol-drug disengagement, Turning to religion and Humor. The sixth factor corresponded to Acceptance, the seventh to Suppression of competing activities, the eighth to Focus on and venting emotion, the ninth to Positive reinterpretation and growth, the tenth to Denial (three items out of four), the eleventh to Restraint coping, the twelfth to Behavioral disengagement (three items out of four) and the thirteenth to Mental disengagement (two items out of four).

A second-order Principal Components factor analysis was then performed using the original scale totals as raw data. The unrotated matrix yielded five factors with eigenvalues greater than 1.0., explaining 59.1% of total variance; an orthogonal rotation (Varimax) was used to improve the interpretability of the solution. The final factor analysis produced five second-order factors: Social Support/Ventilating emotions, Avoidance strategies, Positive attitude, Planning/Activity and Turning to religion (Table 3).

Table 1. Cronbach's Alpha reliabilities and test-retest reliabilities of COPE scales: comparison between Italian and American versions

Cope scales	α Italian version	α American version	r Italian version*	r American version**
Active coping	0.43	0.62	0.45	0.69
Planning	0.76	0.80	0.60	0.69
Suppression of competing activities	0.66	0.68	0.57	0.64
Restraint coping	0.60	0.72	0.52	–
Seeking soc. support instrumental	0.81	0.75	0.76	0.76
Seeking soc. support emotional	0.81	0.85	0.79	0.72
Pos. reint. & growth	0.67	0.68	0.70	0.63
Acceptance	0.67	0.65	0.47	0.61
Turning to religion	0.92	0.92	0.92	0.89
Focus on & venting emot.	0.74	0.77	0.39	–
Denial	0.57	0.71	0.50	–
Behavioral disengag.	0.46	0.63	0.34	0.42
Mental disengag.	0.31	0.45	0.54	0.56
Alcohol-drug diseng.	0.93	–	0.60	0.61
Humor	0.83	–	0.72	–

Note: intervals: *4 weeks; **3 weeks

Table 2. Rotated principal component factor analysis of COPE items

Factor*	Eigenvalues	Percentage of variance explained
Seeking social support	6.2	10.3
Activity & planning	5.6	9.3
Alcohol-drug disengag.	4.2	7.0
Turning to religion	3.3	5.6
Humor	2.6	4.3
Acceptance	2.4	3.9
Suppr. of competing activities	1.9	3.3
Focus on & venting emot.	1.8	3.1
Pos. reinterpretation	1.5	2.5
Denial	1.3	2.3
Restraint coping	1.3	2.2
Behavioral disengag.	1.2	2.1
Mental disengagement	1.2	2.0

Note: * items with loading greater than .40.

Table 3. Rotated principal component factor analysis of 15 original COPE scales (second-order factor analysis)

Cope scales	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Seeking Soc. Sup. emotional	0.89				0.14
Seeking Soc. Sup. Instrum.	0.82				0.16
Focus on & ventilating	0.74				−0.15
Denial		0.66			0.33
Humor		0.64	0.28		
Alcohol-drug disengagement		0.64	−0.22		
Behav. diseng.		0.56		−0.28	
Mental diseng.		0.52	0.36		
Acceptance		0.16	0.72		
Restraint cop.			0.60		0.32
Positive reinter.			0.58	0.37	
Suppression				0.78	0.18
Planning		0.34		0.73	
Active coping		0.46		0.57	
Turning to relig.	0.12				0.79

DISCUSSION AND CONCLUSIONS

The internal consistency of COPE scales computed on the Italian group is quite similar to the original one, except for Active coping, Denial, and Behavioral disengagement. A closer inspection revealed that one item of each scale was poorly formulated when compared to the American version (that is, these items communicated different meanings). In order to verify the influence of these 'bad items' on the internal consistency of the scales, the reliability of Active coping, Denial and Behavioral disengagement were recomputed after omitting the poorly formulated items. As expected, the alpha values were close to the original ones (0.70, 0.59 and 0.54 respectively).

Test-retest reliabilities were very similar to the original ones obtained in the American study, except for Active coping, which was probably strongly influenced by the presence of the 'bad' item.

As in the Carver factor analysis, the theoretically distinct scales which loaded the same factor measured very similar concepts. It is in fact very difficult to distinguish between social support aimed at obtaining advice and information, and social support aimed at obtaining reassurance and encouragement. Equally, planning is one stage of a more general strategy aimed at putting into practice an action, even though it is possible to undertake an action without planning it. Planning and Action in fact were less well correlated compared to the two forms of Social support. It is noteworthy that our factors came out in a different order than those of the original study on COPE. Principal Component Analysis works in such a way that the factors explain a progressively smaller variance: in the Carver analysis, the first four factors were Active and Planning, Suppression, Restraint coping and Seeking social support, whereas in our analysis they were Seeking social support, Active and Planning, Alcohol and drug disengagement, and Turning to religion.

The second-order factorial analysis showed five different coping strategies, partly similar to those obtained by Carver *et al.* (1989). Interestingly, in our study Turning to religion loaded one separate factor, whereas in the original study it failed to load any factor.

Cultural differences may have played some role in determining the results of our two factor analyses: it is probable that Europeans commonly use less 'rational' coping strategies than North Americans.

Another study on the internal structure of COPE obtained similar results: a Principal Components factor analysis on the responses of a group of 420 English undergraduates (Fontaine, Manstead & Wagner, 1993) yielded exactly the same first four factors found in the present study. Further, Phelps and Jarvis (1994) in a second-order factor analysis on the responses of 484 North American adolescents (age 14–18), found four higher-order factors similar to those of Carver *et al.* (1989) and, in this case too, Turning to religion and Humor (not present in the Carver study) failed to load any factor.

Four conclusions may be drawn from the results reported here:

The original factor structure of COPE is not fully supported by our data. However, we would like to stress that with so many factors, it was almost impossible to replicate it perfectly and we

believe that the Italian version of COPE has a factor structure which is not very different from the American version.

Our results offer a preliminary cross-cultural validation to the internal structure of COPE.

Our analyses confirmed the presence of several different coping strategies, not necessarily fitting the original division into Problem-and Emotions-focused strategies.

Lastly, we detected some differences in the variance explained by each factor which we tentatively interpret as cultural differences. However, there are more similarities than differences in the frequency of coping strategies used by Western populations.

There are several limitations to the present study. First, in order to consider our results as reliable it is necessary to replicate them in other normal and clinical groups. Second, we analysed the COPE version with 60 items and 15 scales, whereas Carver *et al.* (1989) used a version with 52 items and 13 scales. Third, more sophisticated approaches such as confirmatory factor analysis may offer the clearest results about possible differences and similarities in coping strategies across different cultures. For all these reasons, our results need to be treated with caution.

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