Culture, Stress and Coping:
Socio-Cultural Context Influence on Coping Types among Russians

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Abstract

The paper presents a new psychometric adaptation of the cross-cultural coping scale for the Russian-speaking sample (Cross-Cultural Coping Scale by B. Kuo *et al.*, 2006, Canada: Kuo, Roysircar, Newby-Clark, 2006) and a research made with its help, answering the questions: Do Russians cope with stress? What are socio-cultural contexts of coping in the time of cultural transition? The tool explores the influence of the socio-cultural context on the respondents' choice between three types of coping. The influence of cultural context on coping and its intensity has been confirmed in this study. The situational context has the greatest impact on the choice of *collective* coping among Russian respondents. In general Russians evaluate more acute and important stress in the situations Health/Illness than in Job/Career context. There are obvious relations between the choice of *avoidance* coping and the respondents' age in the career scenario. In both contexts people use *engagement* coping (self activity) more actively and are less inclined to *avoid* difficulties. The choice of coping type is affected by a group of factors: self-concept traits (independent or interdependent selves), stress level, type of values, life satisfaction.

Introduction

Social processes and changes in subject's life style affect the level of his/her efficiency, constructive or destructive coping types significantly. It is important to study coping behavior, its determination and consequences in the fundamental context that connects the individual and his environment – that is culture (see R. Moos, 2006 / ed. Wong and Wong; Kuo, 2011).

Russians as well as any other cultures, have some specific culturally determined stress perception and coping strategies. They correspond to personal dispositions, gender, age, stress-coping dynamics, and ways of eliminating stress by training and self-learning. It means that the complex and ever-changing system of meanings - ideas, norms, beliefs, values, shared and transferred by culture representatives to each other - prescribes subject's behavior, influences him diversely, depending on race, ethnos or minority/majority affiliation (Kuo, 2012; Triandis, 2007).

Method

Research Design

The purpose of this study has been to test the model of socio-cultural coping contextualization, created by the authors, according to which the contextualization is a cultural indicator, the extent which shows how culture promotes behavioral diversity in corre-spondence with its specific norms, values, and rules (a context) (D. Matsumoto, 2002). We mean stress and coping perception and evaluation. One of our aims is to test a hypothesis in which stress-evoking situational contexts (health/illness; job/career), have a more obvious influence on three types of coping: *collective* coping (together with others), *engagement* coping (self activity) or *avoidance* coping. Which type of coping has been more socio-culturally or contextually determined and why?

The methods have been arranged in a special set by agreement with the Polish colleagues in order to create a common cross-cultural database (Kwiatkowska, 2013).

Participants

The *CCCS - Cross-cultural coping scale* adaptation involved 417 respondents (168 men and 249 women) aged 18 - 68 (*m* = 29.38 yrs old; *SD* = 10.70). The respondents are undergraduate students (*n* = 171 or 41%), working specialists with secondary technical education and employees with graduate degrees (*n* = 137 or 33%), working part-time students (*n* = 94 or 23%), seeking jobs (*n* = 7 or 2 %).

Measures

Our task was to adapt *Cross-cultural coping scale (CCCS)* by Kuo, *et al*. (2004, 2006) for the Russian-speaking sample, including projective situations in order to create a Russian-language measure on its basis. The *Cross-cultural coping scale* was developed by Ben Kuo and his colleagues in 2006 at the University of Windsor in Ontario, Canada (Kuo, Roysircar, & Newby-Clark, 2006). It represents a scale consisting of 27 items to define coping significance in predetermined "career" and "illness" situations (scenarios). One item asks a respondent to assess stress level in the given situation, the other 26 reveal the significance of three coping types: *collective*, *avoidance* and *engagement* coping, assuming subjective activity in a stressful situation.

The respondents have been offered two difficult situations related to their job (career) and health (illness). On reading the scenarios, respondents have to imagine themselves in the given situations and rate their stress from 1 (non-stressful) to 6 (absolutely stressful) by a Likert scale. Further, the respondents were asked to choose different behavior patterns presented in 26 items and rate them according to the subject's perception of the offered scenario by a 6-point Likert scale from 1 (absolutely inaccurate) to 6 (absolutely accurate). This coping assessment enables us to define a contextually-situational factor in the predetermined situations in accordance with a stressor / difficulty. We have implemented a primary adaptation of Kuo`s measure for the Russian-speaking respondents: it includes the questionnaire statements translation, editing of its definitions according to the Russian grammar and semantics and the psychometric validation. It is necessary to admit that we've made a mistake in translation and item # 19 resulted in the opposite meaning. When processing statistical data, we took that into consideration and presented the results with this statement excluded from the analysis.

Individualistic and collectivistic values have been measured with the help of the Shalom Schwartz and Wolfgang Bilsky scale (Schwartz & Bilsky's, 1990).

Interdependent Self and Independent Self is a variant of a Self-concept/Self-esteem research technique, created to fix dependability on the nearest environment (others) by Singelis (*The Self-Construal Scale, SCS*, Singelis, 1994).

Religiosity. The statement of the religiosity level was preceded by the questions about whether the respondent professed any religion and which one. Then the participant was asked to determine his religiosity with a 10 points scale, regardless of whether he was a believer or not.

Level of confidence, feeling of happiness, life satisfaction. To measure each of these parameters, respondents were asked to answer a related question and to rate their level of confidence, happiness and life satisfaction from 1 to 10 points.

Self-esteem level. For measuring self-esteem we used the question: «to what extent do you agree with the following statement: "I have high self-esteem"». The respondents rated their replies from 1 (absolutely disagree) to 5 (absolutely agree).

Socially demographic control variables. Respondents were also asked to indicate their age, gender and education.

Statistical analysis

The data analysis was performed by SPSS Statistics 19.0. The following methods were used: descriptive statistics, reliability analysis (Cronbach's α coefficient, Pearson`s correlation coefficient, Guttman`s coefficient), comparative analysis (Student's *t*-test), regression analysis, ANOVA - repeated measures analysis of variance (Pillai trace, Fisher's F-test). Reliability analysis allowed us to determine the internal consistency of the statements by Cronbach's α coefficient; the statements homogeneity was determined with the help of Guttman half-split coefficient. To identify gender differences, we used Student's t-test. We applied correlation analysis with Pearson coefficient for determining the external validity of CCCS and *Way of Coping Questionaire* (WCQ). The prediction of coping types by dispositional characteristics in different contexts was determined by the regression analysis. ANOVA was used to determine the impact of the situation on the choice of a particular type of coping.

Results

1. Primary Russian validation of B. Kuo's CCCS (Cross-Cultural Coping Scale)

Psychometric test data submitted the following results - the high level of questionnaire items consistency for the entire scale taking into account the situational context (α = 0.846) has been derived. Half-splitting (Guttman coefficient) determined a good level of test homogeneity in general (H = 0.752). But inter-items correlation occurred within the interval ($0.06 < r < 48$), reflecting rather a weak relation of a few questions with the overall scale. Therefore, we have made the assessment of the scale reliability and homogeneity separately for different contextual situations. (*cf*. Tables 1 and 2).

Table 1
Consistency and homogeneity of items in CCCS (Kuo et al., 2006) considering a situational context: psychometric scale assessment in "Career" scenario (n = 417)

Coping types	Cronbach's α	H – Guttman	Inter-item correlations (r)
Collective coping	0.71	0.67	0.33-0.54
Avoidance coping	0.61	0.58	0.08-0.44
Engagement coping	0.67	0.66	0.20-0.49

Table 2
Consistency and homogeneity of items in CCCS (Kuo et al., 2006) considering a situational context: psychometric scale assessment in the "Illness" scenario (n = 417)

Coping types	Cronbach's α	H – Guttman	Inter-item correlations (r)
Collective coping	0.81	0.84	0.32-0.65
Avoidance coping	0.64	0.55	0.10-0.32
Engagement coping	0.66	0.56	0.09-0.38

Based on the data presented in Table 1, it could be proved that Cronbach α for all scales in both situations are staying within the acceptable interval ($0.55 < \alpha < 84$). But inter-item correlation between *avoidance coping* (in both scenarios) and e*ngagement coping* (in Illness scenario) had a few understated values of several points. According to the procedure outcome, Guttman half-splitting ratio showed a good result for all coping scales in the contexts of the health/illness and career scenarios. The external validity has been tested by comparing CCCS with the well-known *WCQ coping scale* by Lazarus and Folkman, 1988 (*cf*. Tables 3 & 4).

Correlations between CCCS (Career scenario) by B. Kuo and WCQ by Lazarus and Folkman (n = 158)

WCQ: coping-strategies	Collective Coping	Avoidance coping	Engagement coping
Confrontive Coping		0.199*	
Distancing		0.370**	
Self-Controlling			0.348**
Seeking Social Support	0.380**		
Accepting Responsibility	0.196*	0.187*	
Escape / avoidance		0.434**	
Planful Problem Solving			0.568**
Positive Reappraisal			0.368**

Note: *$p < 0.05$; **$p < 0.01$

Table 4

Correlations between CCCS (Illness scenario) by B. Kuo and WCQ by Lazarus and Folkman (n=158)

WCQ: coping-strategies	Collective Coping	Avoidance coping	Engagement coping
Confrontive Coping	0.188*	0.189*	
Distancing		0.298**	0.184*
Self-Controlling			0.320**
Seeking Social Support	0.377**		
Accepting Responsibility	0.200*		
Escape / avoidance		0.431**	
Planful Problem Solving			0.432**
Positive Reappraisal			0.419**

Note: *$p < 0.05$; **$p < 0.01$

Relevant correlations between both questionnaires have been identified, which is confirming the external validity of B. Kuo's measure - CCCS. According to the results of the psychometric validating, Kuo's measure could be used to determine the intensity of collective, avoidance and engagement coping in specific projectively given contexts or situations. At the same time, we fairly admit, that the results obtained with the help of Lazarus and Folkman's WCQ, which we adapted into the Russian language earlier (2003), give sometimes neither less diverse nor less accurate ties of individual coping strategies with a context.

2. Stress-coping levels and relations of coping with dispositional variables in different contexts

We have obtained the following results. Russian participants may be characterized by average levels of religiosity ($m = 4.88$), confidence in others ($m = 5.34$), self-esteem ($m = 2.93$) and happiness, and life satisfaction levels are slightly above the average ($m_1 = 7.22$; $m_2 = 6.81$). The stress levels of the offered scenarios are rated by the respondents as moderate, but the Illness scenarios evoke higher stress. The respondents have more intensively expressed Interdependent Self along with the prevailing individualistic values. Coping intensity in the offered scenarios is presented in Table 5.

Table 5

Coping intensity in different contexts (scenarios)

CCCS: coping types	Career		Illness	
	M	SD	M	SD
Collective Coping	3.456	0.848	3.722	0.928
Avoidance Coping	3.043	0.670	2.980	0.694
Engagement Coping	4.261	0.726	4.208	0.723

However, the obtained results of single-factor analysis of variables confirm the greater intensity in both contexts only for *collective coping*. Although it could be supposed that a more structured and specific situation of occupational stress would have allowed us to use all types of coping almost equally, in the more definite Illness scenario, the respondents consistently choose *engagement coping* first, trying to interact directly and actively with the problem, and then, they used collective coping and finally, the avoidance one. Overall, the Russians tend *least of all to* avoid situations presented in the suggested contexts, choosing active interaction with the problem and *collective coping*. Turning to the help of *collective coping* at the Illness context exactly demonstrates the modern state of the medical care system in Russia, rather unreliable in the opinion of participants, lacks confidence in its capabilities. If it is possible to help oneself or one's relations, people prefer to do it with the help of others. At the same time coping with family issues (important and complicated for most participants) the respondents tend to choose *avoidance coping*, taking the opportunity to postpone their decision (Gushchina, 2013).

3. Predicting probability of coping types in certain contexts with the help of dispositional variables

A group of factors are influencing the respondents' *collective coping* choice in the Career context such as: Interdependent Self ($\beta = 0.242$; $p = 0.000$), religiosity ($\beta = 0.178$; $p = 0.000$), stress level ($\beta = 0.137$; $p = 0.002$), collectivistic values ($\beta = 0.120$; $p = 0.017$), happiness ($\beta = 0.094$; $p = 0.038$). Two major factors – Independent Self (β

$= 0.141$; $p = 0.004$) and respondents' age ($\beta = 0.140$; $p = 0.005$) are predicting *avoidance coping* in the Career context. *Engagement coping* in the job problems scenario has been chosen when the following factors have major influence: individualistic values ($\beta = 0.183$; $p = 0.000$), life satisfaction ($\beta = 0.151$; $p = 0.001$), Independent Self ($\beta = 0.140$; $p = 0.006$), Interdependent Self ($\beta = 0.125$; $p = 0.009$). The stress level has negative influence in this case ($\beta = - 0.133$; $p = 0.004$). It could be seen that the *engagement coping* choice in the Career context is caused by low stress, which is typical for 14% of the sample: stress level has stimulated or restrained subject's activities. Individualistic values and life satisfaction promote activity, while dependence or independence of Self is probably insufficiently significant in this situation, not being a coping factor (this result demands more data and clarification).

Analyzing regression analysis results in the Illness context we could see that the *collective coping* choice is affected by a group of factors: Interdependent Self ($\beta = 0.210$; $p = 0.000$), stress level ($\beta = 0.185$; $p = 0.000$), religiosity ($\beta = 0.161$; $p = 0.001$), life satisfaction ($\beta = 0.133$; $p = 0.004$). Notably Interdependent Self has the greatest influence on the collective coping choice in the Illness context scenario as well as in the Career issues context.

Avoidance coping use in the Illness scenario is distinctively influenced by life satisfaction ($p = 0.017$). Life satisfaction and being healthy in particular, is very peculiar for the young people; it is what determines their avoiding health/illness problems. Our previous study showed that young respondents (university students) mentioned that headaches were the only health problem in the given context (Gushchina, 2013).

Engagement coping in the Illness context is chosen under the influence of variables: life satisfaction ($\beta = 0.236$; $p = 0.000$), individualistic values ($\beta = 0.143$; $p = 0.005$), stress level ($\beta = - 0.128$; $p = 0.006$), and Independent Self ($\beta = 0.122$; $p = 0.017$). We have observed that life satisfaction, especially combined with absence of serious health problems, lead to independent problem solving, sometimes without medical intervention, both contributing to active coping strategies. But a high stress level in the given context, reduces the probable choice of this coping type, actualizing *collectivistic coping*. In general, we could admit that life satisfaction influences coping in the Illness context, expanding the variety of coping strategies. To determine the effect of the situational context on coping types we used ANOVA. We considered the Career and Illness scenarios as an intra-group factor for *collective*, *avoidance* and *engagement* coping. We obtained statistically significant results, confirming the impact of the situation on a coping type and its intensity (Pillai trace = 0.15, $F = 24,29$, $p = 0.000$). Thereafter using a one-dimensional criterion, we have found out that the situational context factor (*cf*. Figure 1) has a fairly significant impact only on the *collective coping* ($F = 54.09$, $p = 0.00$). It has been more intense in the Illness scenario ($m_1 = 29.61$, $SD_1 = 0.37$), than in the Career scenario ($m_2 = 27.52$, $SD_2 = 0.34$). The ANOVA results suggest that the scenario or specified context, influence or predict choosing not all coping types.
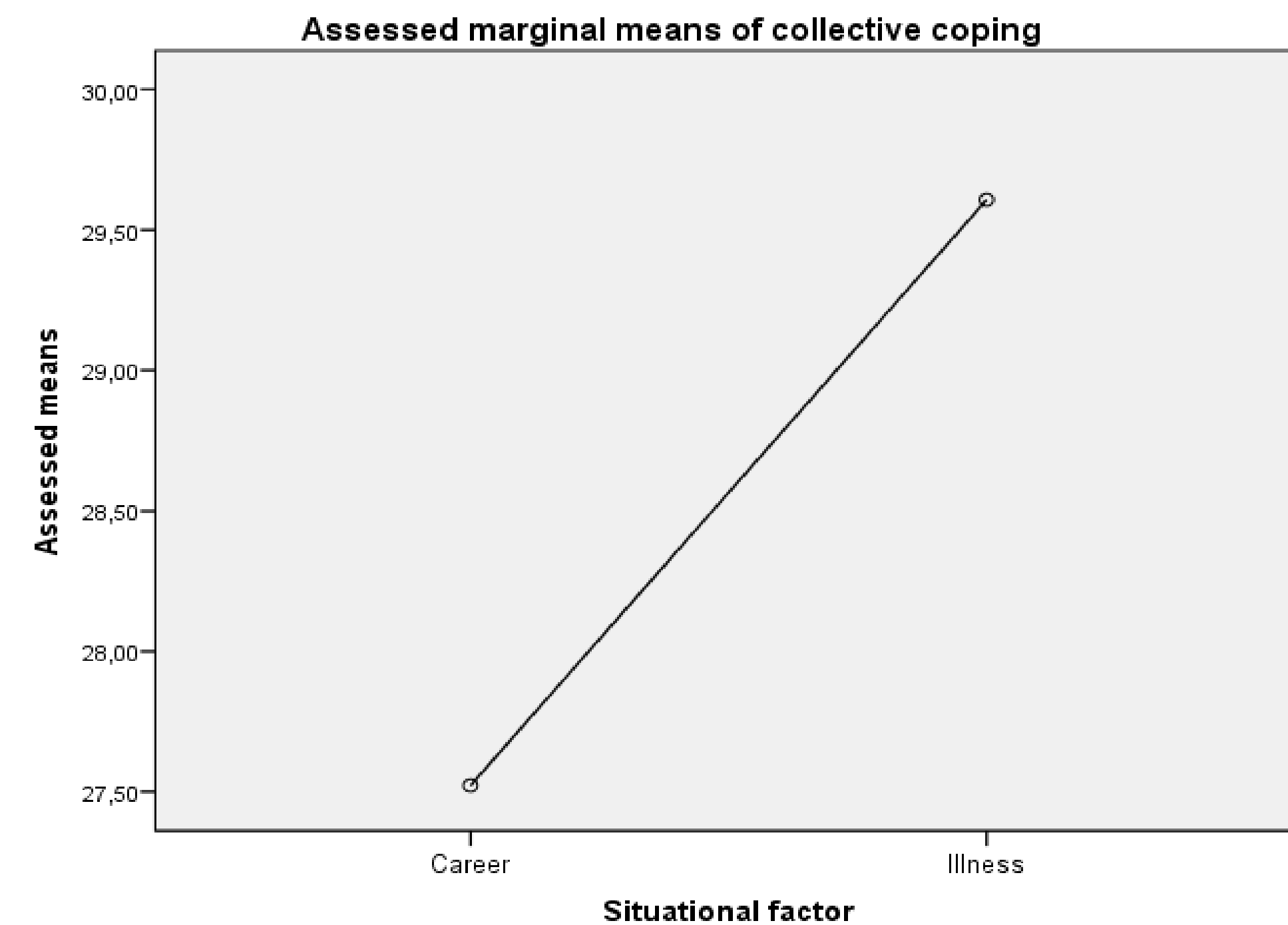

Figure 1
The situational context predicting collective coping

Discussion

In the situation of lack of adequate measures to study the stress-coping socio-cultural context, we have made a contribution due to the adaptation and development of a new instrument – the cross-cultural coping scale by Ben Kuo and a group of Canadian authors. The measure is useful for investigating the influence of the socio-cultural context on the respondents' coping choice for a wide range of users.

A similar adaptation had already been successfully carried out by Anna Kwiatkowska in Poland (Kwiatkowska, 2013). The scale has been successfully approved in several countries, including Canada, the USA, Norway, Germany, Poland, and Belarus.

Conclusion

The main results obtained in the study are the following: the situational context has the greatest impact on the Russian respondents' choice of *collective coping*. Further questions have emerged during the study requiring more research and comprehensive interpretations: whether or not the other coping types (*avoidance* and *engagement*) are as sensitive to the context as the *collective* one or whether the socio-cultural context is not the major leading factor of the coping type choice in the Russian sample.

Author note

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