

# The Role of Locus of Control and Perceived Stress in Dealing with Unemployment during Economic Crisis

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## Abstract

This study aimed to examine the psychological profile of unemployed people during economic crisis. Specifically, we studied the relationships between locus of control (LOC), perceived stress, maintenance of health behaviors such as smoking, drinking and exercising and the optimism about finding a new job. Participants were 201 Greek unemployed, ranging from 20 to 64 years old. Measures included, among others, a short form of LOC Scale, the 14-item Perceived Stress Scale, as well as health behavior and perceived optimism indicators. Results indicated that the discharged felt unable, even powerless to efficiently cope with the unemployment status. Unemployed with an external LOC orientation tend to experience more stress. Among all of the examined health behaviors, only physical activity seems to be related to LOC orientation as well as perceived stress. Finally, the external LOC orientation of the unemployed as well as their higher levels of perceived stress were related to a tendency to feel less optimistic about finding a new job. Future interventions, either aiming to control stress and promote physical activity or aiming to eliminate external LOC orientation should be applied as soon as possible after job loss.

**Keywords:** Locus of Control, Perceived Stress, Unemployment

## 1. Introduction

Eurostat estimates that at the end of 2012 the unemployment rate for the euro area (EA-17) hit 11.8 %, the highest rate since 1995 (Eurostat, 2013). In the last decades, the health related consequences of unemployment have been well documented. For instance, unemployment has been related to negative health behaviors such as: smoking and drinking (Janlert, 1997), to the negatively self rated health (Kaleta, Makowiec-Dabrowska & Jegier, 2008), to the declination of our immune cell functional capacity (Cohen, Kemeny, Zegans, Johnson, Kearney, & Stites, 2007), to the elevated risk of mortality (Mustard, Bielecky, Etches, Wilkins, Tjepkema, Amick, Smith & Aronson, 2013) and to suicide (Classen & Dunn, 2012). As far as psychological health is concerned, unemployment has been strictly related to poor psychological health (Gathergood, 2012), to lower levels of psychological well-being (Latif, 2010), to life dissatisfaction (Carroll, 2007), to the level of general happiness and to a number of mental distress indicators such as anxiety, depression, loss of confidence and reduction of self-esteem (Theodossiou, 1998).

The unemployment levels in Greece, during the economic crisis, have gradually risen over-trebled from 7.7% in 2008 to 24.2% in 2012 (Hellenic Statistical Authority, 2013). The consequences of this crisis on several health indicators have already been outlined (Ifanti, Argyriou, Kalofonou, & Kalofonos, 2013; Vadoros, Hessel, Leone, & Avendano, 2013; Zavras, Tsiantou, Pavi, Mylona, & Kyriopoulos, 2012).

Regarding to the ways people react and cope with unemployment and involuntary job loss, several factors have been noted. Age (Winefield & Tiggemann, 1990), gender and family status (Kulik, 2000) are demographic factors that have been pointed to be related to the way people respond to unemployment. Furthermore, the duration of unemployment (Classen & Dunn, 2012) as well as the levels of financial strains that the unemployed face (Price, Choi, & Vinokur, 2013) are mediators to their reactions. Finally, as far as personality factors are concerned, reacting with denial to the recent job loss, (Blau, Petrucci, & McClendon, 2013), the inability to maintain personal control during unemployment (Price, Choi, & Vinokur, 2013), as well as having low expectations of finding replacement jobs (Brewington, Nassar-McMillan, Flowers, & Furr, 2004) are associated with limited adjustment to unemployment.

Locus of control (LOC), which refers to the extent to which individuals believe that they are capable to affect their lives, may play an important role in handling unemployment. LOC is a concept which is based on Rotter's

general theoretical framework of social learning theory (1954, 1960). According to Rotter (1966), people's generalized expectancies have an internal or an external orientation. They tend, either to believe that reinforcements are contingent on their own behavior and their own relatively permanent characteristics, or that reinforcements can be achieved mostly through factors outside of their control, such as luck, chance, fate and powerful others. People's LOC orientation has been studied as a mediating factor in a wide range of situations that demand practicing our skills in order to cope or adjust. For instance, it has been found that external LOC is associated with the maintenance of unhealthy behaviors such as smoking, less physical activity and less attention to healthy nutrition (Helmer, Krämer, & Mikolajczyk, 2012). External LOC has been also associated with the risk for behavioral problems during adolescence (Liu, Kurita, Uchiyama, Okawa, Liu, & Ma, 2000). Furthermore, it has been found that external LOC is related to higher levels of stress (Roddenberry & Renk, 2010), increased feelings of helplessness when dealing with pain (Härkäpää, Järvikoski & Vakkari, 1996), increased difficulty in adjusting after critical life events (Kilmann, Laval, & Wanlass, 1978) as well as to decreased levels of subjective well-being (Karatas & Tagay, 2012). On the other hand, internal LOC has been related to a number of positive ways of coping; for instance, it has been related to learning achievement in distance training (Severino, Aiello, Cascio, Ficarra, & Messina, 2011) whereas internal health LOC has been related to optimism (Guarnera & Williams, 1987).

As far as employment is concerned, internal LOC seems to be a vital criterion of job success. It has been found to be related to job satisfaction, (Basak & Ghosh, 2011), to job motivation (Ng, Sorensen, & Eby, 2006), and to better coping skills to meet work and family expectations (Hsu, 2011) as well. Regarding unemployment, it has been related to a higher external LOC orientation (O'Brien & Kabanoff, 1979) while unemployed people with internal LOC orientation have been found to have lower levels of anxiety and depression and higher levels of self esteem and life satisfaction (Cvetanovski & Jex, 1994).

Except LOC, another personal factor that could be related to unemployment adjustment is individual's perceived stress. The consequences of stress on physical and psychosocial well-being have been presented/documentated extensively (Kudielka & Kirschbaum, 2007; Dohrenwend & Dohrenwend, 1974). Regarding its impact to the retention of a healthy way of life, it has been found to be related to a higher fat diet, less frequent exercise and cigarette smoking (Ng & Jeffery, 2013). However, levels of perceived stress have been related to a number of factors such as personality in general (Hasel, Besharat, Abdolhoseini, Nasab, & Niknam, 2013), optimism (Khoo & Bishop, 1997) and socio-economic correlates (Hamad, Fernald, Karlan, & Zinman, 2008).

As far as the role of occupational status in perceived stress is concerned, it has been found to moderate the association between current perceived stress and high blood pressure (Wiernik, Pannier, Czernichow, Nabi, Hanon, Simon, Simon, Thomas, Bean, Consoli, Danchin, & Lemogne, 2013). Related to the above, it has been found that experiencing financial problems is known to predict psychological distress (Gorgievski, Bakker, Schaufeli, van der Veen, & Giesen, 2010). Furthermore, job loss could even promote reactions paralleled to the bereavement process, depending on the circumstances of loss, the degree of the involvement in it, the level of personal vulnerability and the degree of social support (Archer & Rhodes, 1987).

The purpose of the present study is to delineate measures that relate to the profile of a group of unemployed and to investigate the role of specific personal parameters in the adjustment after job loss. More specifically, we aim to study the relationships between the LOC, the perceived stress, the maintenance of health behaviors and the optimism about finding a new job. Based on existing literature, it is hypothesized that, in a group of discharged, external orientation will be significantly correlated with perceived stress. Furthermore, external orientation and perceived stress will be negatively related to a healthy behavior maintenance and optimism about finding a new job. The above relationships have been widely studied before, but not within an unemployment framework. Furthermore, considering the increasing need for psychosocial adjustment of individuals who lost their job, we consider this as an essential analysis both in terms of policy and practice.

## 2. Methods

### 2.1 Sample

Participants were 201 unemployed, ranging from 20 to 64 years old (Mean = 33, S.D. = 9.32), while 78.4% of the participants aged between 23 and 41 years. Most of the participants were women (70.6%) and more than half of them (52.2%) had completed university education. The vast majority (58.5%) were unmarried with no children, while 19% had two children. More than half of the respondents (55.2%) reported an average, 38.8% a low and only 6% a high socioeconomic status.

## 2.2 Measures

### 2.2.1 LOC

LOC was assessed with the 13-item LOC Scale (LOC-13; Brouskeli & Loumakou, 2012), which was derived from the full 29-item Rotter Internal-External LOC questionnaire (Rotter, 1966). The scale has been translated into Greek (Brouskeli & Loumakou, 2012) and shown to be a reliable instrument (Cronbach's alpha = .82). LOC-13 consists of 13 pairs of antithetic statements and respondents were asked to select the statement of each pair which best described their current state. In 9 out of the 13 pairs, the first sentence indicates an internal LOC orientation, whereas in the rest of the pairs the first sentence indicates an external LOC orientation. Internal consistency for the present study, estimated by Kuder-Richardson, was .80. The scale was scored in the direction of external control by first reverse-scoring nine items and then summing responses to all items. Therefore, higher scores indicated an external LOC perception.

### 2.2.2 Perceived Stress

The 14-item Perceived Stress Scale (PSS-14) measures the degree to which several situations in one's life are appraised as stressful (Cohen, Kamarck, & Mermelstein, 1983). It is a 5-item Likert-type scale (0 = never to 4 = very often) which consists of questions such as "In the last month, how often have you been upset because of something that happened unexpectedly?" and, "In the last month, how often have you felt that things were going your way?" The questions are divided to seven positive and seven negative items. Seven out of the fourteen items of PSS-14 are considered negative and the remaining seven as positive. The psychometric properties of a Greek version of PSS-14 have been established in a sample of the general Greek population (Andreou, Alexopoulos, Lionis, Varvogli, Gnardellis, Chrousos, & Darviri, 2011). For the data in this present study, Exploratory Factor Analysis (principal components analysis with oblimin rotation) confirmed the two-factor solution. In addition, each of the subscales showed adequate scale reliability: negative subscale alpha = .79; positive subscale alpha = .76. The total score has been derived by summing up each score after revising the positive items and, consequently, higher total scores indicate greater stress.

### 2.2.3 Other adjustment indicators: health behaviors and perceived optimism

The questionnaire included measures of participants' health behaviors of smoking, drinking and exercising, before and after job loss. Furthermore, it included a 3-point scale evaluating their optimism about finding a job compared to the optimism at the very first period of unemployment.

### 2.2.4 Socio-demographic data - respondents' profile

Five questions were addressed to obtain respondents' socio-demographic data. These referred to their age, gender, family status, education level and family socio-economic status. Finally, three more questions were addressed to evaluate, on a 3-point scale, respondents' characteristics as discharged. These questions referred to the perceived level of importance of getting a job, the number of previous efforts for finding a job, as well as the self-estimated future efforts for finding a job.

## 2.3 Procedure and Data Analysis

The survey took place in Thessaloniki, the second biggest town of Greece, during the first two months of 2013. Participants consisted of unemployed who had lost their jobs and came to the local offices of Manpower Employment Organization, in order to obtain their unemployment card and the relevant benefits. Participation was voluntary and potential respondents were verbally informed about the general aims of the study, the time needed to complete the anonymous questionnaire, as well as the ways they could have access to the study results.

Descriptive statistical indices were used for the presentation of the data (frequencies, averages and standard deviations). For the comparisons of means, One-way ANOVA followed by Scheffé's test was applied where necessary. For the comparison of the frequency distributions and the correlation test between categorical variables, the independence test  $\chi^2$  was used. The observed significance level (p-value) of the  $\chi^2$  test was calculated using the Monte Carlo simulation method. Correlations between the resulting scale scores were investigated by Pearson correlation coefficients. The statistical analyses were implemented with the statistical package SPSS v17. The significance level of the statistical tests was predetermined at 5%.

## 3. Results

The unemployment profile of the participants shows that about one third (30.3%) had been unemployed for at least 2 years, 23.4% between 1 and 2 years, 15.9% between 6 and 12 months, 13.4% between 3 and 6 months

and 16.9% for less than 3 months. For the great majority (71.6%) getting a job is of great importance. A significant percentage (46.8%) stated that they had made many efforts for finding a job, whereas 38.8% had done only a few and 14.4% had made strong efforts. More than half of the participants reported that they will try less in the future (52.2%), 40.3% will keep trying at the same level (40.3%), whereas 7.5% will try harder for finding a new job. Finally, most respondents (53.7%) reported being less optimistic than in the past, regarding the successfulness of their efforts to find a new job, and only 13.9% of them seemed to be more optimistic.

A positive and significant correlation was found between LOC and perceived stress ( $r = 0.324$ ,  $p < 0.01$ ), indicating that participants with more external orientation tended to experience more stress. LOC was found to be negatively related to optimism regarding the successfulness of participants' efforts to find a new job (Table 1). The least optimistic individuals had a significantly more external orientation ( $M = 7.41$ ,  $SD = 2.22$ ), compared to the most optimistic ones ( $M = 6.47$ ,  $SD = 2.68$ ). However, the statistical significance of this relationship is marginal ( $F(2, 201) = 3.05$ ,  $p = 0.05$ ,  $\eta^2 = 0.033$ ). A statistically significant relationship was also observed between LOC and physical activity ( $F(3, 199) = 2.91$ ,  $p = 0.036$ ,  $\eta^2 = 0.047$ ). Respondents who used to exercise regularly before job loss but stopped after discharge, had a significantly higher external control orientation ( $M = 8.17$ ,  $SD = 1.79$ ) than those who started exercising just after job loss ( $M = 6.3$ ,  $SD = 2.51$ ) (Table 1).

Table 1. Relationship between LOC, Optimism and Physical Activity

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df</i>	<i>p</i>
<i>Optimism</i>				3.05	2, 201	0.050
Less	108	7.41	0.24			
The same	65	6.73	0.46			
More	28	6.47	0.31			
<i>Physical Activity</i>				2.91	3, 199	0.036
No exercise	87	7.23	2.40			
Started but not used to	23	6.30	2.51			
Used to but stopped	20	8.17	1.79			
The same	69	6.59	2.39			

*M*: mean; *SD*: standard deviation; *F*: value of the *F*-statistic; *df*: degrees of freedom;

Perceived stress was found to be significantly negatively related with participants' optimism regarding the successfulness of their efforts to find a new job ( $F(2, 201) = 9.38$ ,  $\eta^2 = 0.087$ ), with the most optimistic participants appearing less stressed ( $M = 24.89$ ,  $SD = 7.24$ ) than the least optimistic ones ( $M = 29.45$ ,  $SD = 6.21$ ). A statistically significant relationship was also observed between perceived stress and physical activity ( $F(3, 197) = 5.56$ ,  $p = 0.01$ ,  $\eta^2 = 0.08$ ). The highest stress levels were observed in the group of unemployed who used to exercise regularly before job loss but stopped after discharge ( $M = 30.7$ ,  $SD = 6.15$ ). The lowest stress levels were observed in the group of those who were exercising, both before and after discharge ( $M = 25.35$ ,  $SD = 6.72$ ). This last group presented significantly lower stress levels even from the group of participants that had never been exercising regularly before ( $M = 28.9$ ,  $SD = 6.1$ ) (Table 2).

Table 2. Relationship between Perceived Stress, Optimism and Physical Activity

	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df</i>	<i>P</i>
<i>Optimism</i>				9.38	2, 201	< 0.001
Less	108	29.45	6.21			
The same	65	25.95	6.03			
More	28	24.89	7.24			
<i>Physical Activity</i>				5.56	3, 197	0.010
No exercise	87	28.94	6.08			
Started but not used to	23	27.69	6.55			
Used to but stopped	20	30.68	6.15			
The same	69	25.35	6.72			

*M*: mean; *SD*: standard deviation; *F*: value of the *F*-statistic; *df*: degrees of freedom;

## Discussion

Results indicated that, although only a few of the unemployed in the sample had made strong efforts to find a new job, more than half of them felt significantly less optimistic about finding a new job and reported their intention to try less in the future. Considering that the vast majority of the sample consists of young people, who are usually confident in their capability to find a job, it can be concluded that this group feel unable to efficiently cope with the situation. As Goldsmith, Veum and Darity (1996) mentioned, after months of unsuccessful job search, the unemployed build a sense of powerlessness and finally, a sense of helplessness. However, the sense of helplessness minimizes the possibility to react and escape from the undesirable situations, even when the individual has the opportunity (Seligman, 1975). Findings suggest that interventions that aim to raise unemployed self-confidence about regaining their job should take place as soon as possible after discharge.

Results also indicated that unemployed, who are classified as people with an external orientation, tend to experience more stress. This finding is in line with previous research evidence which relates LOC and perceived stress either in a group of students (Roddenberry & Renk, 2010) or in a group of active entrepreneurs (Anderson, 1977). It seems that those who lost their job and are able to think themselves as controllers may manage their stress better than those who feel that the situation is controlled by other forces, possibly out of their reach or even their knowledge. Although LOC is a type of personality trait, therefore stable, it is not invariant; on the contrast, it could be altered, depending on new developments in a human's life (Goldsmith et.al, 1996). Stress management interventions that are applied to the unemployed should target in eliminating external LOC orientation, even temporarily, in order to reduce stress levels and strengthen their faith to their own powers.

The results also revealed that LOC was not related to any other health behavior but physical activity. The unemployed who stopped exercising after discharge had a more external LOC orientation, while the unemployed who started exercising after job loss had a somewhat more internal LOC orientation. Furthermore, it is interesting to note that, among other behaviors, only physical activity was found to be related to perceived stress. Specifically, the results indicated that individuals who had stopped exercising appeared more stressed, than those who kept exercising. Once again, the external orientation is related to a maladjustment indicator which denotes a kind of resignation, while the internal one is related to a healthy way of coping. Besides, continuation of exercising may keep stress in low levels, since exercising is a well-known stress management technique (Aldwin, 2007; Zakowski, Hall, & Baum, 1992). However, we did not find the expected relationships among LOC or perceived stress and the health behaviors of drinking and smoking. A number of studies show that job loss, although stressful, may not be enough to effect health indicators such as body mass index, alcohol consumption (Deb, Gallo, Ayyagari, Fletcher, & Sindelar, 2011) and levels of smoking (De Vogli & Santinello, 2005; Schunck & Rogge, 2012). It is possible that, other factors which are present in an unemployment status, such as economic stresses or low levels of self efficacy may mediate and alter the expected outcomes.

In line with our hypotheses as well as previous research, we found that the external orientation of the unemployed as well as their higher levels of perceived stress are related to a tendency to feel less optimistic about finding a new job, and therefore to hinder further their adjustment. However, due to the methodological design limitation of addressing only one item for the evaluation, we are only able to refer to a tendency and we

are not able to submit further conclusions.

Several limitations should be considered in any attempt to generalize the findings of this study. The use of self-report measures has the risk of socially desired answers and future research could benefit from the use of multiple sources. Furthermore, the cross-sectional nature of the study could not allow drawing any inferences about causality. Moreover, future studies should examine whether and how the examined health variables mediate the relationship between LOC and perceived stress for the unemployed. Finally, future preventative and early interventions should attend to the psychological needs of the unemployed in order to keep the human resources able to cope, plan effectively and finally succeed.

## Conclusion

This exploratory study suggests that the unemployed, who tend to believe that they are capable to affect their own lives, perceive significantly less stress. Furthermore, those who continue being engaged in physical activity during unemployment, tend to believe that they are still capable to affect their lives and perceive less stress. This group also appears more optimistic about finding a new job. All in all, internal orientation and low stress levels, mainly due to their interrelationships as well as their relationship with positive health behaviors and optimism, may be perceived as important indicators for normal adjustment after job loss.

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