Emotional Reactions in the Unemployed during Economic Recession in Greece: Construction of a Self- Report Emotional Scale for Use in Unemployment (Nottingham Emotional Scale: NEScale)

by

Ioanna Karaoulani

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ABSTRACT

The function of emotions, especially the basic emotions, signpost individual's psychological resilience that refers to effective coping and adaptation to stressful situations and alert us for challenges that we must adequately address to sustain well-being. Precarious employment of white collar workers and long term unemployment can result in mental health problems while the distinctiveness of rural-urban unemployment highlights specific problems. The current literature does not offer measures that are designed to assess discrete emotions in relation to unemployment. Under that perspective, a new scale was devised. “Nottingham Emotional Scale (NEScale)” is a Likert scale self-report measure including 24 items that reflect three subscales, “Positive”, “Negative” and “Trauma and Stress-related”. Item generation was based on qualitative accounts, theory, and expert review. The scale has good internal consistency (N=2201) and two, four and six-week test-retest reliability indicated that the scores were stable over time. The validity of the scale is related to Brief Cope and Depression, Anxiety, Stress Scales (DASS-42), which assess related constructs. In terms of discriminant validity, the scale proved to be different from Satisfaction with Life Scale (SWLS) and Subjective Happiness Scale (SHS). NEScale scores were strong predictors of emotional health in employment and unemployment and pinpointed a difference in emotion between the employed and unemployed participants, with the employed scoring significantly higher on the “Positive” and the unemployed scoring higher on the “Negative” and “Trauma and Stress-related”. A strength of this project is that addresses a gap identified in the research literature; it presents a new emotional scale that does not assess only broad dimensions of affect (positivity and negativity), but it is sensitive to

emotions that can be used as a parameter for the diagnosis, early identification and treatment of post-traumatic stress disorder (PTSD).

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Presentations and Posters

The Four Basic Steps of the Construction of the Self-Rating Emotional Scale for Use in Unemployment	Midlands Academy of Medical Sciences Research Festival	Poster	23 March 2018 Loughborough University, UK
The Four Basic Steps of the Construction of the Self-Rating Emotional Scale for Use in Unemployment	Institute of Mental Health – IMH Annual Research Day	Presentation	22 May 2018, University of Nottingham, UK
The Four Basic Steps of the Construction of the Self-Rating Emotional Scale for Use in Unemployment	6th Mediterranean Interdisciplinary Forum on Social Sciences and Humanities, MIFS 2018	Presentation	24-25 May 2018, Barcelona Spain
Self and Unemployment: Personal and Social Self	Link '18 – A Student-led Interdisciplinary Research Conference	Presentation	31 May 2018, Nottingham, UK
Nottingham Emotional Scale (NEScale): Reliability Assessment with 2201 participants.	Royal College of Psychiatrists - RCPsych International Congress 2018	Poster	24-27 June 2018, RCPsych, Birmingham, UK
Nottingham Emotional Scale (NEScale): Reliability Assessment with 2201 participants.	EMDoc conference: Impact and exchange – making connections beyond the acade...	Poster	19 September 2018, Bishop Grosseteste University, Lincoln, UK

Acronyms

NEScale – Nottingham Emotional Scale
SWLS – Satisfaction with Life Scale
SHS – Subjective Happiness Scale
DASS – Depression Anxiety Stress Scale
ELSTAT – The Hellenic Statistical Authority
Eurostat – The Statistical Office of the European Union
SPSS – Statistical Package of Social Science
PTSD – Post-traumatic stress disorder
ICD-10 – International Classification of Diseases, 10^{th} edn
CNS – Central nervous system
NES – Neuro-endocrine system
ANS – Autonomic nervous system
SNS – Somatic nervous system
IE - Imaginal exposure
CT - Cognitive therapy
CBT – Cognitive behaviour therapy
SEL – Social emotional learning
EEG – Electroencephalography
fMRI – Functional magnetic resonance imaging
PET – positron emission tomography
DET – Differential emotions theory

Chapter 1. Research Background and Objectives

1.1 Introduction

An essential interest of this research is to explore what the important emotions are, to reveal emotional changes, if there are any, in relation to events and in stress-related phenomena such as daily hassles, financial hardship and unemployment in Greece. The sequence of emotions might probably reflect the changing meaning of what is happening to our welfare as the encounter unfolds. Therefore, unless we focus on change we cannot learn how people express their emotions on daily stressful events and conditions that are happening now in Greece. For understanding risks and potential protective factors it is essential to develop a specific framework to understand better the phenomena under investigation. As a specific conceptual framework, white collar unemployment in rural and urban areas which remains high in Europe and Greece and it is even climbing was chosen as a detailed stressor to understand the role of emotions and emotional changes, if there are any.

Under that scope, quantitative approach with the use of web- based study (test retest of the scale) is the most appropriate one to record the change, if there is any change, have no ambiguity about the concepts being recorded and provide a basis for the evaluation of health care provision for the phenomenon being explored.

This research aims to develop an emotional instrument to measure the emotional experience and change, if any, of Greek citizens for the present socioeconomic and political changes in their country to aid in designing and implementing an online based intervention for the unemployed with families.

A life event is characterized as stressful if it causes changes in, and demands readjustment of, an average person's normal routine. This classification of stress has relied upon the empirical demonstration (Holmes and Rahe 1967, Holmes and Masuda 1974) that there is a general agreement about the degree to which specific life occurrences involve change and require readjustment. Holmes and Rahe (1967) identified 43 stressful events such as major changes in finance state, in working hours or conditions and in social activities that if experienced over a 12month period indicate that a person has an 80% chance of developing a stress related illness. Emotion will play an important role since its primary function is to activate and organize the organisms to deal quickly with important interpersonal encounters (Ekman 1992).

1.2 Personal and Professional interest

For a number of years, I have practiced as a professional counsellor in Greece. Empathy, being open to my clients in a non-judgmental way and having trust on clients' personal rhythms of how they understand and see the world has been the core elements of my work. As a counsellor in children's centers I have noticed that the central point in parents' discussions was unemployment and its problems. Many parents expressed deep concern and fear that these problems could affect their own families, and many were worried and apprehensive that their frustrations and the challenges posed by the ongoing economic crisis in Greece will continue long into the future. Most importantly, they were worried that their children would inherit these problems. These experiences and way they impact on individuals, community and family has motivated me to conduct this research.

Unemployment is a Greek economic reality and the frustration, and dissatisfaction of the Greek people is a significant element of their everyday life. Evidence for this is the ongoing series of demonstrations and general strikes which began on 5 May 2010 and were sparked by policies to cut public spending and raise taxes, aimed at solving the 2010-2011 Greek debt crisis (Hellenic Ministry of Finance, Ministry of Citizen Protection-Hellenic Police). Protest activity has escalated since then with more than 400,000 people protesting against unemployment, inflation, harsh austerity and measures with welfare cuts. The share of persons at-risk-of-poverty or social exclusion aged 18-64 years amounts to 36.5% as regards Greek nationals and to 62.9% as regards foreign nationals residing in Greece (more than 3 million people) according to the survey on income and living conditions from ELSTAT (2017). Additionally, a new category of the 'working poor' has been emerged since 2010 and 7 out of 10 workers are poor (EUROSTAT, 2017), with child poverty reaching 26.6%, poverty in people aged over 65 years reaching 13.7%, single parents with dependent children 32.2% (ELSTAT, 2017). The at-risk-of-poverty rate before all social transfers (not including social benefits and pensions in the total disposable household income) is 52.9%.

Income-poverty, though important, is only one aspect of deprivation but definitely it illustrates the ongoing and difficult conditions of daily life for Greek citizens in 2017. In 2008 Greek debt was close at 263.6 billion and recently the Minister of Finance has reported that the draft budget in 2017 has jumped to 318.6 billion (Hellenic Ministry of Finance). This means that the difficult conditions of Greeks daily living of employed and unemployed will continue to deteriorate, and inescapable changes will have to be faced.

The psychological impact of stressful events on unemployed and employed workers may illustrate differences that need to be addressed concerning their psychological and emotional stresses that are brought about as a result. Emotions will play an important role within these processes, as its primary function is to activate and organize organisms to deal quickly with important interpersonal encounters (Ekman 1992). Levenson (Levenson, Carstensen et al. 1994, Levenson 1999) argued that the functions of emotions represent efficient forms of adaptation to changing environmental demands and work as a repository for innate influences, possessing certain invariant features.

Despite important findings from the recent literature that show that there are large differences in the effect of unemployment among people, white-collars workers due to high competition are more vulnerable to of unemployment, and differences on psychological health between employed and unemployed there are no appropriate existing scales to evidently quantify any differences and indicate how much of the effect is transitory and how much is permanent. Moreover, since there are no appropriate existing scales even the meta-analyses of unemployment and impairment on mental health rely on best guesses (Karsten and Klaus 2009) rather than reliable statements. The differences hold the key to design effective interventions and policies thus finding a difference on emotions between employed and unemployed can provide clues about why these emotions exist in the first place.

1.3 This Research Epistemological and Ontological Standpoint

The evolution and influence of positivist, postpositivist, interpretive, constructionist and critical theory research paradigms illustrate that research needs seem to rely on time, change and criticisms in order to select which paradigm a research process framework will follow (Weaver and Olson 2006). Support for this is that Glaser and Strauss's (1967) original version is presented as suitable within the postpositivist paradigm, Charmaz's (2006) version suitable with the constructionist paradigm, and Corbin and Strauss's (2008) version suitable with the interpretivist paradigm. Instead, this research advocates critical multiplism which retains many of the methodological achievements of the past post-positivists as the search for "warranted assertability" while it gives way to both qualitative and quantitative methods in a manner that ensures that research questions are examined thoroughly from a wide variety of perspectives (Letourneau and Allen 1999).

This research utilizes both an inductive and deductive approach (Neuman 2003) for generating items in the construction of the emotional scale to understand the emotional responses of people in financial hardship and unemployed people. The inductive involves understanding of their lived everyday experience and agree with the intention of the Grounded theory approach (vCharmaz 2006). Grounded theory is a methodology for developing theory that is grounded in data systematically gathered and analyzed (inductive) and involves the progressive identification of categories of meaning from data, offering analytic categories that share central characteristics with one another (Strauss and Corbin 1998), or if existing grounded theories (deductive) seem applicable to the area of inquiry (Glaser and Strauss 1967).

There is no a widespread theoretical agreement on what characterizes the financial hardship everyday routine and the unemployment experience. On the contrary, it is rather an extremely ambiguous concept (Winefield 2002). Hence, the primary goal was to define the experience of thoughts of people facing financial hardship and unemployment and to develop a way of understanding that experience through inductive qualitative method which was also involved in initial item generation. Additionally, the deductive approach item generation based on the basic emotion theory gave a theoretical definition of a-construct which is then used as a guide for the creation of items. In that way, this research ensured content adequacy in the final scale and a good frame of understanding the relationships that exist between basic emotions and resulting effects. Based on this theoretical framework this research views emotions almost universally found across cultural groups and languages with some exceptions, hereditary, evolved and with adaptive value (Hess and Thibault 2009).

Putting the essential analytical constructs (or building blocks) of any theory back into grounded theory that designates the grouping together of instances (events, processes) agrees with Aristotle's intentional process of consciousness (noesis and noema) that this research adapts as its ontology (Barnes 1955). Aristotle approached the objects and relations of everyday reality as a sequence of units (noesis) that lead to a whole (noema). Units and wholes are two distinct orders of being and simple units (noesis) can be composed to create complex units which are then more than (or different from) the totals of their simple units (Franck 2001).

1.4 The Research Aims and Objectives

The aim of this research is to construct a valid measure of emotion that can be used to document individuals' emotional responses during financial hardship and unemployment.

There are two research questions and ten hypotheses that this research aims to address:

The primary research question is: "What are the dominant feelings of employed and unemployed in urban (Athens, Capital of Greece) and rural (Outside Athens) areas in Greece?"

The secondary research question is: "Is there a difference in emotion between unemployed with children and unemployed without children?"

Analytically:

Research questions (RQ) and research hypotheses (H)

What are the dominant feelings of:	*RQ1*	employed and unemployed in Athens and outside Athens?
	RQ2	unemployed with children and unemployed without children?

Research Hypotheses:

Occupational Status	
Justification	There is increasing evidence of an association between poor mental health and the experience of unemployment, financial hardship and deprivation (Kuruvilla and Jacob 2007, Karsten and Moser 2009, Kroll and Lampert 2011).
H1	Employed have better mental health and emotional well-being than those who are unemployed.
Urban and rural communities	
Justification	It is well documented that there is a rise in rural unemployment and the unemployed suffer more emotional impairment in rural settings rather than urban settings as a result of unbalanced growth and development and the poor socioeconomic status (SES) in rural areas (Lindsay, McCracken et al. 2003, Mukhopadhyay and Rajaraman 2007, Ayinde 2008, Zmidja 2013)

H2	Employed residing in urban (Athens city) have better mental health and emotional well-being than those in rural (outside of Athens city) settings.
H3	Unemployed residing in urban (Athens city) have better mental health and emotional well-being than those in rural (outside of Athens city) settings.
H5	There will be no difference on mental health and emotional well-being between unemployed women in urban (Athens city) and among unemployed women in rural (outside of Athens city) settings.
H6	There will be no difference on mental health and emotional well-being between employed women in urban (Athens city) and among employed women in rural (outside of Athens city) settings.
H7	There will be no difference on mental health and emotional wellbeing among unemployed men residing in urban (Athens city) than those in rural (outside of Athens city) settings.
H8	There will be no difference on mental health and emotional wellbeing among employed men residing in urban (Athens city) than those in rural (outside of Athens city) settings.
Gender	
Justification	Research has shown gender differences in the effect of unemployment on psychological distress and found that men were substantially more mentally distressed by unemployment than women (Strandh, Hammarstro¨m et al. 2013)
H4	Unemployment and financial hardship have a stronger negative connection mental health and emotional well-being among men than among women in Greece.
Family Status and Urban and Rural Communities	
Justification	Research has shown that emotional distress arising from unemployment affects both the unemployed and other family members. Studies suggest that unemployment brings about marital difficulties (Komarovsky, 1940; Elder's 1974; Price et al 1998), and it has the potential to adversely impact upon children in families, even more than adults (Gray and Baxter, 2011). Furthermore, studies have revealed that in the case of singles, rates of poor mental health were higher among those who were unemployed (Artazcoz, Benach et al. 2004, Mihai, Ricean et al. 2014)
H9	There will be no difference on mental health and emotional wellbeing among married unemployed with children and without children
H10	There will be no difference on mental health and emotional wellbeing among single, married with children and married without children in Athens and outside Athens?

The objectives of this research are:

Objective 1: To explore the psychological impact of financial hardship and unemployment on individuals using a small-scale qualitative research.

Objective 2: To test Nottingham Emotional Scale's (NEScale) reliability (its consistency) on the population of the employed and unemployed.

Objective 3: To explore differences between employed and unemployed emotional responses using the Nottingham (NEScale) as assessment scale.

Objective 4: To check the validity of Nottingham Emotional Scale (NEScale) by comparing NEScale with Brief Cope, Depression, Anxiety and Stress Scales (DASS-42), Satisfaction with Life Scale (SWLS) and Subjective Happiness Scale (SHS) on the population of unemployed.

Objective 5: To explore unemployed emotional responses during and in relation to their unemployment using NEScale as assessment scale.

1.5 Structure of the Thesis

The thesis is structured into nine chapters.

Chapter 1 expresses its professional interest and briefly describes the epistemological and ontological stance of this research project. The aims and the objectives illustrate the mixed method design of this research.

Chapter 2 describes the most important psychological approaches to emotion research, the basic emotion approach in emotion research that this research project adapts

and the related scientific research on unemployment and its impact on emotion and individuals' everyday life.

Chapter 3 entails the appropriateness of the research design and describes methodology and the research tools (method) that this research chose.

Chapter 4 presents the item generation and development of the Nottingham Emotional Scale (NEScale).

Chapter 5 demonstrates Study 1- Pilot Study of NEScale and presents the quantitative results of Study 1. It presents data analysis (open-ended questions participants' results) from the qualitative phase of NEScale item development phase and illustrates the participants' feedback on Study 1 and this research agenda on Study 1. The process presented a scale consisting of 58-items and resulted with 31-items scale after expert group review and qualitative accounts.

Chapter 6 demonstrates Study 2 which tests and measures the reliability of Nottingham Emotional Scale (NEScale) on employed (N=1101) and unemployed (N=1100). The reliability of NEScale with 31-items scale revealed cross loading of items and resulted in a 24-items scale as a final version of NEScale that reflects three subscales, "Positive", "Negative" and "Trauma and Stress-related".

Chapter 7 illustrates the use of the Nottingham Emotional Scale (NEScale) on the unemployed population (Study 3 and Study 4). The assessment of test-retest reliability across a 2, 4 and 6-week interval showed that results are stable over time. The validity of the scale was related to 28-item Brief Cope Scale and Depression, Anxiety, Stress Scales (DASS-42 item), which assess related constructs. In terms of discriminant validity, the

scale proved to be different from Satisfaction with Life Scale (SWLS- 5 item) and Subjective Happiness Scale (SHS- 4 item).

Chapter 8 presents a discussion on the dominant emotions of NEScale's employed and unemployed participants inside (urban area) and outside Athens (rural area) who reported three common prevailed positive emotions "Love", "Trust in me", and "Pride" and one common prevailed negative emotion "Social Injustice". Each emotion is discussed through their elicitors and action tendencies to understand their adaptive, coping and motivational purpose for individuals' well-being and goal achievement.

Chapter 9 discusses the emotion differences of employed and unemployed participants, explores its links with geographic and gender issues and introduce this research's finding that long term exposure to negative experiences result in Post - Traumatic Stress Disorder (PTSD). It presents the issues that this thesis has raised and propels the contribution and the possible use of the NEScale on the gene-environment and positive psychology research field and presents this research's impact by covering its academic, societal, and economic impact through its strengths, limitations and future research.

Chapter Two: Literature Review

2.1 Introduction

The main purpose of this research is to develop a measure of emotions towards stressful events, in this research specifically towards financial hardship and unemployment. How culture affects unemployment is a controversial issue that finds supporters on the role of culture as a powerful explanation to the economic and social problem of unemployment (Grosso and Smith 2011) and on the opposing view that unemployment is cultural free since differences in culture explain differences in unemployment duration on the order of 20% (Brügger, Lalive et al. 2009). However, this research supports components of unemployment and financial hardship are universal, follows Sauter's et al work (2010) and suggests that there is a universal intuitive and immediate recognition of basic emotions that serve as adaptations that allow humans to survive.

Although several studies have revealed an association among financial hardship (Souza, Strazdins et al. 2003, Butterworth, Leach et al. 2011), unemployment (Creed, Muller et al. 2001), and decline of mental health (Karsten and Klaus 2009) these findings have not been met with advances in the measurement of emotions via self-report questionnaires. The emotional impact of unemployment has not been sufficiently addressed, either in Greece or across Europe and worldwide, suggesting that there is a lack of support. Additionally, little is known about the emotional experiences and

emotional consequences of employment (Meth 2009) and unemployment (Krueger and Mueller 2012).

An examination of the literature provided the concept that to understand a subjective emotional experience, we need also to measure the emotional subjective experience of any person and in our case of any individual in financial hardship and unemployment. However, a measurement of these states does not exist. Researchers commonly rely on scales assessing positivity and negativity rather than discrete emotions, even more discrete emotions in relation to financial hardship and unemployment. Knowledge was clearly preserved on a specific field and fit them in a two-dimensional Valence -X-Arousal model (Kuppens, Tuerlinckx et al. 2013). That is, emotions may be positive or negative, and they may be highly arousing or less arousing. The problem is that, using these two dimensions, it remains hard to further separate some emotions in a different dimension or element and updating in that way the emotion context to reflect new and unexpected information. Izard (2011), Levenson (Levenson 1994, Levenson 1999), Panksepp and Watt (2011) agree that while individual can change the conditions and intensity with which basic emotions are triggered and experienced, they cannot create basic emotion that is not already possible via genetically encoded neural structures; that means that it is possible to locate and isolate those neurons and achieve evidence of genetically determined capacities to experience each emotion separately. Moreover, the psychology today requires that feelings are just subjective and not facts because many different things may produce an emotional response (Solomon 2007). However, this is probably our barrier to create the frame to explore that specific events may produce distorted perceptions but consistent emotional reactions

2.1.2 Emotions and Unemployment from beyond Greece

Deteroration of mental health and emotional well-being were shown to be both a consequence of and a risk reason for unemployment around the world with increase in depression, suicide, and violent behaviour (Vuori, Silvonen et al. 2002, Antti 2010, Reeves, Stuckler et al. 2012, von Scheve, Esche et al. 2017). A blinking attention light is on all European countries that have been affected by the economic crisis and unemployment where the frequency of mental health disorders has been increased and is viewed now to be a high risk factor for well-being (Guardiola, Picazo-Tadeo et al. 2014, Sagel 2018, Voßemer, Gebel et al. 2018).

However, emotional responses to unemployment seem an inappropriate category of research studies analysis since the main focus seems to be mostly on the emotional competencies and how an individual can regulate the emotions to increase employability (Nelis, Kotsou et al. 2011, Hodzic, Ripoll et al. 2015). Alternatively, individuals who cannot attenuate the emotional negative effects of their unemployment status are considered people with deficits in emotional intelligence (Extremera and Rey 2016). The longer the unemployment goes on, the more severe the psychological consequences, with increased depression and other health issues worsening over time. Rutgers study portaited 1,200 unemployed Americans over a period of 12 months and they were emotionally traumatized showing that 77% were stressed, 64% felt anxious, 61% reported feelings of helplessness and 54% were hopeless (Van Horn and Zukin 2009).

Eventhough more unemployed than employed emerging adults were classified with depression (Whooley, Kiefe et al. 2002, Brand 2015), harmful effects on life

satisfaction (Stavrova, Schlösser et al. 2011, Wulfgramm 2014, Chen and Hou 2018) and affective well-being (Pultz and Teasdale 2017, Voßeme, Gebel et al. 2018), studies directly measuring and comparing emotions, well-being and their temporal dynamics in anticipation of, and response to, unemployment are absent from the literature.

2.2. Psychological approaches to the Emotion Research

In the literature on emotion it is difficult to describe and define emotion in its everyday use. A possible reason might be that everyday word 'emotion' is complex in meaning (James 1884, Russell and Barrett-Feldman 1999). Emotions prepare the organism to deal with important events in their lives and thus may reflect states (what a person is experiencing at the moment) of action readiness (Frijda 2009).

The three most important psychological approaches to the emotion research are the dimensional, basic emotion, and componential emotion approaches. The Component process model (Oatley and Johnson-Laird 2014) is a cognitive approach with three cognitive theories of emotion: a) action-readiness; a stimulus-response idea that remains under active development, b) core affect; a state with two dimensions of pleasure and displeasure level, and c) communicative; emotions are communications within the brain and among individuals. Understanding the relationship between emotion and cognition through CNS, NES, ANS and SNS (these synchronized changes are monitored by central, integrative representation systems to allow regulation) is not one of this research project aims thus a cognitive framework has not been selected. The dimensional view of emotion (Rubin and Talarico 2009) holds that all emotions are characterized by two, or sometimes three, dimensions (Osgood 1966) and the dimensions include some measure

of valence or pleasantness and some measure of intensity or arousal (Watson and Tellegen 1985). This approach favours the idea that measures of emotional responding reflect dimensions rather than discrete states and it is not in accordance with this research aim.

This research's emotional theoretical framework is based on basic emotion theories, inspired by Tomkins' (1962) rediscovery of Darwin's (1872/1998) work on the expression of emotion, were developed by Ekman (Ekman 1992, Ekman 1994, Ekman 2003) and Izard (Izard 1977, Izard 1992, Izard 2011). The hypothesis is that a specific type of event, based on individual's subjective experience, activates a specific affect program corresponding to one of the basic emotions and creating distinctive expression forms including an action tendency for their well-being and goal achievement.

2.2 Measures of Emotion

From an everyday routine perspective, experiencing emotions like happiness, joy, hope and anger, sadness is an easy task that helps you to conclude whether someone is experiencing a particular emotion. However, scientific evidence suggests that measuring a person's emotional state is one of the most puzzling problems in emotional (affective) science. According to the review on measures of emotion, the most commonly used measures are (Mauss and Robinson 2009):

1. Self-reports of emotion that they relate to currently experienced emotions. The review of this literature suggests that dimensional frameworks, relative to discrete ones, better capture this measure of emotion.

2. The ANS is a general-purpose physiological system responsible for modulating peripheral functions. The idea that discrete emotions have distinct autonomic signatures has not represented well in the literature.
3. Startle response magnitude as a measure of emotion. Startle in response to a sudden, intense stimulus is a universal reflex that involves multiple motor actions, such as neck, back muscles and an eye blink. The measure does not appear to assess discrete emotional states.
4. Brain states as a measure of emotion (a) EEG measures typically contrast activation in fairly large regions of the brain, often anterior (i.e., front of brain) versus posterior (i.e., back of brain) in combination with the distinction between left-sided and right-sided hemispheric activation, (b) Neuroimaging studies, using fMRI or PET technologies, can detect activation in far more specific brain regions than EEG.
5. Behaviour as a measure of emotion: (a) Vocal characteristics examine the acoustic waveform of speech and then assessing whether such acoustic properties are associated with the emotional state of the speaker. The most common measures are voice amplitude and pitch., (b) Facial behaviour: (a) Observer rating. Many of the relevant studies have quantified facial behaviour using componential coding. In most componential coding systems, trained coders detect facial muscle movements—or "facial actions"—using reliable scoring protocols The most widely used componential coding system is the Facial Action Coding System (Ekman, Friesen et al. 2002), (b) involves measuring electrical potential from facial muscles via the placement of electrodes on the face, (c) Whole-body

behaviour presents the idea that certain emotional states may have distinct bodily behaviour signatures.

The available literature data is mismatched with the notion that discrete emotional states are categorically different from one another. The existing measures of emotions appear to be structured along dimensions such as valence and arousal rather than discrete emotional states such as love, pride, sadness, fear, or anger.

2.3 Model of Basic Emotions Approach in Emotion Research

Basic emotions approach in research is influenced by Darwin (1872/1997) and treat emotions as separate that differ from one another in important ways opposing the perspective that emotions are essentially the same and that are differing only in terms of intensity or pleasantness. An evolutionary and social constructionist perspective balance evolution and universality in emotion expression. Innate factors play a role in accounting for the characteristics they share. Basic emotions can be positive or negative (Ekman and Cordaro 2011, Izard 2011) indicated that ontogeny (psychosocial influences) that trigger negative basic emotions is responsible for failing to adapt and cope while positive ontogeny and phylogeny of the basic emotions is designed to adapt and survive.

Each emotion helps individual to evolutionary developed with the primary process involved since signposts the direction that has better outcome to achieve a goal. Tooby & Cosmides (1990) tell us that "emotions impose on the present world an interpretative landscape derived from the covariant structure of the past . . .". . Challenging the characteristics of basic emotions: 1) distinctive universal signals, 2)

distinctive physiology, 3) automatic appraisal quick onset, 4) distinctive subjective experience, 5) distinctive appearance developmentally, and 6) presence in other primates does not terminate the variety of affective phenomena rather it points us the gaps in our knowledge.

The importance of emotion expression and the importance to clarify their function either for their role to the nervous system that needs to discharge excess excitement (Spencer 1860/1891), either for monitoring our past as a species in dealing with fundamental life tasks through ontogeny and phylogeny, its basic function of expression lies on the way we reply to an event which marks the emotions.

Research on emotion flourishes on many disciplines yet there is no agreement on its definition and theorists of basic emotions disagree on the processes that activate discrete emotions (Ellsworth and Scherer 2003). Ortony and Turner (1990) gathered a wide range of research on identification of basic emotions (Table 1) demonstrating in that way the debate about the nature of emotions, their purposes, their relations to broad affective dimensions, the procedures that trigger them, and their role in our everyday life.

Table 1: Research on identification of basic emotions

Theorist	**Basic Emotions**
Plutchik	Acceptance, anger, anticipation, disgust, joy, fear, sadness, surprise
Arnold	Anger, aversion, courage, dejection, desire, despair, fear, hate, hope, love, sadness
Ekman, Friesen, and Ellsworth	Anger, disgust, fear, joy, sadness, surprise
Frijda	Desire, happiness, interest, surprise, wonder, sorrow
Gray	Rage and terror, anxiety, joy
Izard	Anger, contempt, disgust, distress, fear, guilt, interest, joy,

	shame, surprise
James	Fear, grief, love, rage
McDougall	Anger, disgust, elation, fear, subjection, tender-emotion, wonder
Mowrer	Pain, pleasure
Oatley and Johnson-Laird	Anger, disgust, anxiety, happiness, sadness
Panksepp	Expectancy, fear, rage, panic
Tomkins	Anger, interest, contempt, disgust, distress, fear, joy, shame, surprise
Watson	Fear, love, rage
Weiner and Graham	Happiness, sadness

Disagreement was viewed as an opportunity in this research project and not as a threat since NEScale as a first developed measure needs a strong theoretical justification for. Under that scope this research was compelled to rely on the four model of basic emotion theorists that agreed on the classification of the basic emotions and provided evidence and arguments showing that. In that way, each emotion's evidentiary base characteristics, criteria, implications can possibly give us a path of knowledge on emotion consequences, it is most amenable to empirical investigation, and emotion-behaviour relations due to stressful events and deal with all the relevant evidence.

Each of the four authors, all leaders in the field, present their concept of basic emotions with mostly similar criteria. Specifically, although Ekman and Cordaro (2011) refers to the basic list of emotions as basic emotions and Izard (2011) as " first-order emotions" all agree on how a basic emotion differ from a discrete one. The difference lie that basic emotions involve (a) automatic appraisal, (b) are bio-evolutionary determined (c) can be positive or negative; (d) strong cultural agreement, (e) free from blending with

other emotions categories since basic emotions differ in physiology from one another, and (f) ontogenic nature.

Basically, Ekman and Cordaro (2011) agree that basic emotions: (a) are fundamentally different from one another; the data consists of facial, vocal, autonomic physiology, and study of the events that lead one or another emotion (Ekman and Davidson 1994), (b) do not need a uniquely evolutionary origin explanation since they are also social constructed in ways by which we react to universally shared stimuli (Parkinson 1996); (c) are evolutionary enabled to adapt to universal fundamental life tasks relevant to our goals such as losses, frustrations, successes, and joys.

On the same way, Izard's (2011) differential emotions theory (DET) separates between basic emotions (or first order emotions), which includes positive and negative emotions, are automatic and largely no consciously, and emotion schemas (or high order emotions) which contain self-control mechanisms.. Clearly basic emotions involve only the minimum cognitive processes without reportable awareness whereas emotion schemas are the emotions of everyday life which are motivational and represent our affect-cognitive plans for thought and action. According to Izard basic emotions are interest, joy, sadness, anger and fear which involve (a) specificity of function, (b) are results from bio-evolutionary processes, (c) hold comparatively more evolutionarily derived features (e.g., expressive/social signals), (d) earlier ontogenic influence than schema, (e) hold important to survival and well-being motivational methods. All basic emotions entail at least one evolutionarily determined feature and specifically the feeling component that cannot be learned. That means that we cannot learn how it is to feel happy, (f) have some different sub brain and neural circuits, (g) different motivational

and regulatory functions, (h) are often associated with different expressive behaviours and actions.

Ekman and Cordaro (2011) research gives the background first to differentiate basic from non -basic emotions and then to contextualize them into families. Each emotion is a family of related states and have criteria that differ between emotion families and help us to distinguish one emotion family from another. An emotion family comprises phylogenetic themes with unique characteristics and the variations on each theme which can call them individual differences are the result of social experience and learning.

Izard has a further step and argues that the basic emotion is transformed to emotion schema when cognitive activity moves from perceptual process to high order cognition. He pinpoints that frequency of basic negative or positive emotions varies and is influenced by individuals' genetics or emotional character. Basic emotions in older children and adults perceived as emergencies and this is why the frequent presence of basic negative emotions in individual's everyday routine may signal the existence of a mental health problem such as anxiety. Repetitive feeling -thought processes, depending on their valence and quality of stimulus, become part of a personality trait or part of a psychopathological condition (Izard 1972, Izard, King et al. 2008)

Interestingly, Ekman and Cordaro add that certain characteristics found in nearly all basic emotions are: 1. Distinctive universal signals. 2. Distinctive physiology. 3. Automatic appraisal. 4. Distinctive universals in antecedent events. 5. Presence in other

primates. 6. Capable of quick onset. 7. Can be of brief duration. 8. Unbidden occurrence. 9. Distinctive thoughts, memories, and images. 10. Distinctive subjective experience. Izard also agrees that each basic emotion has a distinct subjective experience (feeling component). While the feeling remains the same in quality for each emotion, events and context can change the emotion-related behaviour Ekman and Cordaro mention that the emotion can be enacted in either a constructive or destructive fashion. Izard enriches this concept by agreeing with Ekman and Cordaro the context can change what we perceive as a threat or not. Izards highlights that feelings components of basic emotions may vary in intensity, but their quality is always the same and their adaptive nature of emotions depends on their inherent motivational characteristics that leads our thinking and behaviour. Izard's also signifies that frequently negative emotion experiences can lead to severe mental health problems such as posttraumatic stress disorders.

Levenson (2011) also believes that basic emotions link to survival purpose and are continuous across species, time and place. For him only a subset of emotions is basic, and their characteristic qualities include (a) distinctness, (b) hard-wiredness meaning circuitry built into the nervous system), and (c) functionality that gives a solution to a survival-relevant task. According to him, this can be seen in the six emotions of (a) enjoyment (playing), (b) anger (fighting), (c) disgust (rejecting), (d) fear (avoiding), (e) surprise (orienting), (f) sadness (help seeking), (g) relief/contentment (soothing), (h) interest (exploration), and (i) love (attachment). Basic emotions are different due to (a) separateness; clear boundaries exist that distinguish one discrete emotion from another, (b) finiteness; they are limited, and (c) singularity; cannot be reproduced through combined dimensional elements such as valence and arousal.

Levenson agrees with Ekman's (1992) criteria of basic emotions and he groups them into three larger groupings (a) distinctness (physiology), (b) continuity (presence in other primate species), and (c) structure/function; the three criteria which he also adopts and uses in his theory as the three basic criteria of basic emotions.

Basic emotions function to plan coping action to challenges can also be found in basic emotion networks (BrainMind organization as they call it) according to Panksepp and Watt (2011). BrainMind stops in simple words the emerge of a disorganised scene in individuals' everyday life. As a classic affective neuroscience view as levels of analysis they favour (a) primary-process core affects arise from ancient subcortical processes, (b) secondary-process elaborations—namely emotional learning—arise from Pavlovian/classical conditioning and instrumental/operant learning principles, and (c) tertiary process emotions—complex cognitive-affective combinations, such as reflections and affectively charged thoughts about ongoing emotional issues. According to them, the basic emotions refer to "prototype emotional states", and work as a "command network". They contradict the district emotion approaches of basic emotions functional separateness and agree on brain- based emotions typology. They emphasize that primary-process emotions figure heavily in the genesis of psychiatrically significant emotional imbalances; a vital research area that biological psychiatry needs to focus on.

To sum up, all basic emotions entail at least one evolutionary determined feature and specifically the feeling component that cannot be learned. Basic emotions involve: (a) automatic appraisal, (b) are bio-evolutionary determined, (c) can be positive or negative, (d) strong cultural agreement, (e) differ in physiology from one another, and (f) hold important to survival and well-being motivational methods. Finally, the frequency

of basic negative or positive emotions varies and is influenced by individuals' genetics or emotional character. According to Izard (Izard 2011) basic emotion in older children and adults perceived as emergencies and this is why the frequent presence of basic negative emotions in everyday life may signal the existence of mental health problems such as anxiety.

2.4 Daily Hassles and Unemployment's impact on Emotion

Stressful life events and daily hassles according to basic emotions perceived as emergencies by older children and adults this is why the frequent presence of basic negative emotions in individual's everyday routine may signal the existence of a mental health problem (Izard 2011). Holmes and Rahe (1967) identified 43 major stressful events and pinpointed that act as life changing unit depending on how traumatic it was felt to be by a large sample of participants. Unemployment and its chain of changes that it has on people's life were all classified as major stressful events. Few may consider that being fired at work is the onset of a negative major changes in the financial state, living conditions, family responsibilities and basic daily living expenses such as food, heating and electricity. Unemployment personal and social costs represent the face of financial hardship and it is the start of a catastrophic chain of events that has become a matter of survival in our days and often results to homeless and suicide.

The uncertain future and the psychosocial stressors in the working environment influence all workers but seems that white collar workers carry higher stress with negative changes in their health status (Theorell, Hammarström et al. 2015). Work

engagement levels of white collar employees are higher than blue collars and result with higher levels of anxiety and depression (Kang, Park et al. 2016). Moreover, white collar workers either searching employment in an increasingly competitive job market either when their employment security is threatened (Ferrie, Shipley et al. 1998, Ferrie, Shipley et al. 2001) demonstrate poor mental and physical health. The new world of white collar worker consist of insecure re-employment resulting in minor psychiatric morbidity (Ferrie, Martikainen et al. 2001).

The working environment of a society tells us the world in which we live. Greece continues to be confronted with the highest youth, total and long -term unemployment rate in the EU (unemployment rate 23.6 %, long -term unemployment rate 17 %, youth unemployment rate 47.3 % in 2016 (European parliament report, 2017). Furthermore, more than one in three Greeks lives in a situation at risk of poverty or social exclusion (35.7 % in 2015) even if the rate had slightly decreased compared to 2014.

Individuals who experience financial hardship tend to suffer from elevated levels of distress because of greater exposure to chronic and acute stressors (Kiele et al 2015) and is associated with the onset of mental health problems over time. Unemployment is the most worrying case because it entails hope of reemployment and programmes address reemployment orientation and do not consider that unemployed emotional stability might be affected due to unemployment. As a result, financial hardship, unemployment and their emotion impact have been plagued by data limitations while mental health largely have ignored that financial hardship and unemployment as one of its indicators act as an emotional abuse that creates not only stress but also traumas with long term effects.

2.4 Unemployment as the Neglected Child of Financial Hardship

Unemployment is a topic for multidisciplinary study with a need to consider its emotional impact on individuals since unemployment rate is close to its all-time historic very high across Europe and especially in Greece. The profile of financial hardship in Greece is represented with the highest unemployment rate of 20.2% in Europe (European parliament, 2018), as a result of the austerity and the wider recession the last 10 years in Greece.

Many authors have described how unemployment have a serious negative impact on mental health well-being, but it is not clear how this happens (the process itself) nor does there appear to be much evidence -based research to support this. One of the aims of this chapter is to conduct a comprehensive search of the literature review published in peer-reviewed journals between 1920 and 2018, synthesize current literature and introduce: (1) the definition and types of unemployment, (2) its theoretical framework (3) what unemployment experience is, and (4) interventions in order to have a picture of a potential design of intervention for unemployed individuals.

2.4.1 Definition and Types of Unemployment

Job loss is a life event in which paid employment is involuntarily taken away from an individual (McKee-Ryan, Song et al. 2005). As a significant life event, it is one of the top 10 traumatic life experiences (Spera, Buhrfeind et al. 1994, Moorhouse and Caltabiano 2007). International Labour Organization (ILO) uses 3 definitions for unemployment (extracted from Labour Market Trends): (1) ILO unemployment: The

ILO definition of unemployment covers people who are out of work, want a job, have actively sought work in the previous 4 weeks and are available to start work within the next fortnight; or out of work and have accepted a job that they are waiting to start in the next fortnight, (2) Economically active: The economically active population are those who are wither in employment or ILO unemployed, (3) ILO unemployment rate: The percentage of economically active people who are unemployed on the ILO.

Unemployment acts as a 'main precipitant cause' leading of unhappiness and dissatisfaction in life (Winkelmann and Winkelmann 1998, Clark 2006) and although its definitions of labour force differ by country, we may say that its country of origins is USA since any definitions and indicators stem by the US Department Bureau of Labour Statistics. An unemployed person is defined by Eurostat, according to the guidelines of the International Labour Organization, as:

- someone aged 15 to 74 and 16 to 74 years in Italy, Spain, the United Kingdom, Iceland, and Norway,
- without work during the reference week;
- available to start work within the next two weeks (or has already found a job to start within the next three months);
- actively having sought employment at some time during the last four weeks.

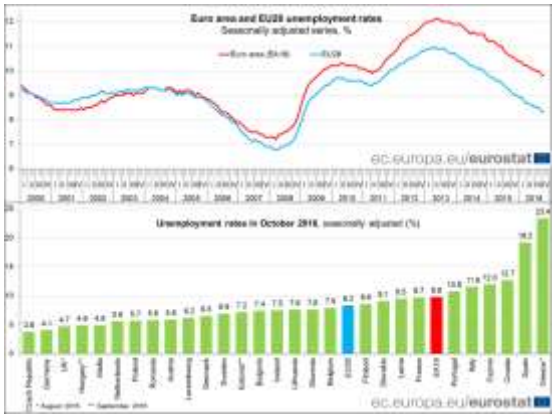
Evidently, the concept of unemployment (Standing 1981) is hard to describe and reveals an age-related literature problem since as a term is not clearly classified the last 40 years and a possible reason might be that it unites a condition (being without employment), a need (for work), an attitude (desire for work), and an activity (searching

for work). In its most basic form, it can be classified as: (a) voluntary in which the unemployed choose not to accept his current work options (Lucas 1981) and (b) involuntary in which the unemployed wants to work, with respect to preferences and skills and yet is unable to find work (Chari 1983). In its components, more complex forms arise and the most basic and necessary of these are:

- Frictional, in which the unemployed person quits his job and job seeks the wage rate in accordance with his job duties and skills in the labour market (McCall 1970, Gronau 1971, Mattila 1974)
- Structural, in which even if there is no a deficiency of aggregate demand, changes in demand and in production happen and cause structural imbalances in labour market (Jackman and Roper 1987, Dalbert 1997)
- Cyclical, in which there is cutting production and laying off workers during recession times. Cyclical fluctuations of the unemployment rate depend on the business cycle (Lilien 1982, Brainard and Cutler 1993)

Interestingly, 'frictional' and 'structural' unemployment assumes that jobs are available (Holzer 1993) but the stable high increase in European unemployment over time (Graph 1) and with the present Greek unemployment rate hitting new record at 23,4pc points out a different economic reality.

Graph 1(Unemployment rates -Eurostat)



Paradoxically, official unemployment decreased among all age groups but weighed more in the 15-24 age group (42.3 percent from 44.2 percent in April 2017) and the 25-34 age group (25.4 percent from 27.5 percent) while employment was barely unchanged (Trading Economics 2018). This leads to the conclusion that long-term unemployment is already one of the main concerns and workers are suffering unemployment rates comparable to those of Great Depression (1929–1939) in which unemployment has remained above 8% for 43 consecutive months (Statistics). This is associated with Perrucci et al (Perrucci and Targ 1988, Perrucci, Perrucci et al. 1997) who highlighted the influence of economic climate in the effects of unemployment and referenced in their earlier study that findings of data are dissimilar were collected in a poor economy. Another view opposed the concept that "the poor are the chief sufferers of inflation", and reviews showed there is no evidence that wellbeing is affected by financial worries (Lucas, McIntosh et al. 2008). However, Perrucci et al (1988, 1997) results suggested that unemployment experience is highly linked with socioeconomic deprivation that affects and harms well-being. Under the scope of the present socioeconomic changes in Greece and across Europe with a Greek suicide rate increased of 36% in Greece and keeps soaring (Economou, Angelopoulos et al. 2016), the need for

developing appropriate interventions to support the millions of people who are and will become unemployed in the future become more intense. Based on the available data, unemployment conditions may influence the suicide rate in Greece but may nevertheless compose an important antecedent variable in the causal chain leading to self-harmful behaviour due to unemployment.

2.4.2 Theoretical Framework for Understanding Unemployment

The problem of the unemployment experience is to describe it, since as an experience of peoples' life has different ways of expression and there is lack of research on the emotional process and the mediating factors, the psychological processes involved associated with becoming unemployed and lack of research about the role unemployment plays in the lives of people. There is nothing universal to all illustrations of unemployment except that the illustrations are more or less archetypal. Support for this has been given from 6 theoretical models that are frequently presented as the theoretical model for understanding the experience of unemployment. The 6 theoretical models are:

(1) The 'rehabilitation' approach (Tiffany, Cowan et al. 1970) argued that the core of unemployment are the psychological reasons: "they show avoidance behaviour patterns or what has been referred to as 'work inhibition' which implies that they are physically capable of work but are prevented from working because of psychological disabilities". Surprisingly, this viewpoint that the appropriate response to unemployment is to rehabilitate unemployed and the need to control and manage unemployment feelings rather than deeper understand them is reflected in the way we recognize and talk about unemployment today. This is confirmed by the fact that the Western societies of today

are mostly concerned with providing training to rectify unemployed individuals' lack of responsibility and self -control,

(2) The stages model is attributed to Eisenberg and Lazarsfeld (1938) based on interviews with the unemployed in which they suggested a 3 -stage model:

> *First there is shock, which is followed by an active hunt for a job, during which the individual is still optimistic and unresigned; he still maintains an unbroken attitude. Second, when all efforts fail, the individual becomes pessimistic, anxious, and suffers active distress; this is the most crucial state of all. And third, the individual becomes fatalistic and adapts himself to his new state but with a narrower scope He now has a broken attitude.*

The belief that individuals as a response to stressful events follow a coping process across recognized psychological stages is widespread in psychology; particularly in fields such, bereavement (Hardt 1978, Charlton and Dolman 1995, Maciejewski, Zhang et al. 2007), retirement (Gall, Evans et al. 1997, Reitzes and Mutran 2004), and career change (Slocum and Cron 1985, Smart and Peterson 1997). Evidence in favour of its stages in relation to unemployment has found in Eisenberg & Lazarsfeld (1938), Jahoda et al (1933/1972) and Feather (1989). Then again, this is questioned since Hilton and Slugoski (Hilton and Slugoski 1986) discovered that people bring their subjective understanding of the world and rely on themselves in assigning cause for events. Hence relationship between employment status and a phasic response to unemployed people's experience of unemployment is complex and nevertheless it would be naive to believe

that solely unemployment experience shapes individuality even if evidently unemployment damages psychological well-being.

(3) Jahoda's (1981) functional model (deprivation model) is the most well known for unemployment explanation. In Jahoda's model the term of unemployment is used to refer to the following deprivation and disaffection: (a) time structure, for example employment entails a time structure on the working day, (b) shared experiences and communication with others outside the family, (c) being part of others' goals and purposes that transcend their own, (d) personal status and identity, (e) activity. This model supports the social dimension of unemployment and Jahoda argued that work connects the person with reality '*ties to reality' provided by employment are pleasurable or not is only a secondary consideration: I'. . . even unpleasant ties to reality are preferable to their absence*" and supported that people need to feel valued members of a society and not detached and inactive. Jahoda argued that "unemployment is psychologically destructive to the unemployed individual as they lack the benefits of these latent functions that normally provide a psychological supportive role" and having an unsatisfactory and insufficient employment is preferable to the absence of work.

(4) Warr's (1987) vitamin model is similar in many respects to Jahoda's (1981) functional model. He identified 9 environmental characteristics or 'vitamins' which are believed to influence and shape mental health and function in a non-linear pattern: (a) opportunity for control, (b) opportunity for skill use, (c) externally generated goals, (d) variety, (e) environmental clarity, (f) availability of money, (g) physical security, (h) opportunity for interpersonal contact, and (i) valued social position. The underline concept of this model is that when the above 9 environmental factors that act as vitamins

are in low levels, deficiency results that contributes to poor mental health. This indicates, similar with Jahoda's model 6 employment functions, that environment and its characteristics are more important than the experience of the person.

(5) Fryer's and Payne (1984) agency critique, as an alternative to Jahoda's functional (passive) model, suggested a view of the unemployed person as an "... active social agent striving to make sense of his or her situation and acting according to reasons and intentions to pursue chosen goals. . ." According to Fryer (1992) unemployed people are active, determined, begin new activities, future-oriented, guided by values and purposes, attempting to make sense of, and have control over events. Both Frye and Payne argued that Jahoda's functional model and Warr's vitamin model fail to deal with the interpretation of unemployment as seen from the perspective of the unemployed themselves. However, the real problem is not activity versus passivity; most individuals are both active and passive. On the other hand, it would be important in research to have a distinction between individuals who are passive versus active, those who cope with the experience of unemployment and those who do not cope to have a clear picture of individual's unemployment experience.

(6) O'Brien's (O'Brien 1984, O'Brien 1985) model of personal control is based on a reanalysis of Bakke's studies of unemployment during the 1930's and argued that prior employment experience also plays a significant role on unemployed people sense of personal control. Bakke's (1934)words '*When so much of your life is ordered by others why pretend to be able to do anything yourself with the rest*?' clearly addresses the sense of vanity of the Great Depression period and the disappointment of people have had from the Wall Street Crash in 1929. Great Depression period was not only an economic failure

but also a moral failure since the problem was not capitalism, but the inhumanity of this economic system: '*The suffering of so many was an open wound for British society inflicted by capitalism... and there was no way of healing it save by bringing the capitalism system to a close'* (Parker, 2010:81).

O'Brien points out that '... many of the characteristics commonly attributed to the unemployed such as apathy, depression, and external control were often due to the combined effects of past work experience and economic deprivation. Similarly, with Eisenberg and Lazarsfeld stages model of unemployment, it would be risky and naive to believe that experience shape personality due to the fact that it would be a vicious circle of questioning whether personality determines our life experience or the vice versa. The most important question on that subjects will be 'what is more helpful for the unemployed to achieve balanced mental health well-being during detrimental experience'.

2.1.3 Unemployment Experience

Unemployment is one of the most detrimental individual experiences with a lasting negative effect (Leder, 1994; Vansteenkiste et al, 2004). The medical literature has established links between unemployment and ill health, such as coronary heart disease (Sales & House, 1971; Luepker, et al, 1993), strokes (Huppert, 2006), suicide (Sainsbury, 1986:17-40; Goldsmith, 2002:207) and shorter life span (Palmore, 1969). Moreover, Kposowa (2001, 2003), Neumayer (2004), Bartley and Ferrie (2010) have confirmed the devastating effects of unemployment on physical health including higher mortality rates and an increased association with suicide. Studies indicate that job loss

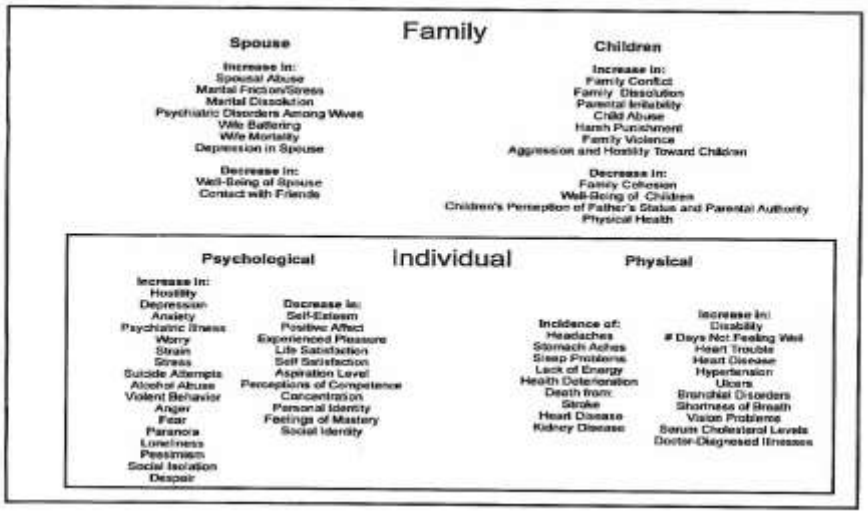
places people at increased risk of poor mental health in terms of increased depression, anxiety, minor psychiatric morbidity, and decreased self-esteem and life satisfaction (Little, 1976; Dooley & Catalano, 1980; Warr, 1983; Vinokur, Caplan, & Williams, 1987). Additionally, Feither (1997), Whooley et al (2002) and Reine et al (2004) identify the effects that unemployment may have on people's psychological well-being such as depression, lowered self-esteem and self-doubt. These findings seem particularly significant in the field of health and notably, though there is evidence that unemployment causes mental health disorders to people who previously had no mental illness (Viinamaeki et al, 1994), so far there seems to be no interventions for its strain emotional experience.

Specifically, there are no psychological treatments to help emotional coping of the unemployed. A possible defense of this might be that access to these treatments is limited by factors including the availability of therapists, time and expense. This paradox may also stem from the accepted norm and hope that unemployment will end rather than trying to find some meaning in it and intervene proactively. However, this situation potentially masks the difficulties and challenges that unemployed psychological treatment and intervention face.

Nevertheless, unemployment doesn't only impact the person who has lost his or her job, it affects the entire family. Studies suggest that unemployment brings about marital difficulties (Komarovsky, 1940; Elder's 1974; Price et al 1998), and it has the potential to adversely impact upon children in families, even more than adults (Gray and Baxter, 2011). Its link with the family creates destructive interaction patterns such as family dissolution (Wasserman, 1984; Grant & Barling, 1994; Hansen, 2005) and child

abuse (Garbarino, 1976; Widom, 1989; Gillham, 1998; Berger et al, 2011). The internal box shown in Figure 1 presents the negative physical and psychological outcomes for the unemployed individuals and their families (Hanish, 1999:196). However, it is not yet clear what role unemployment play in this, and what is the impact of related factors.

Figure 1 Negative physical and psychological outcomes for the unemployed individuals and their families.



Moreover, contrary to the popular and accepted belief that less skilled individuals are more likely to suffer due to unemployment (Nickel & Bell, 1995), Clark & Oswald (1994) gave evidence that distress from losing a job is greater for those who are highly educated. In addition, there are no gender differences in length of unemployment and reemployment (Perrucci et al, 1997); but there are gender differences in remuneration and performance in employment as women are systematically paid less than men doing the same work (Treiman & Terrell, 1975; Oakley, 2000; Lorber, 2005). Also, unemployment is antagonistic with the older age individuals since they face various barriers when they

try to regain employment (Rife & Belcher, 1994). The main feeling of unemployment experience is the feeling of not treated fairly and equal. Those who lost their jobs and felt they had been treated unfairly about a personal characteristic such as age were found to be under the most psychological distress (Miller & Hope, 1994). Unemployment in 2013 does not concentrate on specific groups in the population as all workers are threatened as result if the European financial crisis. The present high unemployment rate in all European countries reminds that we have a lot to be modest about since the main reason of unemployment is not anymore, the job opportunity and skill obsolescence.

It is interesting to pinpoint that in contrast to the long history of research on how unemployed people can sustain their commitment to the labour market (Warr, 1985; Claussen, 1993; Scarpetta, 1996; Martin & Grubb, 2001; Warr & Jackson, 2011) and how they can be trained to facilitate their return to the labour market (Maysent & Spera, 1995; Black et al, 2003; Vuori & Silvonen, 2005), there is little research on understanding unemployment subjective experience. Guidano (1987, 1991) said that the construction of personal meaning is an activity which from the beginning of human development corresponds to a process of sequencialization of significant events and contributes to transparent knowledge construction (which is in accordance with the ontological standpoint of this research. Contemporary job loss approaches and interventions systematically disregard the personal meaning of emotions and events for the unemployed people. This makes little sense since unemployment is mentally distressing and is not chosen voluntarily (Clark & Oswald, 1994).

2.4.3 Present Unemployment Interventions only Sponsor Reemployment

There is a diverse literature on unemployment indicating that unemployment is one of the most detrimental individual experiences with a lasting negative effect (Leder, 1994; Vansteenkiste et al, 2004), a fact that highlights the importance of a closer examination of unemployment in individual. Additionally, many authors have described that intervention programs dealing with the psychological distress and issues of unemployment are helpful (Spera, 1994; Maysent & Spera, 1995; Vinokur et al, 1995; Caplar et al, 1997). However, it is debatable what factors are much more important in research since qualitative accounts of the personal and family suffering caused by unemployment have been available for nearly half a century (Bakke, 1934; Angell, 1936; Komarovsky; 1940), but structural problems to labour market recovery are considered, as it seems, more significant than well-being. This can be seen by the various systematic reviews of interventions to enhance entering, or return-to-work with different populations such as cancer patients (de Boer Ager et al, 2011), after traumatic brain injury (Kumar et al, 2009), workers with back pain (Schaafsma et al, 2010), with occupational asthma (Groene et al, 2011) with multiple sclerosis (Khan et al, 2009) and workers with HIV (Okpo et al, 2012). The main purpose of those existing interventions is to sponsor reemployment and it is not related to subjective well-being. Additionally, interventions are often targeted at low-income or poorly-educated young people, particularly in non-developed countries (Betcherman, 2007) and training is the dominant form of intervention used to assist them into the labour market.

A recent systematic review from NHS (Moore, Kapur et al. 2017) looked at interventions to reduce the effects of unemployment and financial hardship on anxiety

and depression and the 11 interventions that found, all published before 2000, concern: (a) five involved job club interventions for unemployed people to give job skills training, (b) two involves CBT to unemployed people in groups, (c) one was on debt advice that stopped early since not enough people wanted to take part and (d) single RCTs of four other interventions showed no evidence of any benefit. Challenging to say that even if financial hardship and unemployment seem to act as scourge the last decades, evidence is still limited and focus on intervention remain on the same area of skills training.

The main concept of the majority of interventions for the unemployed is to teach them and underline their job search skills (Rife and Belcher 1994, Maysent and Spera 1995). However, a key finding appears to be that successful interventions are often associated with a self-disclosure and expressing thoughts verbally (Moore, Kapur et al. 2017). The ability to reveal motives, intentions, goals, values, and emotions, seem to be help individuals deal with the situation of unemployment and advance mental well-being in everyday life.

One key lesson emerging from this short evaluation appears to be that successful empirically supported psychological interventions are associated with specific procedures and practices.

Conclusion

Jahoda (1992: 357) claimed that "no single theory about the psychological impact of unemployment exists; [and that] none is likely to emerge"; words that came true. The existing 6 theoretical models for understanding unemployment are debatable since all are

describing and explaining a small section of social reality. In searching of literature about unemployment clearly its concept is multidimensional and complex. The lack of a principal theory appears to understand the psychological experience of unemployment and the issues that influence this experience.

The available literature not only demonstrates a mismatch on unemployment definition and its nature but also literature data on emotions and measures reveals that emotions are also mismatched with the notion that discrete emotional states are categorically different from one another. The existing measures of emotions appear to be structured along dimensions such as valence and arousal rather than discrete emotional states such as love, pride, sadness, fear, or anger.

Researchers disagree to some extent about which dimensional scheme should be used and how different dimensions relate to each other. In contrast, the discrete emotions perspective contends that each emotion corresponds to a unique profile in experience, physiology, and behaviour.

Basic emotions share characteristics that differentiate them from one another and from other affective phenomena such as distinctive universality, distinctive physiology, automatic appraisal, quick onset, brief duration, and distinctive thoughts, memories and subjective experience. According to basic emotion theory individuals' everyday routine is basically peacefully oriented and when that changed under repetitive threats then the frequency of basic negative emotions signals emotional imbalances and emerge mental health problems such as post traumatic disorder. On the contrary, positive basic emotions serve as the foundation for hereditary evolved plan to survive and adapt.

Chapter 3: Research Methodology

3.1 Chapter synopsis

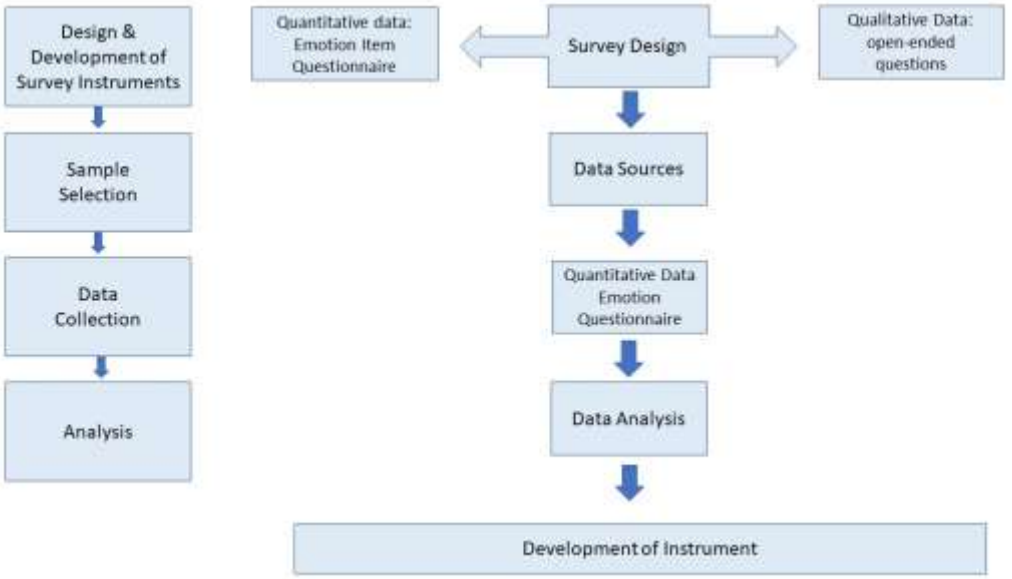
This chapter examines the relevance of research strategy and the data collection methods used in order to provide details of the methods and a rationale for the chosen research framework. This study's aims are to understand the relationship between emotions, financial hardship, long term unemployment and the use of those emotions in peoples' everyday life. In order to understand this relationship we need to be able to effectively assess them. There have been many studies indicating the effect of economic recession on mental health and the deterioration of psychological health in the unemployed and their emotions. According to interdisciplinary studies of emotion, the emotions prepare the person to deal with important events in their life. Emotional expression during financial hardship and in the unemployed is under-researched and measures of the specific target construct do not exist. The following section will provide an overview of the research design used in the four studies which includes a review of qualitative, quantitative and mixed method strategy.

3.2 Research Design

An exploratory sequential mixed method was employed in this study. The combined use of qualitative and quantitative methods is selected to be an appropriate approach for this study reviewing the ontological properties of the research (Aristotle's quantitative world of transcendental truth for the perceptual noema), and the research

questions. The goal is to discover an area of research in which quantitative and qualitative research co-exist as separate research strategies and to examine the prospects for linking the two sets of findings (Figure 2).

Figure 2 Research Design Scheme



3.3 Method

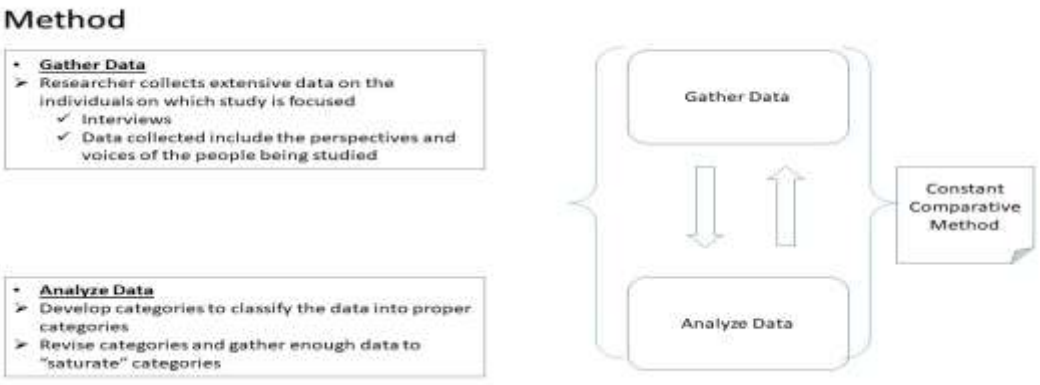
3.3.1 Rationale for Qualitative Approach – Study 1 (Pilot Study)

Qualitative research focuses on narrative and seeks to tell the story of individuals' subjective meaning of their lived experiences in their own words (Hammarberg, Kirkman et al. 2016). This process of naturalistic inquiry does not belong to a single discipline (Denzin and Lincoln 2000) but it explores and seeks in-depth understanding of social phenomena by using multiple systems of inquiry for the study of their lived experiences

including biography, case study, historical analysis, discourse analysis, ethnography, grounded theory and phenomenology (Silverman 2006, Polit and Beck 2010, Denzin and Lincoln 2011).

A qualitative approach was chosen in study 1 (Pilot Study) which aimed to discover and qualitatively conceptualise what problems exist in a social scene (in our research the focus was on financial hardship and unemployment) and the processes individuals use to handle them. The aim was to use these results to inform the development of the Nottingham Emotion Scale (NEScale) in study 2. In order to meet the research aims Grounded theory was selected as the most appropriate one since it underlines observation and the development of practice-based intuitive relationships between variables (Charmaz 2006). It involves familiarization with the data, testing, and redevelopment of propositions until a theory evolves which is "grounded" in the data from which it was derived (Dey 1999); any kind of coding paradigm should only be used when it is indicated by the data (Glaser 1992). The scheme of this qualitative research design (Scheme 1) is the following:

Scheme 1: Qualitative Research Design: Grounded Theory Study



Other qualitative approaches were taken into consideration such as phenomenology and case study; however even if both seek to collect and analyse data from participants' standpoints and researchers try to safeguard their findings that are not influenced by preconceived ideas, these were not appropriate for addressing the research aims. This research is based on the research framework of established basic emotions theory and unlike phenomenologists, grounded theorists include all data sources that might contribute to theory development and can use a specific research framework and design a research project that helps link and conceptualize theory and empirical research (Glaser 2002, Tavakol, Torabi et al. 2009). Case study as a descriptive research explores a detailed picture of the lived experience by a group by collecting multiple forms of evidence to achieve understanding (Clarke and Reid 2006). Yet, case studies scientific generalizability has often been challenged since they use a small number of subjects (Zaidah 2007). Case study presents a good narrative of the lived experience however it does not present evidence for the development of the narrative (Gillham 2010). Evidence for the development of narrative is a key point of study 1, which aims its outcome to inform the development of the Nottingham Emotinal Scale (NEScale), thus case study was not selected as the appropriate tool to address this research aim.

Grounded theory in comparison with the above approaches require the researcher to acquire a systematic way to generate theoretical constructs from a constructive perspective that demonstrate psychosocial processes to individuals who have a similar lived experience of the phenomenon under investigation (Tavakol, Torabi et al. 2009, Charmaz 2014). Its flexibility of procedures, particularly when the focus of research is hard -to-reach population groups give the researcher the opportunity to identify "ground

up" from the data how and why people behave in certain ways in a similar or different context (Foley and Timonen 2015). Grounded theory is primarily inductive and moves from the specific to the general to explain phenomena in which deduction and abduction have an essential role in building theory (Corbin and Strauss 2008, Timmermans and Tavory 2012). The constant interchange between theory and empiric research of grounded theory provided to this research the opportunity to adopt an insider view to data analysis and utilize this knowledge and be empirically tested.

3.3.2 Rationale for Quantitative Method used in Study 1, 2, 3 and 4

This section aims to describe the methodology of study 1 which utilized a mixed method, and 2, 3 and 4 which are quantitative studies. Quantintative reserachers aim to generate data that can allow outcomes to be predicted, replicated and generalise sample findings to more broadly defined populations (Burns and Grove 2005, Polit and Beck 2010). An essential interest of this research is to explore what the important emotions are in relation to events and reveal emotional changes, if there are any, in stress-related phenomena. The sequence of emotions might reflect the changing meaning of what is happening as the encounter unfolds. Under that scope, quantitative approach is the most appropriate one to record the emotions, the emotional change, if there is any change, and have no ambiguity about the concepts being recorded and provide a basis for the evaluation of health care provision for the phenomenon being explored.

Study 1 aims to build a greater insight through qualitative research and asks participants to add new emotion terms in relation to financial hardship and

unemployment on the emotional questionnaire which was based on basic emotions theory, uses the results to design a subsequent quantitative phase of the study and exploratory factor analysis reduces the large set of emotion items to a more manageable set of factors. The main applications of factor analysis which is widely used for theory and instrument development is to assess the construct validity of an instrument, reduce the number of variables, and detect structure in the relationships between variables which is why it is selected as the most appropriate statistical technique for this research (Horn 1965, Field 2013, Watson 2017). Results of study 1 inform the new NEScale for study 2. Study 2 aims to evaluate NEScale's reliability. Study 3 aims to assess stability of NEScale through a test-retest procedure that involves administering the same measurement instrument in this case NEScale questionnaire to the same individuals under the same conditions after some period of time (Boateng, Torsten et al. 2018) and study 4 tests the discriminant and convergent validity of the scale to evaluate whether NEScale measures what is intended to measure; the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration to achieve credible information (Mastaglia, Toye et al. 2003). Study 2 is a paper and internet based questionnaire, and study 3 and 4 are internet based. Studies 1,2,3 and 4 quantitantive data will be analysed using the SPSS macros developed by Preacher and Hayes (2008).

Chapter 4: Development of the Measure

4.1 Research Agenda

A research agenda related to the development and implementation of the scale development was set in order to allow the researcher through objectivity to gain insights that inform practice.

4.2 Practical Guide for NEScale Development Process

The conceptual framework "Scale construction and psychometrics for social and personality psychology" (Furr 2011) was used as a guide for the development of NEScale in accordance with established psychometric principles. Each step of the development described below will contribute to increase the confidence in the construct validity of the NEScale.

4.3 Instrument Development.

Instrument development involved two phases. The first phase involved literature search to identify the emotion terms and phase two utilized qualitative inquiry to generate more emotion items for the instrument.

4.3.1 Questionnaire Conceptualization: Articulate construct and context

The goal of this scale development is to measure emotion during financial hardship and unemployment. A literature search on psychological approaches to emotion research and theory was performed to develop construct domains for this study. This research studies from a basic-level standpoint thus it has been incorporated within a strong theoretical model of basic emotions. In particular, questionnaire construct domain is based on basic emotion theory of emotion, inspired by Tomkins' (1962) rediscovery of Darwin's (1872/1998) work on the expression of emotion, were developed by Ekman (Ekman 1992, Ekman 1994, Ekman 2003) and Izard (Izard 1977, Izard 1992, Izard 2011)

4.3.2 Creation of the Item Pool

The primary goal at this stage was to illustrate analytically all basic emotions that are potentially relevant to the target construct. In order to develop a representative emotional questionnaire this research developed its item pool with three essentials needs in mind as best director for emotional research: (a) a coherent and comprehensive theoretical model on emotions, (b) a strong model that demonstrates that each emotion is there for a pre-articulated reason , (c) a categorised emotion based on research conducted that can allow us to learn about more for a specific basic emotion in relation to a specific situation for future research

With these three needs in mind, 72 terms were selected from lists in the literature (Storm and Storm 1987) indicating the lexicon of emotions (Appendix 1) that as a whole provides a framework for the study of words and meanings within the emotional domain

and the 4 prominent models of emotion research that proposed 30 emotions from which 18 basic emotions addressed in all 4 models (Appendix 2) of basic emotions (Tracy and Randles 2011) by Ekman and Cordaro (2011); Izard (2011); Levenson (2011) and Panksepp and Watt (2011) that have each outlined the latest instantiation of each lead author's theoretical model of basic emotions (totally 90 distinct terms) which will validate the design of this research (Cook and Beckman 2006).

From this pool of the basic emotion that focuses as much on peoples interpersonal functions as on their intrapersonal functions (Griffiths 2001), we selected the final set of emotions from the reviews that included with justification the entire range of terms considered part of the emotion field and for that reason we ensured that are well and wide represented in the first item pool and included all possible basic emotions, tangential or even unrelated to the core construct (Clark and Watson 1995).

4.4 Parallel Translation

All selected emotion terms found agreement across cultures (Ekman and Friesen 1971, Ekman and Heider 1988, Tracy and Robins 2008). However, a perfect agreement across cultures and emotions is rare (Altarriba et al 2003 Soto et all 2005) thus a parallel translation of emotions in both Greek and English language using cross- language information has been chosen as a preferred method of achieving equivalence in meaning (Hambleton 1993).

4.5 Similar Meaning Identification Process

The aim was to identify the same or similar emotion term or duplicates ones in the item pool of the two selected sets of terms (Storm and Storm 1987, Tracy and Randles 2011). Thus, each term was examined (Appendix 3), common and similar terms were identified and were excluded by a bilingual translator to avoid language barriers with the assistance of the researcher (Santos, Black et al. 2014).

. Because of the similar meaning identification process, the 90 emotion items of the item pool have been reduced to 58 emotions. It is important to signify that the questionnaire of the 58 emotions did not include terms of emotions sharing the same meaning avoiding in such way the questionnaire to be tiring for the participants. In the meaning identification phase, the researcher's first language (Greek) was the target language for choosing the term. For example, sadness was considered similar term with the term melancholia. For that reason, melancholia has been excluded and only the term sadness has been used in the draft questionnaire; a term which is widely used.

4.6 Expert Review

Once the conceptual framework was established, eight purposely chosen experts in the areas of psychiatry, psychology, sociology, mathematics and research methods design and analysis were asked to review the draft 58-item NEScale (Appendix 4) to ensure it was reliable with the conceptual framework. Lynn (1986) advised a minimum of three experts to have enough control over the chance agreement on the content validity. Table 1 provides information on the eight respondents that were selected as content experts based on their professional background and experience.

Table 1. Sample and respondents of the content validity

No	Respondents	Industry/Academia	Years of Experience
1	Psychiatrist	Industry (public and private sector)	30
2	Psychiatrist	Industry (public and private sector)	18
3	Psychologist	Academia	18
3	Psychologist	Academia	10
4	Psychologist	Industry (private sector)	24
5	Sociology	Industry (public and private sector)	16
6	Mathematics	Industry (private sector)	20
7	Mathematics	Industry (public and private sector)	35
8	Research methods	Industry (private sector)	8

Each reviewer was asked to rate each item in terms of its relevance to the underlying construct. They used the Content Validity Index (CVI) which is a rate instrument using a 4-point Likert scale (1=not relevant, 2=somewhat relevant, 3=relevant, 4=very relevant) to avoid having a neutral midpoint (Polit and Beck 2006, Polit, Beck et al. 2007).

4.7 Using Qualitative Methods to Inform the Creation of the Item Pool

The creation of the item pool also utilized qualitative method to generate items for the NEScale development. The process included four open-ended questions to allow participants to respond with detailed or longer answers and to get them to open up about their feelings and thoughts (Reja, Manfreda et al. 2003).

1. "What is the most dominant feeling that you have at the moment? Can you provide an example? "

2. What is the most dominant thought that you have at the moment? Can you provide an example?
3. What types of things have made you upset in your society? Can you provide an example?
4. How did you react to those situations?

All questions were conducted in Greek to keep close to the core of the lived experience of the participants. Questions were translated into English prior to the analysis process by one English Literature professor and a Special Needs Physical Education Sports instructor with the assistance of the first author. The first translator, English Literature professor, has dual Greek and Canadian nationality, lives in Greece, with more than 20 years of experience in translation. The second translator, Special Needs Physical Education Sports instructor, has dual Greek and British nationality and lives in both countries. This process followed the rigorous word by word translation actions suggested by Brislin (1970) whereby accuracy and truthfulness were checked by back translation from English to Greek.

4.8 Testing the Instrument

After the emotion items questionnaire has been sufficiently reviewed and the four open questions have been decided to generate items for the scale and through them to add face validity for the design of the final questionnaire as well, a pretesting has been decided before the pilot testing of the instrument.

4.8.1 Pretesting with Cognitive Interviews

A pre-test procedure in paper trail has been conducted using a cognitive interview approach to encourage pretest respondents to think out loud about the context of the open-ended questions, the clarity of the instructions and how they process their questionnaire responses. Specifically, respondents were asked whether the four questions: 1) "What is the most dominant feeling that you have at the moment? Can you provide an example, 2) "What is the most dominant thought that you have at the moment? Can you provide an example, 3) What types of things have made you upset in your society? Can you provide an example, 4) How did you react to those situations? are friendly and interesting to increase response rate, and whether questions are easy to understand what they mean (Peat, Mellis et al. 2002). Moreover, pre-test verified that the 5-Likert rating response options on the questionnaire are easily understood and allowed to assess response latency that can be reported in the introduction of the pilot and full-scale administration information. There is generally no agreement regarding the best practices to evaluate a method in the development of a questionnaire (Beatty & Willis, 2007; Presser et al.,2004). However, this research utilised the Internal Validity of Questions (Figure 3) as a pretesting protocol to evaluate its method.

Figure 3 Internal Validity of Questions

(Source: Table 3.23 in Peat et al. 2002: 123)

√	ask the subjects for feedback to identify ambiguities and difficult questions
√	record the time taken to complete the questionnaire and decide whether it is reasonable
√	discard all unnecessary, difficult or ambiguous items

√	assess whether each question gives an adequate range of responses
√	establish that replies can be interpreted in terms of the information that is required
√	check that all questions are answered
√	re-word or re-scale any questions that are not answered as expected
√	shorten, revise and, if possible, pilot again.

There is no standard sample size, thus depending on the available resources a sample size of 20 participants was chosen as suitable for the chosen pretesting. The selection of the sample was based on the research target population. A sample of ten men (5 employed and 5 unemployed) and ten women (5 employed and 5 unemployed) selected purposefully through social network with a higher education, age over 20 years old from the area of Athens, in Greece.

Pre-testing the instrument prior to full-scale administration lend credibility to the research plan (backed up with evidence) and accountability to the research design. One of the focuses of the pre-test was to examine whether respondents understand the administration, organization, and content of concepts and ideas on the same way.

Chapter 5: Study 1- Pilot Testing

5.1 Introduction

Pilot testing gives you the opportunity to examine the feasibility and applicability of the method that is intended to be used in a larger scale study (Leon, Davis et al. 2011). Through pilot testing the researcher has the chance to reflect, pinpoint problem areas, what resources are necessary for the full study, recruitment approaches and revise properly the entire project from start to finish. However, even a well-designed pilot test cannot predict and ensure the success of the full study.

5.1 Pilot Testing Format

Pilot testing used web-based and paper- based format to collect data. In particular, this research has developed a university-affiliated research pilot study website, http://www.survey.bristol.ac.uk/, through Bristol Online Surveys services for having the possibility to reach a wide audience and achieve confidence that results are representative (Lefever S and Matthíasdóttir 2007).

The format of emotion questionnaire of 58 items were followed by 5 response categories for allowing the results to be fully distributed from the positive to the negative end of the range and are according to the following scoring values: I do not feel = 1, I feel rarely= 2, I feel sometimes= 3, I feel very often= 4, and I feel all the time= 5 (Appendix 4).

The chosen language of the self-administered questionnaire for the introductory material and instructions was simple and straightforward and appropriate for all population regardless educational background (Keszeia, Novaka et al. 2010).

5.3 Face Validity through Pilot Testing: Participants Contribution on Questionnaire's Design

Following the guidance of how to design and conduct interviews (Boyce and Neale 2006), this research used during the pilot testing procedure the previously research validated question form "Is there anything else you want to add?" which all participants were asked to complete, as a tool to add any new term, report any of the terms confused them on the self- report questionnaire, and report any structure problem with the questionnaire. This approach also assisted to develop a questionnaire that is more relevant to participants, assess the choice of format and minimize the risk to make them feel less motivated to complete it, but definitely cannot counteract all possible risks and problems (Adams and Cox 2008).

5.4 Population

The population of the Study 1 (Pilot testing) is Greek people living in Greece.

5.4.1 Participants' Inclusion Criteria

In this study, the population is defined as:

a) men and women with age over 20 years (the earliest someone could leave university would be age 20),

b) being employed or unemployed,

c) men and women with higher education (BA/BSc, MA/MSC, PhD or Postdoc)

5.4.1.1 Participants' Exclusion Criteria

Men and women with:

a) any long-term illness,

b) health problems or disability that, with or without the use of aids or medication, limits their daily activities,

c) self-employed (having their own business)

5.4.2 Recruitment Strategy

Participants were recruited from (a) social network, (b) the Hellenic Mental Health Web page "Katathlipsi", (http://www.katathlipsi.gr) and (c) the Hellenic financial newspaper "Xrima" (http://www.xrima-online.gr). Participants were recruited for this study using a two- stage sampling method.

As a first step, an information personal letter describing the research (Appendix 5) and a research brochure (Appendix 6) sent. This letter has been referred to Hellenic Mental Health Web page "Katathlipsi" and it explained the voluntary and confidential nature of research participation, identified the participant's selection criteria, and the University of Nottingham center telephone number. The specific Web page was selected due to the high number of visitors'; 7,281 visitors for the period between 1st June 2013 and 31 August 2013.

As a second step, the research brochure (Appendix 6) was posted in "Xrima" newspaper and on "Katathlipsi" website main offices notice boards and informing about research. The Hellenic financial newspaper "Xrima" has been chosen for the following

reasons: it has 193 sites linking in, the majority of its audience is people with higher education (a basic participant selection of this research) and its bounce rate is 72.00%.

5.4.3 Procedure

A 5-page paper-based format with the 58-items questionnaire and the four open ended questions was created (1-sided sheet) for the data collection. Additionally, a web-based survey was embedded at the Mental Health Web pages 'Katathlipsi' http://www.katathlipsi.gr (Appendix 4) in Greece. Information about describing the research study 1 (Appendix 7) and informing about its exploratory aim, Consent Form (Appendix 8), data protection statement, security and confidentiality issues directly addressed at the beginning of the online study /web screen and presented through paper-based data collection. Socio-demographic data requested (Appendix 9) in both paper-based and web-based formats.

5.4.4. Data Storage

Data was stored on a password protected university-affiliated research pilot study website, http://www.survey.bristol.ac.uk/ through Bristol Online Surveys services which was designed specifically for this study.

5.4.5 Ethical Considerations & Approval

This research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies

5.5 Study 1 Quantitative Results

5.5.1 Participants

Sample size was in accordance with recommendations for reliable estimation in factor analysis up to a total of 300 participants (Wilson Van Voorhis and Morgan 2007, Pett, Lackey et al. 2009).

5.5.2 Characteristics of the participants

The participants had a mean age of 38.6, with a standard deviation of 12.27 (N=276). The minimum age reported was 20 and the maximum was 81 years of age. To a large extent, the ages of the sample comply with a normal distribution; it is noted however that there appears to be an inordinate frequency of 38 to 39 years. Most of the sample were female (65%, N=179); the remaining 35% were male (N=97).

Most of the participants were residing in Athens (85%, N=234). The remaining 15% (N=42) lived outside of Athens. Table 2 presents the full results.

Table 2 Geographic location of participants.

		Frequency	Percent
Athens		234	84.8
Outside of Athens	Lesvos Island	16	5.8
	Crete Island	10	3.7
	Thessaloniki – Makedonia	7	2.5
	Chemnitz Germany	1	.4
	Chios Island	1	.4
	Corinth Peloponnese	1	.4

	Evia Island	1	.4
	Kozani – Makedonia	1	.4
	London England	1	.4
	Nicosia Cyprus	1	.4
	Rhodes Island	1	.4
	Boeotia	1	.4
	Total	276	100.0

Most of the participants were employed (61%, N=168). More than one in four, however, were unemployed (26%, N=72), and 13% (N=36) answered that their current employment status was "other" (Table 3).

Table 3 Employment status of participants.

	Frequency	Percent
Employed	168	60.9
Unemployed	72	26.1
Other	36	13.0
Total	276	100.0

Of those that answered "other", seventeen were pensioners (N=17); nine were students (N=9); two worked without pay to gain experience (N=2); two maintained their household (N=2); one was a freelancer (N=1), one was self-employed (N=1), two were employed part-time (N=2), one was in temporary work (N=1), and one had had their work agreement expire (N=1).

5.5.3 Period of Unemployment

Furthermore, the period of unemployment of N=77 respondents ranged from 3 months to 60 months (5 years), with a mean of 23.6 months (2 years) and a standard deviation of 13.82. It is noted that 77 participants answered this item, while only 72 had previously reported that they are unemployed. It is reasonable to suggest that some of those participants who replied “other” as an employment status, were or had recently been unemployed.

5.5.4 Educational Background

Most of the respondents had completed or were completing a Bachelor of Arts or a Bachelor of Science degree (81%, N=183). Thirty-five participants had received or were studying for a Master of Arts or Master of Science degree (16%), and seven participants had received or were in the process of studying for a Doctor of Philosophy degree. One participant had or pursuing a post-doctoral university degree.

Regarding their field of study, the participants gave numerous and diverse responses. The complete list of those responses is provided in Appendix 3.10. Specifically, many participants were studying to be Paramedics (N=39), as well as Business managers/administrators (N=25). Fifteen studied finance/economics (N=15), thirteen studied to become teachers (N=13), twelve studied Engineering (N=12), and ten studied Accounting (N=10). Marketing (N=9), Electronics/Computer engineering (N=6) and Health care (N=6) were the next most popular fields.

5.5.5 Family Status

Most participants were either married (46%, N=126) or single (44%, N=119). Twenty-five participants were divorced (9%), and three participants were widowed .

Of those married, the marriage period was reported by 77 participants, and it ranged from half a year to 54 years, with a mean of 16.9 years and a standard deviation of 11.9. It must be noted that nineteen (19) responses had to be excluded from the item of length of marriage, because they had not specified whether they were referring to years or to months. Divorces had been had for an average of 11.4 years (sd 7.7, range 1 to 26, N=17). For the length of divorce, three responses were excluded for the same reason as above. Mourning periods were reported to be 3 months, 6 months, 1 year, 2 years, or 7 years (N=5). It is noted that two more individuals replied here that they were widowed, while earlier only three had reported so. Again, it is reasonable to suggest that some of the currently single or married participants may have been widowed in the past.

Around half of the participants did not have children (52%, N=144). Participants who did had, on average, 1.78 children, with a range between 1 and 4. More specifically, 34% had 1 child (N=45), 55% had two children (N=72), and 11% had 3 to 4 children (N=15). Overall, there were 118 boys and 105 girls, aged between a few months and 52 years old, with a mean age of 16.3 years (standard deviation 10.84).

The offspring of the participants were mostly living at home (82%) and were not working (81%, N=110). Specifically, 74% were living at home and were not working (N=100), 8% were living at home and were working, 11% were not living at home and were working, and 7% were not living at home and were not working.

Nine percent suffered from some long-term illness, health problems or disability that, with or without the use of aids or medication, limited their daily activities (91%, N=250).

5.5.6 Sample Analysis

Starting with the characteristics of the sample, an analysis is provided of the emotions that are felt by the participants as they reported them. A factor analysis of the questionnaire is performed to ascertain whether emotions/items belong to separate subscales and whether some of those items need to be removed; this was followed by an internal consistency analysis of each item within its respective factor. An inferential analysis then is performed to assess the extent, if any, to which the characteristics of the sample influence the levels of emotions reported.

5.5.6.1 Emotions of the Participants

In the main section of the questionnaire, the participants were asked to report the degree to which they feel 58 distinct emotions or emotional states. For all items, the minimum value reported was 1 (“I do not feel it”) and the maximum value was 5 (“I feel it all the time”). As can be seen below, Love (4.11), Thoughtfulness (3.93), Care (3.86), Affection (3.74), Interest (3.72), Alertness (3.64), Anxiety (3.57), Determination (3.55), and Wonder (3.50) were the highest-ranking emotions. Those emotions words were marked higher on the average score (felt “very often” in the Likert-type emotions scale).

To examine whether the mean responses for the emotions-items were significantly different from the central value of three (3), one-sample t-tests were performed. These tests showed that 48 out of 58 items were significantly different from the value 3 (Table 4). The items that did not significantly differ from the central value were Play, Sadness, Anger, Relief, Serenity, Nervousness, Reverence, Expansiveness, Attraction, and Adoration ($p>.05$).

Table 4. Means and significant values for the 58 self-reported emotions.

	N	Mean	Std. Deviation	Sig. Value 3
1.Love	275	4.11	.863	
2.Thoughtfulness	276	3.93	.810	
3.Care	276	3.86	.997	
4.Affection	275	3.74	.881	
5.Interest	276	3.72	.811	≤.0005
6.Alertness	276	3.64	1.012	
7.Anxiety	274	3.57	1.040	
8.Determination	276	3.55	.946	
9.Wonder	275	3.50	.987	
10.Seeking	276	3.44	1.044	
11.Pride	276	3.42	.993	
12.Admiration	276	3.35	.892	
13.Confidence	276	3.31	.992	
14.Happiness	276	3.30	.809	
15.Irritation	275	3.29	.857	≤.0005
16.Contentment	276	3.28	.848	
17.Nostalgia	276	3.25	.962	
18.Tension	274	3.22	.926	
19.Enjoyment	274	3.21	.796	
20.Anguish	276	3.13	.961	.021

21.Expansiveness	274	3.11	1.037	.072
22.Anger	275	3.09	.984	.112
23.Attraction	276	3.08	.977	.176
24.Nervousness	275	3.07	1.012	.234
25.Play	274	3.05	.984	.426
26.Relief	276	3.04	.900	.462
27.Adoration	274	3.03	1.109	.663
28.Sadness	273	2.97	.949	.656
29.Reverence	276	2.92	1.114	.258
30.Serenity	274	2.90	.950	.087
31.Jubilation	276	2.81	.924	.001
32.Surprise	276	2.73	.961	
33.Rage	276	2.61	1.127	
34.Confusion	276	2.57	.914	
35.Sleepiness	274	2.56	1.099	
36.Triumph	276	2.55	1.072	≤.0005
37.Elation	276	2.51	1.007	
38.Despair	275	2.49	1.099	
39.Embarrassment	275	2.47	.905	
40.Fear	276	2.44	1.023	
41.Pity	276	2.40	1.055	
42.Pain	273	2.39	1.083	
43.Disgust	271	2.35	1.155	
44.Depression	276	2.34	1.218	
45.Frustration	276	2.33	1.078	≤.0005
46.Hopelessness	275	2.28	1.089	
47.Helplessness	276	2.22	1.038	
48.Panic	276	2.22	1.022	
49.Lust	276	2.21	1.050	
50.Contempt	275	2.20	1.050	

51.Remorse	274	2.19	.972
52.Jealousy	274	2.15	1.003
53Boredom	276	2.13	1.109
54.Ecstasy	276	2.10	1.024
55.Apathy	276	1.99	1.013
56.Terror	276	1.86	.943
57.Hatred	272	1.73	.917
58.Petulance	276	1.57	.844

5.5.6.2 Missing Scores

"Most emotion items had no missing values; twenty-four (24) out of the 58 emotion items had a small number of missing values ranging from 1 to 5 (.4% to 1.8%). Only one participant out of 276 (.4%) neglected to respond to the item: “Do you have any long-term illness, health problems or disability that, with or without the use of aids or medication, limits your daily activities?”. Three respondents (1.1%) failed to respond regarding their family status. Six participants out of 276 (2.2%) did not report whether they had children or not. Education was the only item in the questionnaire where there were significant missing values; fifty (50) individuals out of 276 failed to report their educational level."

5.5.6.3 Factor analysis -1st

A factor analysis was performed to examine the way in which the 58 items/emotions of the research can be grouped. Toward that aim, a principal components analysis was operationalized using Varimax rotation with Kaiser normalization. Furthermore, Kaiser-Meyer-Olkin sampling accuracy (KMO) and Bartlett's Test of Sphericity were used to evaluate the data. No restriction was imposed on the number of factors extracted. Table 5 presents the results for these tests. The value for the KMO test is over 0.7 and thus is accepted. Bartlett's test was statistically significant ($p \leq .0005$), indicating that that the data are adequate for analysis.

Table 5 KMO and Bartlett factor analysis tests.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.897
Bartlett's Test of Sphericity	Approximate Chi-Square	7601.826
	Degrees of Freedom (df)	1653
	Significance	.000

With respect to the factors that are extracted, and the percentage of the observed variance explained by the model, it was found that the 58 emotions are grouped into 13 separate variables, explaining 64.7% of the total variance explained. Table 6 presents the findings for the relevant eigenvalues.

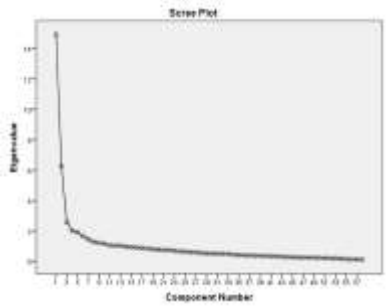
Table 6 Percentage of observed variance explained.

Factor	Initial Eigenvalues	Extraction Sums of Squared Loadings

	Total	% of Variance	Cumulative %	Total	% of Variance
1	14.941	25.761	25.761	14.941	25.761
2	6.256	10.786	36.547	6.256	10.786
3	2.576	4.442	40.989	2.576	4.442
4	2.017	3.478	44.467	2.017	3.478
5	1.909	3.292	47.759	1.909	3.292
6	1.647	2.840	50.599	1.647	2.840
7	1.451	2.502	53.101	1.451	2.502
8	1.265	2.181	55.281	1.265	2.181
9	1.224	2.111	57.392	1.224	2.111
10	1.148	1.980	59.372	1.148	1.980
11	1.056	1.820	61.193	1.056	1.820
12	1.030	1.776	62.969	1.030	1.776
13	1.015	1.749	64.718	1.015	1.749
14	.963	1.660	66.378		

The Scree plot below (Figure 7) shows that the first three variables do stand out from the remaining variables. After the 13th factor, the data assume a largely linear progression.

Figure 7 Scree-plot for the resulting components of the factor analysis.



Based on Scree plot analysis, the point where the slope of the curve is clearly leveling off (the "elbow), we concluded that there are only three factors and the rest are not significant. A forced three factor analysis will show which emotions belong to which factor and then we can name the groups accordingly.

5.5.6.4 Forced 3 Factors Analysis

A factor analysis was performed to examine the way in which the 58 items/emotions of the research can be grouped. Toward that aim, a principal components analysis was operationalized using Varimax rotation with Kaiser normalization. The number of components to be extracted were set to 3 (forced extraction). This action was informed by the Scree plot, which indicates that 3 major factors stand out (see Figure 8). Furthermore, Kaiser-Meyer-Olkin sampling accuracy (KMO) and Bartlett's Test of Sphericity were used to evaluate the data. Table 13 presents the results for these tests. The value for the KMO test is over 0.7 and thus is accepted. Bartlett's test was statistically significant ($p \leq .0005$), indicating that the data are adequate for analysis.

Table 13. KMO and Bartlett factor analysis tests.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.897
Bartlett's Test of Sphericity	Approximate Chi-Square	7601.826
	Degrees of Freedom (df)	1653
	Significance	.000

With respect to the three predefined factors that were extracted, these explained 41% of the observed variance. Table 14 presents the findings for the relevant eigenvalues.

Table 14 Percentage of observed variance explained.

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings	
	Total	% of Variance	Cumulative %	Total	% of Variance
1	14.941	25.761	25.761	14.941	25.761
2	6.256	10.786	36.547	6.256	10.786
3	2.576	4.442	40.989	2.576	4.442
4	2.017	3.478	44.467		
5	1.909	3.292	47.759		

The Scree plot below indicates that the first three variables stand out from the remaining variables. After the 4th factor, the data tends to assume a linear progression.

Figure 8 Scree Plot

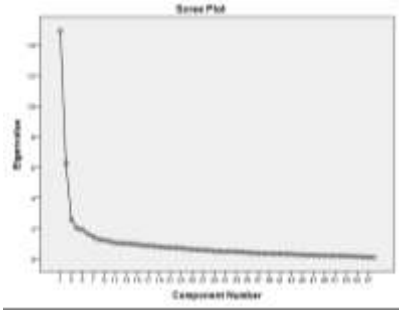


Figure 3.8.1. Scree-plot for the resulting components of the factor analysis.

The 3 factors extracted from the principal component analysis are presented in Table 15. The table includes the items per factor, the factor loading for each item as well as the item analysis via Cronbach reliability. Thus, Factor 1 is comprised of twenty-seven items, as seen in the table below. Those items together may loosely be described as "Negative-oriented" emotions. Twenty-three out of the 27 items had a negative meaning; the four items of boredom, wonder, nostalgia and thoughtfulness are the exceptions in

that each may carry a neutral or a positive meaning. The Cronbach reliability for those 27 items was very high and acceptable at α=.94.

Factor 2 is comprised of twenty-three items. These items may collectively be described as "Positive-oriented" emotions. Only one item out of the 23, namely pride, is of an ambiguous nature, that can be construed as either positive or negative. The Cronbach reliability for these 23 self-reported emotions was very high and acceptable at α=.91. Factor 3 is comprised of eight items, that can be named as "Trauma and Stress related" emotions. The 8 items have a moderate to high internal consistency at an acceptable level (α=.7).

Table 15. Extracted factors, items, factor loadings and reliability.

Emotions Factors					
1. NEGATIVE-ORIENTED		2. POSITIVE-ORIENTED		3. "TRAUMA AND STRESS RELATED"	
Emotion	Loading	Emotion	Loading	Emotion	Loading
Sadness	.624	Happiness	.624	Lust	.586
Panic	.687	Play	.465	Jealousy	.389
Fear	.674	Enjoyment	.593	Ecstasy	.477
Anger	.624	Interest	.614	Petulance	.503
Rage	.605	Seeking	.457	Apathy	.566
Disgust	.482	Care	.690	Sleepiness	.423
Contempt	.403	Love	.622	Hatred	.519
Irritation	.637	Relief	.670	Elation	.483
Nostalgia	.525	Surprise	.441		
Anguish	.683	Serenity	.525		
Despair	.710	Alertness	.480		
Remorse	.474	Admiration	.647		
Boredom	.420	Reverence	.471		

Embarrassment	.432	Affection	.613
Anxiety	.662	Expansiveness	.595
Nervousness	.651	Confidence	.589
Frustration	.496	Determination	.608
Tension	.534	Pride	.510
Helplessness	.628	Triumph	.592
Hopelessness	.715	Contentment	.674
Pain	.671	Attraction	.480
Thoughtfulness	.383	Jubilation	.666
Depression	.651	Adoration	.614
Pity	.539		
Terror	.659		
Wonder	.372		
Confusion	.625		

The items that belonged to each of the three factors had acceptable levels of reliability and none were excluded from the analysis. It is important to note that when the same principal components analysis was performed with the α forced single factor extraction, only 25.8% of the total variance observed was explained. Even when the items that had low factor loadings (≤.3) were removed, the percentage of the observed variance explained remained low at 29.9%.

5.5.7 Inferential Analysis

For the inferential analysis, the items belonging to the “Positive”, “Negative” and “Trauma and Stress related” dimensions of emotions extracted via factor analysis were

computed into single variables/dimensions. Table 16 presents the mean values for the emotion dimensions in order of magnitude.

Table 16. Mean values for the resulting three (3) dimensions.

	N	Mean
Positive-oriented emotions	264	3.25
Negative-oriented emotions	257	2.70
"Trauma and Stress related" emotions	268	2.09

Table 17 Reliability statistics for the 3 factors.

	Alpha (α)	Number of Items
Negative-Oriented Emotions	.937	27
Positive-Oriented Emotions	.913	23
"Trauma and Stress related" Emotions	.697	8

A number of characteristics of the sample were examined as to their effect on the self-reported emotion dimensions of the participants. Towards that aim, gender, family status, having children or not, work status and location of residence were operationalized as independent variables; the three dimensions of Negative-oriented, Positive-oriented and Trauma and stress-related emotions, comprised the dependent variables. Independent samples t-test were performed wherever the independent variable had two conditions (gender, having children or not, location); analyses of variance (ANOVA) were used when the independent variable had more than two conditions (family status, work status).

The independent samples t-tests analysis revealed that gender significantly differentiated the responses to the dimension of Negative-oriented emotions (*t=-3.22, df=215.25, p=.001*). As can be seen in Table 18, women scored higher than men in the Negative-oriented emotions dimension.

Table 18. Independent samples t-test of gender with Negative-oriented emotions.

	t-test for Equality of Means			Mean by Gender	
	T	df	Significance p	Male	Female
Negative-Oriented Emotions	-3.218	215.25	.001	2.54	2.79

The ANOVA tests that were performed showed that family status had a significant effect on the "Trauma and Stress related" emotions dimension (*F=5.16, df=3, p=.002*). Table 19 presents this statistically significant finding. A Bonferroni post hoc test that was performed indicated that those who were single scored higher than everyone else; those widowed scored lower that everyone else. The ones who were divorced scored higher on the intense/extreme emotion dimension than the married and the widowed; and the married scored higher than the widowed.

Table 19. Analysis of variance of family status with Trauma and Stress-related emotions

	F	df	Significance p
"Trauma and Stress related" Emotions	2.68	3	.047

When independent samples t-tests were used to examine the effect of having children or not on the emotion dimensions, the "Trauma and Stress related" emotion dimension was again significantly affected (*t=-2.65, df=251.31, p=.008*). Table 20

presents the result along with the means corresponding to the "yes and no's" of having children. As can be seen below, those who did not have children scored higher on this dimension than those that had children.

Table 20. Independent samples t-test of having children with "Trauma and Stress related" emotions.

	t-test for Equality of Means			Mean by "Do you have children?"	
	T	df	Significance p	Yes	No
"Trauma and Stress related" Emotions	-2.29	256.12	.023	2.01	2.17

Regarding work status, the ANOVA tests performed showed that none of the three emotion dimensions were significantly affected by whether the participant worked or not. Therefore, work status was not an important factor in influencing self-reported feelings.

For the final inferential analysis, the location or the place of residence of the participants was re-coded into a new, dichotomous variable, which included two groups, those that resided in Athens and those that lived outside of Athens. A series of independent samples t-tests found that location had an effect on the "Enjoyment and Interaction" emotion dimension (*t=-1.97, df=272, p=.05*). In the following page, Table 21 presents this finding. As can be seen below, participants who resided in Athens scored significantly higher in the dimension of "Trauma and Stress related" emotions.

Table 21. Independent samples t-test of location with "Intense" emotions.

	t-test for Equality of Means			Mean by Location	
	T	df	Significance p	Athens	Not Athens
"Trauma and Stress related" Emotions	-2.07	53.07	.043	2.06	2.27

Discussion

The factor analysis that was performed extracted the 58 emotion items into three main components or dimensions that explained 41% of the total variance observed. These dimensions were "Negative-oriented", "Positive-oriented "and "Trauma and Stress related" emotions. The mean responses to these dimensions were then tested against the sample characteristics to assess the effects that the latter may have on the former. Gender had a significant effect on the negative-oriented emotion dimension, where women scored higher than men.

Family status had a significant effect on "Trauma and Stress related" emotions, where singles scored the highest and the widowed scored the lowest. It should be emphasized however that the widowers in this study were only three, therefore this result may not be generalizable to larger populations. The attribute of being a parent also had a significant effect on "Trauma and Stress related" related emotions; those who did not have children scored higher than those that had children. Work status did not significantly affect any of the three emotion dimensions.

Finally, the location of residence was found to significantly affect the same dimension of "Trauma and Stress related" emotions. Those who resided in Athens scored significantly higher than those who resided outside of Athens. Given that mean responses to the "Trauma and Stress related" emotions dimension was found to be affected by family status, being a parent or not, and by location of residence, it seems that this factor may be multi-causal. However, further study should focus on a replication of the present 3-factor analysis; a confirmation of the structure of the "Negative-oriented", "Positive-oriented" and "Trauma and Stress related" emotion dimensions; and a further

examination of the influence of gender on “Negative-oriented” feelings and the effect of three personal characteristics on the “Trauma and Stress related” emotions.

Conclusion

Conclusions based on data from a large population (276 respondents), and in terms of factor structure, inter-correlation, homogeneity, internal consistency and construct validity to better understand apparent similarities and differences in the concept of emotions and if there is any different term that we need to add on the scale or omit.

The technical aspects of the interest measurement necessitate a homogeneous criterion group. The focus is on the notable technical aspect’s differences of the NEScale scale such as, sex, family status and location and the goal are to gain understanding for the differences among groups. Results suggested:

1. Gender significantly differentiated the responses to the dimension of Negative-oriented emotions. **Women scored higher** than men in the Negative-oriented emotions dimension. A good justification might be that most of the sample were female (65%, N=179); the remaining 35% were male (N=97).
2. Participants who resided in **Athens scored significantly higher** in the dimension of Trauma and Stress emotions. However, most of the sample were residing in Athens (85%, N=234) and the remaining 15% (N=42) lived outside of Athens thus further research outside Athens is suggested.

3. **Single scored higher** than everyone else.
4. **Divorced scored higher** on the "Trauma and Stress related" emotion dimension than the married.
5. Those who **did not have children scored higher** on this dimension than those that had children.
6. **None** of the three emotion dimensions were significantly affected by **whether the participant worked or not**. Furthermore, the period of unemployment of N=77 respondents ranged from 3 months to 60 months (5 years). It is noted that 77 participants answered this item, while only 72 had previously reported that they are unemployed. It is reasonable to suggest that some of those who replied "other" as an employment status, were or had recently been unemployed.

The exploratory factor analysis, item analysis and internal consistency of the 1st study (scale development) revealed three factors: "Positive-oriented", "Negative-oriented", and "Trauma and Stress-related" emotions. The item reduction process resulted in a 31-item questionnaire; 22 items were omitted and after the reduction process, 5 terms were changed according to participants' suggestions. The final version consists of 31-item instrument measure instead of 58 items. The items on the NEScale scale revealed factor loading 0.5. and appears to be suitable to the study purpose and content area. Reliability processes indicated that the NEScale is reliable: Cronbach's alpha 0.94 for the global SQ and between 0.80-0.91 for the three subscales.

5.8 Study 1- Qualitative Results

5.8.1 Theme Analysis

In line with the methodology of the study, it was important to let the categories and meanings to naturally emerge from the data, rather than being imposed top-down. For this reason, thematic analysis was used to systematically search for patterns within the data and to attempt to capture its qualitative richness (Aronson 1995, Braun and Clarke 2006). This approach provided a flexible research tool without restraining the rich, detailed and complex description of data (Braun and Clarke 2006). The inductive analytic process led to "codes," words and phrases that served as labels for sections of data, which helped develop deeper appreciation of the content (Boyatzis 1998, Roulston 2001).

The stages of analysis were:

1. Data Corpus Familiarisation: Transcripts were checked four times .
2. Generating initial codes: Data were summed up at a semantic level and then the entire data set was coded.
3. Revision of codes: Revised codes were created through comparison with the raw data in order to reflect all of the basic codes within it. A tree data structure (collection of nodes) was composed with the second author to test the reliability of codes.
4. Developing the themes: All nodes were organised under a theme to which they related and the emerging themes became the categories for analysis (Fereday

and Muir-Cochrane 2006). Nodes were grouped together under a sub-theme, and subthemes were grouped together under a theme.

5. Theme sophistication: Links and connections between themes, as well as the ordering of themes into levels were examined with detail. Supervisor commented on, and questioned, the connection between themes and identifying the themes as a subtheme.
6. Reanalysis of the data set: The entire dataset was reanalysed into the coding framework that had been determined at the theme sophistication stage. In order to ensure that raw data had not been lost (Braun and Clarke 2006) during the development of the coding framework all transcripts were analysed again. Differences with the themes, subthemes, and nodes, along with the anonymised coded transcripts were discussed with the 2nd author and minor changes to the names of the themes made for legitimating coded themes.
7. Corroborating coded themes: The interaction of text, codes, and themes were connected into a descriptive framework consistent with the text.

In summary, from this process of analysis, codes were written with reference to Boyatzis (1998) and identified (1) the code name, (2) the definition of what the theme concerns, and (3) a description of how to know when the theme occurs. The coding process entailed reading each transcript line by line to identify the concepts found in the data. Coding was completed when no new concepts were forthcoming from this process. Codes were compared within each transcript and across all transcripts, eventually leading to the construction of sub-themes. Finally, the name, definition and subsequent data of

each sub-theme were re-examined for the final creation of the themes. This stage of re-contextualization focused more closely upon the core meaning of each theme. These themes brought together the various fragments of ideas and experiences within the data which were often meaningless when viewed alone (Leininger 1985).

5.8.2 Dominant Feelings and Thoughts of Participants

5.2.1 Change the country of residence

Participants described escape as a distinguishable pattern of solution to the current socio-economic situation in Greece and to the very problems it creates. Even if relocation seems a huge step it is not a problem in the end **"I feel that things are simpler in action rather in thought. Just the thought to change the country of residence sounds like a huge mountain but to do it actually is easier and more pleasant in the end" (2F27AUS).** Many will wonder if leaving is a realistic solution to financial crisis of a country but following the most acute phase of the Greek economic and financial crisis clearly the individual's basic instinct to survive is the most powerful drive **''I am divided over whether it is worth to leave my country and live away from anyone for a 'normal salary' or to reconciled with the few that my country offers me and live share everything even my own life with the people I love '' (276F32OAUS).** Spouse's steady job seems to reduce the stress and the worries of the family however it seems that cannot stop the feeling of threat when continuous new set of challenges and strains appear **''I want to leave might find something better on abroad, but I am married with civil servant the only thing that keeps me''(117F29AUM)**

Participants expressed the desire to "**Escape" (22F39AEMCH &245F74APMCH)**; they used exactly that term and even if we do not have a full description of that feeling cannot but be perceived, alongside the perception that are captured. The social and economic problems in Greece brought in light the problems and opportunities of relocation. After more than 5 years of struggle many participants consider change their residence for a better present and future. Undoubtedly, through the history problems always have created migrants who move from one place to another to find work or better living conditions. On the other hand, the participant's feeling of escape is giving us a picture of attack-escape from the social and financial unrest in their homeland rather than a wish to change home state.

5.8.2.2 Waiting for something better to happen + Potential for Growth

On the feeling of positive thinking few participants also reported different ways of how they perceive negative experiences. They wrote terms such as ''waiting'', ''patience'', ''relief'' in how they try to make the best of bad situations. There is no magic fix however some participants seem to follow a behaviour in a positive light **''All will be fine if you have patience. I might be unemployed for a long time, but something might happen and change the situation.'' (3F27AUS),** and with a hope that some things will change, and Greece will be again a country in a happy state of having enough jobs for all who want them **''It is the anticipation, waiting for something better, reducing unemployment, more jobs, more smiles and more happy people'' (272F42AEMCH).** Interestingly, the task of creating a good life for all members of society seems to be bond with the positive attitude and the sense of common good, what

is shared and beneficial for all or most members of a given community, is similar with putting your best foot forward on the game.

But the situation can feel more stressful after the dust has settled and reveal financial hardship along with high unemployment rate for more than five years. Few of the participants established a positive-negative situation and it was more important for them to feel good in the end of the day and pay attention on family relationships and issues **"Relief that this day ends fine and everything is fine at home with the children" (19F37AEDCH).** Family security acts as a positive reinforcement in a non-favourable environment, so that participants can keep up and deal with the stress. Both positive and negative reinforcements cause a strengthen behaviour. Nietzche, author of The Genealogy of Morality, talks about humankind's unique ability to make promises, in other words, to have the ability to plan for the future. To make promises when you face long-term hardship requires us to have more than confidence in fulfilling that promise. With every word, there is always an opposing and supporting force. In this case, the supporting opposing force to confidence is determination and the opposing force is impatience. Many of the participants focused on the future not on the present, reported impatience and determination for the future and they were waiting the best outcome of their efforts. They were waiting with optimism their efforts to be paid off **"Anticipation, tranquility, pride for the accomplishment of my purpose" (121F37AUDC).** Patience is what they build in their selves and adapt to different situations **"Longing for something better" (216M33AES & 273F62APMCH)** with a trust on change **"Everything will be done for the possible best since you trust" (214F48AEMCH)**. Many participants despite the uncertain present they live, make plans for the future. They

feel more determined rather than frustrated for their future self. They have trust on them and their abilities and they are sure that they will succeed; this is why impatience is used to express that they are dissatisfied with the present and cannot wait the change of their current situation.

Participants mentioned a desire to not abandon the struggle for a better present and future **"We should fight and not rest. It is not only economical the obsolescence it is moral obsolescence first" (120F26AUS)**. In the same way, belief and action are accompanied by religious faith; religious faith and trust that everything will turn out right. It is important to mention that participants' feeling of faith and trust addresses the question whether there is a passive trust with no active function or a religious faith gives them the power to change the obstacles of their current situation **"Faith that everything is going to work out" (1F47AUS)**. A lot will argue that religious belief and faith are two separate things. Indeed, religious faith is directed to religious things and in particular to a transcendent God or gods. However, we cannot reject that everyone has their 'gods' and in the wider sense of realities and ideas, religious faith symbolically is what people value highly such as, wealth, security, family, and principles.

5.8.2.3 Things get worse and wrong

Participants were feeling disappointed from the chaos and disorder **"All goes wrong" (194F31AEM)** and **"Things in Greece are in wrong way" (215F34AES)** they experience the last years. A nice question on that is how participants can be all right when everything is all wrong? The difference now is more obvious between short and long-term economic hardship and the associated emotions and feelings according to

participants are **"Pressure and stress" (4F34AUS)**. A disappointment for their selves is also present since any change of the current socio-economic situation by the governments is wrong, negative steady flow and gets worse **"We go from the bad to the worse" (55M43AUS).** The harmful effects of socioeconomic deprivation on mental health are now documented since participants' exposure to stressors are acute and chronic and inadvertently set their self-up for frustration and even despair.

Many participants were specific on what makes them feel stress. Household obligations, house loan, and family's future are their main concerns. They feel unable to contribute and help with the basic needs of the family household **"Pay bills and life insurances (204F38AEMCH)"** and "**What on earth will happen with the house loan if I got fired?" (200F51AEM).** They struggle, and they feel they bear an additional burden on their shoulders **"Stress i.e. how I will save money for my family's needs (bills, children's studies)" (193F43AEMCH)** since they cannot meet the successfully fulfilling parental role obligations. The persistent failure to meet a child's basic need such as food can involve repetitive and prolonged chain of negative thoughts which is a key aspect of depression. The difficulties that pose their financial situation and the worsening of the socio-economic situation is evidence of that they are getting trapped which entails an important risk factor for the onset of depression. Because children are dependent to others, income poverty force parents to face an uncertain future **"Agony for my children's future" (217M70APMCH)** which is a direct threat to the basic needs. A threat to the satisfaction of basic needs due to situational factors arises a concern about the defenses that are prompted by it and whether they belong to a bright or dark side of their behaviour.

Future raises participants' anxiety **"Thoughtfulness and anxiety about tomorrow (future)" (165F45AES)**, agony and feel fear for what next will happen to them **"Fear for tomorrow" (199F35AEMCH)**. Future is a synonym of fear. Fear and anxiety as emotional disturbances may be an important factor in the maintenance of excessive thoughtfulness, stress and worry **"Stress form various problems due to my unemployment" (118F35AUS)**, and disappointment **"I feel bitterly, I feel disappointment working conditions became worse and cut the wages thus my lifestyle changed as well" (181F48AEMCH)**. At the societal level, safety net programs do not exist, and participants are especially vulnerable during socio-political drastic changes in favour of covering the Greek debt in Europe and not in favour of population programs that give them the resources to protect themselves. At the moment participants feel abandoned from the governments **"No politician takes us under consideration, for example everything that happen now" (164F49AEMCH),** this particular interface with no jobs, cutting of wages and a fruitless promise of an unsecure future with debts.

The extent of emotional exhaustion is higher as the years passed without change and as a result several participants complained tiredness every single day **"Tired, I just finished my work and I returned home" (142F44AEMCH)**. Consequently, long hours of work and low salary results in tiredness **"Feeling of tiredness after a difficult day" (18F38OAUMCH)** which is a physical symptom that reflects the financial stress. The economic downturn as an external stressor leads to emotional soreness and tiredness **"Emotional tiredness" (25F32AES)**, and economic costs synthesize their day. Physical and emotional problems are common after difficult financial situation and they tend to increase over time if there is no solution. Sometimes finding the good in a difficult

situation can be challenging but it seems that gratitude **"I am pleased of what I have in life" (51F49AMCH)** helps participants to find the homeostasis **"Peace and happiness for the beautiful day today" (101F60AEMCH)** in their everyday struggle. Family, job and health **"I feel satisfied with what I have; family, job, health" (178F50AEMCH)** are the things that feel thankful. On the other hand, many will argue that self-fulfilment should be more than just having a job **"I feel joy and calmness that I am healthy, and I work" (180F50AEMCH**) and family. The bottom line is that the vagueness of the socio-economic and politic area frustrates the fulfilment and it seems that only an extra income affords additional luxury in motivation, goal setting and career decisions as well as self-fulfilment. However, **"Tranquillity" (13F53AUMCH)** is the most used term among participants and should draw our attention as a quality to adapt to environmental jolts. They acknowledge what they already have and seem that gratitude promotes tranquillity, joy, calmness and boost up their trust on their self.

5.8.2.4 Useless Inactivity

Medical research repeatedly pinpoints that hidden dangers of life's struggles cause at the beginning lethargy and lead to gradual deterioration of well-being. Many participants reflected the feeling of struggling to cope with everyday life and the feeling of dysfunction on how they feel, think and behave. **"Useless, bound hand and foot and gagged. I feel that I cannot decide anything about my life anymore and that I cannot make plans and dreams, nor even for the simple everyday things" (15F31OAUS)** demonstrates how it is to feel trapped in intolerable situation that you cannot escape.

Feeling trapped and defeated are experiences common to people who face anxiety and depression. Feeling helpless, with little control over things results in a dangerous feeling of vanity **"Vanity…. I feel it very often" (2F28OAUS)** in which person stops doing things to improve his situation and observe the others in a helpless way **"Disappointment, grief, frustration, I have the feeling that my life get to the end, I am just an observer of the others, I cannot help myself anymore, feeling of vanity" (79F37OAUMCH)**. Their apathetic **(73F39AES)** disappointment and sadness and descriptions maybe debated but no matter what or how the world for them now is an executive dysfunction with **"Dead end" (20F28AUS)**. Learned helplessness in everyday life through the feeling **"Lack of interest. I feel that I repeat myself, that nothing exciting is happening" (14F35AES),** and **"I feel weak" (16F37OAUMCH)**, insecurity, without choice and risk of daily life that common people experience reminds us the life without freedom of slaves. Limits to freedom that causes **"Stagnation and apathy" (123F35AUS)**, and **"Confusion and sleepiness" (91M38AEM)**, distress and problems with functioning is a useful mirror to see how mental health of participants is declined. It represents a major area of concern and debate for the culture-bound syndrome that we may call it in this circumstance society-bound syndrome since Greeks experience a collection of signs and symptoms that is restricted to a limited number of societies by reason of certain psychosocial features. Due to that psychosocial features, vanity, lack of interest, weakness, boredom, apathy, indifference, sleepiness, and confusion entail much of their emotional and mental pressure. Lack of energy, motivation, drowsiness and apathy can be considered as life-changes consequences that

impact participants' life and create not only future concerns but also stagnation on their present.

5.8.3. What upsets me from society

The focus of this question is to examine the social impact of the present socio-economic and political situation in Greece. A sample of 242 participants described how they feel upset about society. This theme consisted of five subthemes: (a) education and health; (b) unemployment and economic situation; (c) political system; (d) social depreciation- stepping on corpses; (e) non-self-criticism and fascism. All the nodes within these subthemes are described thoroughly below. In this theme, participants described the first two subthemes as the backbone of society which acts as the troubling cases that show us how a society collapses by crises. The content of the last three themes describe why specific societal characteristics contribute most to social meltdown.

5.8.3.1 The Poor Path for a Better Tomorrow

5.8.3.1.2 Education and Health

Participants described that education has a substantive role for a growth mind-set where we can value past mistakes and avoid situations that may cause harm. The repetition of similar historical events reflects that significant mistakes of the past have not been highlighted and thus cannot be enacted to help society to prosper. **"Repeated historical mistakes" (34M45AUD).** Participants consider education as the acquisition of knowledge, skills, values and its lack reflect a social impairment **"Education-cultivation. Lack of values – worthlessness" (22F39AEMCH & 23F38OAEDCH)**.

The education purpose of ancient Greece was to cultivate the individual with ideal virtues. The present Greek education system also tries to focus on the practice and development of "muscle" made up the mind, imagination and character, rather than getting so called "useful information gaining" as Freeman (2013) wrote in his book about the concepts of learning in Greek education. Under that perspective, when participants mention that **"Education does not exist" (163F28AES)** and they feel disappointed **Stupidity as a result of half-learning" (84M60APMCH)** clearly they do not underestimate the individuals as human beings but their ability and knowledge first to safeguard the cultural domains of history and second to understand what it was like and how it came to be that way (e.g. historical mistakes). Greece's economic crisis has disappeared from the minds of many but for the participants the feeling of Genocide, the mass extermination of a whole group, illustrates their feeling of humiliation and inferiority "**Genocide, the system of education, pushing our children in their lack of knowledge and their 'soul' in another country. Unemployment that creates people and society of two speeds" (109F73APDCH)**.

One of the consequences of economic crisis is the lower quality of education **"Low education provisions and low potentials of work orientation" (173M20AUS)** and the lack of available resources to help the development of financially responsible and financially independent citizens or even to have financial ability to meet housing. This makes it harder to find out what works best for you to face this crisis **"The chaotic situation that exists in the country" (66F24AES)**, and cope effectively and learn or be informed through social protection to several healthy ways to cope and get through to the other side.

An organized health system plays an important role in the daily lives of participants. The present economic situation cannot finance a health system that people can afford to pay additional health care costs, trust its health services and a health care that they can rely on. Effects of financial crisis on the healthcare system are also present and participants feel unprotected as health service cannot be delivered as things stand **"Education, health, system of education and health collapses" (115F24AUS).** The three main sources of work, health and pension for the elder ones, that enable you as individual to be self-reliant collapse. It is one of the main responsibilities of each citizen to be free and safe but in this case, government fears the people of less liberty and people view government as tyranny. Conformity and consistency in a system that does not cut the cost of country's debt but rather cuts the jobs, wages, pensions and free access to health settings the least that reaches is to prevent individuals becoming independent.

5.8.3.1.3 Unemployment and economic situation

The concern of today is **"Unemployment" (9F38AUS)** regardless age. Unemployment's reality reveals a cruel changing of the emotional and social face of unemployment. Participants described it as a journey beyond the three seas; to feel hurt, helpless and irritated. As the unemployment rate increases more people are sinking in depression ending in despair, when all the actions they take turn to be pointless **"Unemployment, despair of the unemployed and the heavy taxes" (142F44AEMCH)**, and **"Unemployment more friends and acquaintances in depression" (14F35AES).**

The synonym of unemployment is not giving opportunities to people **"Unemployment and not giving opportunity to people" (238M330AUS)**. Giving work is not the only opportunity that people are deprived of. Lack of money introduce many complications in daily life and taxes, violence by the state and unfair and partial legislations create a dead end for the people who start feeling that there is nothing they can do to help themselves and the others **"The Unemployment concern of today regardless age. I feel helpless to help people in need that once had home and now they live in streets. It is a tragic to see people live in that way and there is nothing you can do, or I am the one that I cannot do anything probably. I feel hurt helpless and very irritated with all of them that decide wrongly for all of us" (3F27AUS)**.

There is no official data-collection strategy on homelessness in Greece and a pilot at national level led by the Greek Ministry of Labour funded by European Social Fund just started in 2017. Cynically, Greek government confirms in that way that homeless people are not officially recognised as a social group. Participants on the other experience a repeated exposure to traumatic images of homelessness mostly in the wider metropolitan area of Athens (9.100 homeless were estimated in 2013 as defined by Eurostat), poverty **"Unemployment and see people looking in the garbage" (93F32AEMCH),** and suicide **"Unemployment and suicides" (141F48AEMCH)**.

Repeated exposure to direct trauma results in mental and health physical effects and unfortunately there is little attention on the potential impact on individuals especially on children of living under conditions of chronic community deprivation. Participants testimony every day depression of people **"Financial crisis, poverty, unemployment and poor people" (37F22AUS)**, despair **"Unemployment, despair of the unemployed**

and the heavy taxes" (142F44AEMCH). The alarming rate of unemployment (>20%), the suicide increased rate of 7.8% since 2009, compared with 1.6% before the crisis and the general bad economic situation placing the citizens in a risk of poverty and social exclusion (35.7% in 2015) did not result in a social assistance programme or major organisation changes. On the contrary heavy taxes and unemployment head for Great Depression effects and probably stronger. The increase in the prices of essential goods, the increase of household bills such as energy and heavy taxation for house ownership regardless of your income, establish a feeling of social injustice for the participants **"Unemployment and social injustice. It is unfair for people not to have the necessary for their survival" (192M38AEM)** and **"Things are more difficult they need to be more lenient in the unemployed whether they have houses or not" (228F48OASCH)**. The unfair treatment of authorities in both individual and collective impressions of fairness are mostly the root causes of violent conflict in developing countries and groups might react more negatively to injustice than do individuals.

Unemployment, heavy taxes and lack of money draw the big picture of the injustice financial hardship in Greece. People do not have many choices as unemployment or long hours of work with low pay **"Cut of wages and pensions – I work 9 years, I get 680euros every 3 months and I work 10 hours and 12 hours not 8 hours" (274F27AES)** are the two options for entering the labour market. Greece receives a mandate from European memorandum to cut wages and pensions disregarding the effects of a very low standard of living. Job and financial security issues give their place now to despair and fear of people's losing their house **"The danger of taking my house" (10F40AEDCH)** to pay confiscation orders. Lack of hope, insecure tomorrow

“Lack of hope, dreams, insecure tomorrow” (89F38AEMCH) and feeling of injustice make more difficult for the participants to confront and deal with this ongoing crisis. Societal stresses such as injustice and poverty would be precisely what Spitzer's (1975) "Toward a Marxian Theory of Deviance calls it: a recipe for social dynamite.

Cynics will think that Greek hardship is a problem with big words but taking into consideration participants’ accounts about homeless people, malnourished children and people looking in garbage for food ensure sadly that its cruel face exists. Vital steps or dynamic changes that will enable the country to recover do not exist **“Crisis and the apathy of the responsible to do something and change it” (117F29AUM)** and **“The economic situation of the country and the recovery is not coming” (51F49AEMCH)** and on the contrary financial crisis in Greece is turning into a dour story of apathy and utter financial crap **“The economic crap of all” (206M53AES)** and **“The financial crap of the country” (205M21AES)** for all according to participants.

5.8.3.1.5 Social depreciation

Participants feel repulsive shocked from the threat-effect of financial crisis in their country and life. Everything is happening for the profit and hypocrisy **“Indifference for the other people fake hypocrisy (28F37OAEDCH)”** lead on how people interact with each other now. Society is going through a great change **“Everything! Everything is happening for the profit and only one law exists ‘your death my life’ it is inconceivable people to die from hunger in 2014 just because some others do not care, or they do not have the brain to understand. Let's not mention the ‘popularity " of fascists monkey people appeared as Saints and offer**

"love " giving hatred" (14F31OAUS) and shameless scoundrel "**All do anything to survive -stepping on corpses" (32F38AUS)** for being its part; it is part of being a social being under those circumstances. Unless the research's qualitative data is unrepresentative, the financial crisis force its citizens to react in deviant social action. The excessive regulation and the corruption of some financial institutions give birth to antisociality. Greece now might be the wrong place for the right people. Although it is difficult to define a single definition of anti-social behaviour the Crime and Disorder Act 1998 defines anti-social behaviour as acting in a manner that has "caused or was likely to cause harassment, alarm or distress to one or more persons".

Exploiting others in harmful ways is also present in the government which oblige citizens through taxes to their professional (A self-employed must pay 42% of his income to taxes) and social making- decisions (relocation to villages since they couldn't afford the rent in the city). Incomplete or ambivalent evaluating criteria of meritocracy **"Lack of meritocracy in the system, greed, weakness to accomplish our goals, and be forced to follow a different professional path" (20F28AUS),** are the protagonist source for the sense of participants' injustice **"Injustice, unfair treatment, nepotism, refusal to change" (81M40AES)** that exists. Social and personal networks "**Lack of fairness. All based on interest and acquaintances for instance to find a job, acquaintances count more than qualifications" (246F26AUS)** with elements of greed and unlawful essentials interfere and promote competence and performance in society system. The result of this non-merit-based system is stagnation and weakness to create a new era of progress.

5.8.3.1.6 Fascism

The nature of fascism with violence, social inequality and racism **"Racism in all levels" (165F45AES)** as its nurture tools appear a popular movement during financial crisis. Participants dare to say that crisis through its society deprivation gives birth to a fascist expansionism **"Rise of fascism, social analgesia, political apathy, lack of education" (71M41AEMCH)** as an instinct to survive **"People due to anger and despair turns to " ideal " nationalist and violent" (48F40AEMCH)**. The only law that exists is **"your death my life" (14F35AES**) as one participant described while society is breaking down.

This social representation of aggression is illustrated in Reich work (1946) "The Mass Psychology of Fascism" where the social construction of individuals entails three layers. These layers of the character structure are deposits of social development, which function autonomously. On the surface layer of his personality the average man is reserved, polite, compassionate, responsible, and conscientious. Second layer is an intermediate character layer, which consists exclusively of cruel, sadistic, lascivious, rapacious and envious impulses (represented by Freudian unconscious, what is suppressed). The third, deepest, layer, the biologic core which under favourable social conditions, man is an essentially honest, industrious, cooperative, loving, and, if motivated, rationally hating animal.

Financial and social suppression of last decade in Greece which displays an arrogant contempt for the wishes and needs of the majority trigger harmful behaviours to common welfare but mostly trigger the emotion of anger and disgust of participants who oppose the rise of fascism. In this case, it appears that the exact opposite sides of the

coin, cruelty and compassion, related to the survival needs exist simultaneously and a battle may come soon; either to destroy or to protect.

5.8.4 How Participants Reacted to Those Situations

5.8.4.1 I do not respond

Participants described their difficulty to respond on the various austerity conditions that occur daily in Greece. They feel unable to respond **"I do not react, grieve and try to be right as a person. I do not demonstrate and I'm not part of an organization e.g. activists" (172F50APDCH)** to significant negative changes in the economy and society of today **"I have been informed of what I could do... I tried to do what I can, I saw that there is nothing that I can to help the state or me" (223F31AES),** and lack of resources stop them to react **"Unfortunately do not have many things we can do" (244F46AUMCH) and "I cannot do anything to help substantially" (242F24OAES)**. Feeling unable to keep up with the demands, implying your insufficiency that may connect to low self -evaluation of abilities. The associated thoughts and emotions will impact the self-conceptions and motivations and will contribute to the sense of sense with self-doubts and negative feelings. Interestingly, they believe that they need to change the whole system collectively **"I did not react because I am unable to do it alone. You have to change the whole system and the structure of Greek society" (246F26AUS)**, and **"I cannot react individually" (110F35AEMC)** and unite their efforts to stabilize society's needs and economic growth and output. Social change refers to the transformation of behaviour, social institutions, and social structure

over time. Greek participants are not only be fooled by the false economic recovery that all governments are proud of, but they have been abandoned in a financial shock while they were waiting for the social change. The financial struggle they face everyday life for the fuel they need to put in their cars, utility bills or the price of food has been viewed by the welfare state as insignificant financial shortfalls nevertheless it looks that leads them steadily to a passive avoidance.

Many will argue that the start is the most difficult part but for few of the participants even if they have tried to be informed of what they can do, the situation for them had no hope of making progress. It is a dead-end situation that makes them feel unable to react and respond, **"I haven't reacted" (9F38AUS)** and they just wait and expect a change for the better **"I did not react as most of us. I wait for something better to happen without do something, to do anything; I don't know what" (184F46AEDCH)**. Some of them wait with hope and little action **"did nothing I buy Greek products only" (12F55AEDCH)** or with panic **"I do not respond I am in a situation of panic" (10F40AEDCH)**.

Individuals who prefer a passive decision-making role are the most likely to be anxious and depressed (Anderson, Arnold et al. 2009). Avoidance coping as a maladaptive coping mechanism characterized by the effort to avoid dealing with a stressor operate as a predictor of panic related distress (Spira, Zvolensky et al. 2004). Everyone experiences feelings of anxiety and panic at certain times, it is a natural response to stressful situations and indeed sometimes people feel that the best that they can do is just stop. However, the problem with apathy, feeling stuck and helpless to

change a situation, is that does not set the boundaries of comfort zone rather it strongly connects individuals with mental disorders such as depression.

5.8.4.3 Social Withdrawal & Mosaic of Negative Feelings

A few participants described that they isolate themselves from the social milieu **"I do not have any reason to react simply because I do not deal with the society" (27M38AUMCH)** and **"I operate as individuality, against that bothers me with all my democratic right" (149M55AEMCH)**. Social disappointment was associated with withdraw and participants appeared more content to be silent, inactive viewers of financial crisis **"as a simple observer" (79F37OAMCH),** and **"passive reaction, I didn't react, just sit and watch things evolving" (50M31AES)** social transformation and prefer a passive right to vote **"With my vote when appropriate. I do not think. In ignoring the rest of the time in order not to break down my mood" (49F38AEMCH)**. Accepting responsibility for your self is not easy since you need to eliminate excuses, remove any blame and discipline yourself to do what you know is important and right. Argumentative one may consider that responsibility is not just a list of tips of writing a novella plan by just increasing the pace, keep it fluid, minimize number of characters and settings and be the hero in the end. Responsibility requires determinism, action and the ability to do otherwise. Cut yourself off from society it is a form of protecting yourself especially if the society turns to be selfish and exploitative, but you automatically become a passenger who just pay the train fare and lose the sight of your path on destination and choice. Social isolation, and loneliness do not help you to monitor your mood since you lose sight of your role to exist and participate in society, family, and community. Is that

so important a skeptic may ask? It is important since the psychological dimension of the sense of belonging helps you to cope with stress and provides feelings of personal control otherwise its lack may lead again to depression (Dazkir 2018).

Despite the fact that social disappointment appears more forceful from active socio-political engagement some of the participants find activities that help them maintain the feeling of being all right **"I try to do whatever please me for not getting sad-be melancholic with this whole situation around us" (180F50AEMCH)** and keep themselves active with **"exercise" (49F38AEMCH)** and help them to prevent their melancholic passive behaviour. It seems that they distant themselves from the social stressful environment, and create a positive isolated environment, to help them maintain their joy, and laugh **"patience, stress, isolation, joy, laugh" (177F22ASTS)**. Conversely, the consumption of food **"I eat a lot" (91M38AEM)** and cigarettes **"smoking" (111M28AES)** was also an indicator to externalize anxiety. The more they feel pressure the more they smoke and eat.

As some participants decide to remain withdraw since socio-economic and political situation deteriorates them socially, some manifest emotional difficulties of internalize nature such as **"hate, rage" (176209AES)**, **"anger, disappointment" (18F38OAUMCH)**, strong irritation **"loathing rage injustice" (119F23AUS)** appear. Constant irritability and anger are emotional symptoms that alert you to a problem therefore you will be best off heading the stop sign. The stop sign illustrates that something needs to change and failing to do that a disappointment appears by the non-fulfillment of one's hopes. Ironically, stop sign does not stop on the feeling of disappointment and find in the end a way to deal with it. The feeling of not having any

hope left, the feeling of despair appears when negative emotions are extreme or very long lasting (Huppert 2009) and may act as the pale horse of revenge either towards yourself either towards others. Although many people in despair they do not have mental illness, despair can take over the person and makes them want to reject the specific reality of life and suicide feels like the only way out. Some of the issues that clinical despair entails are such constructs as suffering, loss of dignity, demoralization, hopelessness, and loss of meaning in life. Despair also moves towards the negative pole of behaviour and then shows up as "bad" attitudes.

The worsening of the present situation in Greece makes them feel angrier and seems that participants react to the extreme austerity measures and structural constraints of the crisis with extreme reactions **"with rage, anger, indignation but also sadness" (215F34AES)** and **"extreme electoral options" (189M24AUS)** such as aggressive thoughts **"organizing their professional and not only destruction to the point of their vanishing" (108M39AES)** that may be social or self -destructive and sometimes they feel of losing the control of their reactions **"even more fret that I do not know how to react and very often I hawk my car horn or get very angry" (137F35AEMCH).**

5.8.4.4. Calmness and patience

One might logically expect that to remain calm through the crisis is difficult and often unachievable. Many participants, however, nurture **"calmness" (27M38AUMCH)** as a center of attention and to be tranquil is the characteristic that helps them to dissolve

negative issues. Calming an anxious mind requires to have well-honed coping strategies and activities that help you practice calmness on a daily basis.

Some of the participants prefer patience **"I am being patient" (55M43AUS),** and **"patience, persistence" (126F40AUS)** as a helping behaviour to their problems. There is a two-dimension purpose that act through patience, (a) economic restraint, (b) persistence in response to their life downturns. These problem-solving techniques help ease anxiety, but an insider's account of the challenges shows that in an era dominated by economic restraint it is impossible to flourish as individual since in societies with austerity measures actionable opportunities with an open approach and access do not exist.

This is a possible reason that some participants feel that due to crisis are obliged to migrate **"I moved to England to find work" (2F28OAUS)**. The reasons that people move vary greatly but the main reasons for leaving Greece the last 8 years of financial crisis are economic reasons and employment. An internal migration **"I left the urban environment" (240M28OAES)** is also a choice for the participants; they relocate from urban to rural (counter urbanization) residential environment seeking solace and comfort. Even if studies demonstrate that suburban development influence positive mental health and well-being in terms of walkability, green environment, and clustering of houses, a systematic review (Krefis, Augustin et al. 2018) for European and North America cities revealed the lack of interdisciplinary approaches to evidently argue for urban and suburban structures and dynamics possible influences on health and well-being. Further research is needed to gain a more objective view on the quality of life on rural and urban environments.

5.8.4.5 Forms of Protest

Street protests and strikes are forms of expression usually of disagreement of people on political decisions about the social welfare; it gives them the ability to appeal their decision. When unsuccessful demonstrations and strikes failed to break the deadlock participants' faith for a positive change has been challenged **"I went out on the streets with thousands of protesters. There was no point at all. People in Greece make daily demonstrations walking peacefully and telling jokes about their chicks while the world burns. They respond to social violence with nothing. I am frustrated more and more of our society; I lose my hopes for a better future and become cynical" (14F35AES)**. They feel frustrated by the political system and unable to alleviate socioeconomic impact since their vote or demonstration and **"with despair with my vote" (199F35AEMCH)** will have little or no effect on political decisions.

Some of them are adept at reframing the negative events into positive ones and practice other forms of protests such as helping others **"I become a volunteer where I can offer" (121F37AUPCH)** and **"I am a volunteer in social services" (183F56APMCH)**. Volunteering has positive implications to improve mood and self-esteem and except form positive community impact it is a way to look on the bright side of life. A growing body of evidence shows that being positive and helpful towards others prevents feelings of loneliness, helplessness and gives you time that you feel socially connected (Musick and Wilson 2003). Working with pets and other animals has also been shown to improve mood and reduce stress and anxiety and participants mention that working with animals help them to be more confident and think ways of how to protect **"For the protection of life and dignity of animals directly act and have direct effect.**

Regarding suicides would like to contribute to the elimination of suicides and I am thinking an intervention, and so for the tyranny of men" (42F48OAUDCH). Protecting life dignity and helping others make participants feel empathy towards others, feel more positive; maintain the social stability and pursuing a peaceful social environment. Their concept of the dignity of creation with regards to humans and animals includes treating people and animals with care and compassion.

Other forms of protest are to awake others to be social aware of their rights and deal with social problems and being involved in politics. However, developing awareness **"I try to become people aware, the more people I can" (90F28AES)** and how you develop this awareness **"Spread the bad news around so everybody is aware of the unfairness of the system" (1F47AUS)** seems to involve a careful consideration of the dynamics of the social relationships between individuals or groups. You have to walk the fine line between providing support to social awakening of people without being too prescriptive **"activist and became unpopular with no effect" (118F35AUS)**. It seems that when pressure about awakening others for their social rights is excessive can also lead to stress people, instead of helping them to be aware and more active on their rights. It seems that positive orientation of help matters, and it is considered as pointing forward or in the positive direction. The contrary has been received as intention to patronize and resulted as unwanted social pressure.

5.8.4.6 Reflection and adaptation

A number of participants mentioned that the effects of the financial crisis cannot be neglected, and the heart of the problem analysis is reason **"find the reason and**

resolve the matter" (53F38OAEMCH), rationality **"rational, instructive" (87F27AUS)** and discussion with **"personal feedback" (76F38AES)**. There is no a specific formula to do this; reflection is where participants analyze, develop and starting to think about ways to do this **"Analysis of each situation separately, record my mistakes and what I learned from each case and try to improve myself for next time" (92M47AUD)**. They place aside all the negative feelings and use their rational using **"understanding and discussion" (52M39AES)** to simplify their life.

Participants adapt to crisis through their ability to change **"adaptation to solutions" (20F28AUS)** and **"I try to change" (174M24AEM)**. They describe that they keep things in balance with trying to find work, solve problems with reasoning **"trying to find the cause and resolve the matter" (53F38OAEMCH)**, getting and staying organized on their everyday routine. Some impact of crisis and the ensuing austerity measures embeds the violation of dignity for one participant. Employment helps to maintain a sense of worth and maintains a sense of dignity when you care for someone else, especially a family **"I try to keep my mental balance, looking to find work and regain my dignity on the eyes of my family" (13F53AUMCH).**

Adaptation involves distancing yourself from negative thoughts and feelings and focus on solutions and not problems. Through their words it seems that change does not necessarily involve risk and dangers rather involves sense of bonding, meaningful life and rational decision making with a clear mind and experiencing a positive or neutral mood. Life is full of happiness and tears but to stay positive oriented not only through hope, but also careful planning makes you stronger than the setback.

5.9 Discussion

Social structural factors influence the behaviour of people and exploitation, political exclusion and unequal access to resources result to desensitized people and society. The opportunity for personal fulfilment seems to be diminished during unemployment and ethico-social deterioration is a distinguishing feature of unemployment. Most of the participants described that unemployment can have a negative influence on their socio-psychological health; however, the findings showed that the impact was more noteworthy for some participants than others. As the results indicated unemployment is a factor leading to compromise of employment needs and standards that might affect also their productivity; it has a negative effect on the sense of self-worth and efficacy and can change individuals' personality.

Even if the looking glass is broken now after 8 years of economic crisis in Greece some participant have a different view from Cooley's (1902) context of society and reactions of others as a vital element of a person's image of themselves. How you perceive yourself and how others perceive you involve a dynamic interaction of self-esteem, self-efficacy and locus of control. Alternative to this, some participants substitute the negative effects of context of society (the financial crisis) with faith, optimism, enthusiasm and patience. These participants strengthen through their unemployment struggle, raising their hope and efforts for the better. Although there is always a bright side to everything the bigger picture of this study's results narrates participants' self-struggle through unemployment in a sharp and chilling way.

Participants' struggle to escape from what composes their unemployed self (stress, agony, doubt, worthlessness) and what they experience (failure, injustice,

exploitation, stagnation) is in accordance with Allport's (1949, Allport 1955) idea that perceptual field of self consists of a personal reality, the existence of which the individual is fully convinced of, regardless of whether or not it really exists. Rogers (1951) also supports this since he believes that humans and their subjective reality is based on the present context which changes constantly and of which they are the center. For some participants their physical health also deteriorates since difficulty to concentrate, difficulty to make decisions and sleepiness appeared.

It is clear from the findings that work has a fundamental and influential role in a person's life. Past experiences can give you motivation to succeed since findings suggest and are in accordance with Sheeran (1994) that even comparisons with the past self are highly predictive of psychological distress among the unemployed (Sheeran, Abrams et al. 1995). This can be also seen in James's (1890/1963) belief that self-esteem is a set of perceptions of the individual for himself and his abilities. When this perception is violated and distorted with repetitive refusals of finding a job the same seems to happen on individual awareness of the ''I'', his experience of continuity, distinctiveness and volition become disrupted.

This disruption creates a gap that findings suggest is full of disorder towards the self and the others. Participants words include irritability, sorrow, feelings of worthlessness, difficulty to concentrate, difficulty to make decisions and sleepiness all the above can be seen in emotion theories and research arguing that the gap between internal standards and self -representations harvests emotional problems (Allport 1955, Rogers 1961, Adler 1964, Brown and Marshall 2001, Hay and Diehl 2011, Pelt, Barbier et al. 2018).

The balance of the argument agrees with Burns (Burns 1982, Burns 1991) mentioning that status, prosperity, aims and goals synthesize the self-concept which is learned, and, since it is learned, it can change and adjust direction as other learning experiences are encountered, and define evidently and gradually just who and what an individual is. The problem with this agreement is that indeed participants through financial crisis and unemployment period not only feel erosion of self-esteem with feelings of hopelessness, self-doubt, personal devaluation and a pattern of frustration which reduces adaptive thinking as Dean (1995), Feather (1989) and Warr (1982) suggest but also results show that the new emerged self is acute, self-limiting and highly unprincipled when society is broken. Although many will argue that this is an overstated scope unfairness and indifference for the people in need from the social welfare verify the above idea that a system that fails to prevent, protect and provide creates a sad unfair world.

Under the perspective of social self, the findings concur with Eisenberg and Lazarsfeld (1938) paradigm that the unemployed really hope to regain work or even find a better job but they start to feel despair, they leave aside their dignity on the job since the state of drowning obliges them to gain undesired qualifications and work roles. We may say that unemployed social self through this state of drowning is tied with a negative perception of self-efficacy and shame (Jerusalem and Mittag 1995, Rantakeisu, Starrin et al. 1999, Boardman and Robert 2000, Waters and Moore 2002) that result in their future manipulation by employers (either with low salary, either with a lower different work role, or with under-employment). Greece (71.8%) was among the three EU countries

with the largest shares of underemployment and involuntarily part-time working, along with Cyprus (68%) and Spain (54.2), in 2017, according to Eurostat's labour survey.

Results also show that social interaction and social support metamorphize in unemployment into isolation, unfairness, misleading information through social media and exploitation. Those are the new social faces that rule. This is in accordance with Fagin et al (1984) claiming that a lack of purpose in life results in feelings of alienation from others and society as a whole.

Finally, findings indicate that unemployment feelings are mostly signs and symptoms of social and psychological trauma. On the other hand, it gives us a stimulation to explore more if and how past, present and future self are 'works in progress' that might explain how people make meaningful changes in their lives and other times undesirable hidden parts of the self emerges.

5.10 Conclusion

Having weighed up it seems that the work structures that are rising from the financial crisis the last decade generate precarious work demands influence people's professional choices that result to not only literary to suffocation. The future workplace consists of job insecurity, misery of regaining low paid employment, financial hardship and indignity. Its main foundations entail less freedom on the nature of work, salary and work hours and more control over employees from employers. As a result, work acts gradually not as a productive activity in society but as a core source of destroying a person's physical health and mental well-being in society. The working environment of a society tells how the social relations and structures are changing and the kind of issues

that people must address, procedures that positively influences one's self-esteem and emotions.

5.9: Participants' Feedback and Research Agenda

5.9.1 Participants' Feedback

5.9.1.1 Questionnaire Format

Web-based format: Participants could not see on screen for all 58 items the 5 response categories for allowing the results to be fully distributed from the positive to the negative end of the range and are according to the following scoring values: I do not feel = 1, I feel rarely= 2, I feel sometimes= 3, I feel very often=4, and I feel all the time= 5.

They suggested each response column to include the scoring value. Participants noted that there seems to be a slight malfunction on question 15 (Do you have children?) and 16 (If yes, how many children, age and gender) while completing the questionnaire online. Specifically, although participants answered 'No' on question 15, the online questionnaire demanded an answer on question 16 and they couldn't continue and answer the next question.

5.9.1.2 Participants' Question: Is there anything else you want to add?

Participants reported that some of the emotional terms on the 58-items questionnaire were found to be confusing and were puzzled with the following terms:

	Confusing terms	Participants' comments addressed:
1.	Lust (λαγνεία)	No comment
2.	Pity (κρίμα)	Is there a difference between "to have *pity* on somebody" and "to have *mercy* on somebody"?
3.	Frustration (ματαίωση)	Self-frustration in a self-defeating manner or *failure* to achieve a *goal?*

4.	Helplessness (ανημπόρια)	Helplessness on what? To help myself or others?
5.	Care (φροντίδα)	Take care of yourself or take care of others? Do you mean if I receive care by others or do you mean if I am willing to offer care to others?
6.	Play (παιχνίδι)	What do you mean with play?
7.	Petulance (παραφροσύνη)	No detailed comment
8.	Attraction (έλξη)	No detailed comment
9.	Ecstasy (έκσταση)	No detailed comment
10.	Tension (ένταση)	No detailed comment
11.	Alertness (ετοιμότητα)	No detailed comment
12.	Thoughtfulness (σκεπτικότητα)	No detailed comment
13.	Elation (έξαρση)	No detailed comment
14.	Jubilation (αγαλλίαση)	No detailed comment
15.	Embarrassment (αμηχανία)	No detailed comment
16.	Reverence (ευλάβεια)	No detailed comment
17.	Hatred (έχθρα)	'I feel hatred towards politicians not a general hatred of people'
18.	Pain (πόνος)	Emotional pain or physical pain?
19.	Apathy (απάθεια)	No detailed comment
20.	Τρυφερότητα (affection)	Do you mean if I receive affection by others or do you mean if I show affection to others?
21.	Θρίαμβος (triumph)	Talking about what?
22.	Ικανοποίηση (Contentment)	Do you mean to derive satisfaction from my personal life?
23.	Τρόμος (terror)	What do you mean?
24.	Εξέλιξη (progress)	Personal progress or professional progress?

Participants also added the following terms:

	Terms		
1	Lack of solidarity & team spirit	12	Interest
2	Injustice	13	Disruption
3	Love	14	Insecurity
4	Companionship	15	Insufficiency
5	Tranquility	16	Disappointment
6	Vanity	17	Vindication
7	Calm	18	Dysthymia/ Moroseness
8	Loneliness	19	Guilt
9	Ingratitude	20	Relaxation

10	Agony about the future of my children	21	Hate
11	Optimism	22	Uncertainty for the near future

Emotion terms-responses were subject to a thematic analysis to identify patterned meaning and define positive and negative terms. Analysis theoretically was based on Ekman's "basic emotion" term to name the common, underlying concept that holds together an "emotion family", and describe a basic emotion as the category (theme) for the essential elements of a set of similar emotions (Ekman 1994). We consider the "basic emotion" to reflect the communality that underlies a set of similar but not identical emotions. The emotions clustered in positive oriented and negative oriented emotions (Table 22).

Table 22 Positive and Negative Oriented Emotions

Positive	Negative
Love	Lack of solidarity
Companionship	Injustice
Tranquility	Vanity
Calm	Loneliness
Optimism	Ingratitude
Interest	Agony about the future of my children
Relaxation	Disruption
	Insecurity
	Insufficiency
	Disappointment
	Vindication
	Dysthymia/ moroseness
	Guilt
	Hate
	Uncertainty for the future

With the help of peer review group of one psychiatrist, one psychologist and with the assistance of the author a list from the above list was developed to add the necessary

terms on the final questionnaire for the full-scale administration. Under that perspective, the terms love, tranquility and interest already existed on the list of basic emotions derived from literature and stayed on the final questionnaire. Love was considered similar term with companionship. Relaxation was considered similar term with calm and grouped together with tranquility and tranquility remained on the final questionnaire. Agony about the future of my children, uncertainty about the future and insecurity were considered similar terms and only uncertainty about the future remained for the final questionnaire. Quilt, injustice, vanity, and loneliness were added on the final questionnaire. Injustice was specified as social injustice and vanity was specified as vanity of life; those detailed terms were derived from the qualitative part of the scale development.

The terms that remained for the final questionnaire were: Love, tranquility, interest, meanness, uncertainty about the future, quilt, social injustice, vanity of life, and loneliness. The rest of the terms were eliminated as unnecessary and questionable for their exact meaning for the final questionnaire.

5.9.2 Research Agenda Results: Identification of Emotion Terms

Under the perspective of a systematically social desirability biased data (Fisher 1993) due to possible desire of participants to avoid embarrassment and to ask clarifications during the completion of the questionnaire, this research project used a research agenda. The aim of the research agenda was to keep in memory for any other questions noticed by participants before and after the submission of the pilot testing questionnaire.

Participants mentioned that it would be helpful to list emotion terms in response to a specific situation, event or to specific people. According to their suggestions the emotions terms were: Sadness, confidence, contentment and hatred.

(1) ‘’sadness’’ changed into 2 different terminologies:

(a) sadness, and (b) mourning sorrow,

(2) ‘’confidence’’ changed to ‘’trust in me’’.

The term confidence according to English Oxford dictionary is defined as “feeling or showing confidence in oneself or one's abilities or qualities”, thus this research does not consider any cultural factor as barrier for the change of this term. On the other hand, it considers that pilot testing participants gave the exact use of this term in their everyday life.

(3) ‘’contentment’’ changed to ‘’life satisfaction’’, and

(4) ‘’hatred’’ changed to ‘’meanness’’.

The terms, sadness, mourning sorrow, trust in me, life satisfaction, and meanness were kept for the final full-scale questionnaire administration.

Chapter 6: Study 2 – Reliability

6.1 Introduction

NEScale as a new designed measure needs to demonstrate that it actually works. A measure is seen as being reliable when it can be used by a number of different researchers under stable conditions, with consistent results and the results not varying. Reliability reflects consistency and replicability over time (McMillan and Schumacher 2010)

NEScale reliability (Study 2) tested in a large sample of employed (N=1101) and unemployed (N=1100).

NEScale consisted of 31-items on a Likert type scale (I do not feel=1, I feel rarely=2, I feel sometimes=3, I feel very often=4, I feel all the time=5). Two principal components analyses were performed to ascertain a factorial construct for the emotions of the NEScale. The first analysis revealed the existence of cross-loading items, a fact which informed the structure of the second and final analysis which resulted in a 24-items

Cronbach reliability for the entire scale was acceptable at α=.662 (24 items), reliability of the sub scale "Negative" emotions was acceptable and high α=0.780 (9 items), "Positive" emotions was acceptable and high α=.0850 (8 items), and "Trauma and Stress-related" emotions was acceptable α=0.680 (7 items)

Two significant findings give evident -ground for further research on mental health between suburb and rural areas and mental health and unemployment. In particular, independent-samples t-test showed that there was no statistically significant difference (t=.475, df=1670.19, p=.635) between the levels of Trauma-related Emotions

of those who resided in Athens (mean score 1.089) and those who resided outside Athens (mean score 1.077). There was a statistically significant difference in the levels of Trauma-related Emotions between employed and unemployed participants (t=12.31, df=2199, p<.0005). Specifically, unemployed participants had significantly higher trauma-related emotions (N=1100, mean score 1.231) than participants who were employed (N=1101, mean score .938).

Findings highlight that the Nottingham Emotional Scale (NEScale) is a valid instrument to assess emotion reactions in ongoing hardship in the general population and assess emotion reactions and act as a diagnostic instrument of mental health and specifically PTSD in the unemployed.

6.2 Population

The population of the study 2 is Greek people living in Greece.

6.3 Participants' Inclusion Criteria

In this study, the population is defined as:

a) men and women with age 25-65

b) being employed or unemployed,

c) men and women with higher education (BA/BSc, MA/MSC, PhD or Postdoc)

6.3.1 Participants' Exclusion Criteria

Men and women with:

d) any long-term illness,

e) health problems or disability that, with or without the use of aids or medication, limits their daily activities,

f) self-employed (having their own business)

6.4 Recruitment Strategy

Two strategies utilized to enhance participant recruitment: 1) online social networks, and 2) Job centers to identify potential participants.

6.5 Procedure

For the completion of the NEScale, participants were asked to rank the extent to which they feel a series of 31 emotions (Appendix 10). Data and demographics (Appendix 11) were collected through the Bristol online surveys and paper -based collection. An information sheet (Appendix 12) and a consent form (Appendix 13) informed them about the nature and aim of the study.

6.6 Data Storage

Data was stored on a password protected university-affiliated research pilot study website, http://www.survey.bristol.ac.uk/ through Bristol Online Surveys services which was designed specifically for this study.

6.7 Ethical Consideration and Approval

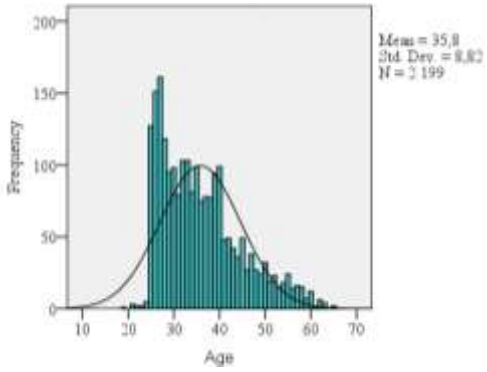
This research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies

6.8 Study 2 – Results

6.8.1 Characteristics of the sample

For the present sample of N=2201 participants, the majority were female (64%, N=1412). Males comprised 36% (N=788); there was one missing value. The mean age was 35.8 years, with a standard deviation of 8.82; the minimum age was 19, and the maximum age was 65 years old. For age there were two missing values. The histogram below represents the ratio data for age, with the normal distribution curve superimposed. As is apparent in Figure 9, there is a skew of the data with the ages of 25 to 28 years appearing more than the normal distribution would predict.

Figure 9: Age of the participants with the normal distribution curve



As to their geographic location, 64% resided in Athens (N=1405), and 36% lived outside Athens (N=796). Approximately 50% of the participants originated from five main areas of Greece (Appendix 14), specifically the prefectures of Thessaloniki, Lesbos, Kozani, Achaia, and the Island of Crete with its four prefectures. In all, 47 out of 51 prefectures of Greece were represented in the study. A small percentage of participants

were from abroad – outside Greece (1.8%, N=14). Specifically, they were from the United Kingdom (N=5), Bahrain (N=3), Cyprus (N=1), Scotland (N=1), Germany (N=1), Austria (N=1), and "outside Greece" (N=2).

As to the samples' educational level, the majority reported that they had received a BA/BSc (83.6%, N=1839). Fifteen percent had been awarded an MA/MSc (15.2%, N=334); 1.1% had received a PhD (N=24); and four participants had done postdoctoral academic work (0.2%, N=4). Concerning their field of study, the N=2201 participants provided 2316 responses. Table 24 presents the main fields of study accounting for 74% of the sample (see Appendix 15 for a complete table of fields of study).

Regarding current employment status, 50% of the participants were employed (N=1101) and 50% were unemployed (N=1100). The mean duration of employment for the total sample was 10.1 years or 121.31 months, with a standard deviation of 8.64 years (103.74 months). The minimum reported duration was 1 month, and the maximum was 43 years. It is noted that overall 1032 valid responses were received. Given that item 5a ("employment duration in months") is an open-ended question, some responses were invalid and were excluded from the data. These were N=69 responses, 44 of which were removed due to ambiguity regarding whether they referred to months or years of employment. An additional N=25 were excluded due to other ambiguities in participant responses.

With respect to type of employment, overall N=1123 responses were provided. Table 24 presents the main responses, along with employment subcategories, by frequency of reports. The most common reports of professional areas were for Private Employment (28%) and Teaching/Education (17%). Nursing (5%), Secretarial (4%),

Government Employment (3%), Management Personnel (3%), Doctors (3%), Public Employees (3%), Law (2.5%), Psychology/Therapy (2.5%), Accounting (2%), and Sales (2%) complete the top 74%. The complete list of professional areas reports can be found in Appendix 2.

Table 24: Types of employment reported

	Frequency	Percentage	Cumulative %
Private employees	316	28.1%	28.1%
Teaching and Education	188	16.7%	44.8%
Nursing	52	4.6%	49.4%
Secretarial Support	43	3.8%	53.2%
Government employees	34	3.0%	56.2%
Management Personnel	32	2.8%	59.0%
Doctors	31	2.8%	61.8%
Public employee	31	2.8%	64.6%
Law	28	2.5%	67.1%
Psychology and Therapy	28	2.5%	69.6%
Accounting	27	2.4%	72.1%
Sales	25	2.2%	74.4%
Other professions/employment	288	25.6%	100.0%
Total of reports	1123	100%	

Regarding unemployment duration, N=911 valid responses were received. There was an additional number of N=169 responses that were invalid (did not specify month or year) and were excluded from the data. The mean unemployment duration was 21.24 months (1.77 years), with a standard deviation of 20.93 months (1.74 years). The minimum length of unemployment was 1 month, and the maximum was 19 years (228 months).

With respect to family status, almost half of the sample were single (46.9%, N=1033), and 45.9% were married (N=1010); 6.4% were divorced (N=141) and 0.8% were widowed (N=17). More specifically, 45.8% were single (N=1009) and 1.1% were single with children (N=24); 37.9% were married with children (N=835) and 8% were married without children (N=175); 5.2% were divorced with children (N=114) and 1.2% were divorced without children (N=27); and 0.7% were widowed with children (N=15), and 0.1% were widowed without children (N=2). The marriage period for the married had a mean duration of 10.31 years (123.7 months). For the divorced, the mean divorce period had been 6.64 years (79.7 months). The time since spouse's death of N=20 participants had lasted on average 6.55 years (Table 25).

Table 25: Participants' marriage and divorce periods and time since spouse's death

	N	Minimum	Maximum	Mean	Std. deviation
7. Marriage period (Months)	973	2	600	123.72	106.96
8. Divorce period (Months)	134	4	300	79.72	67.11
9. Time since spouse's death (Years)	20	1	13	6.55	3.91

Almost half the sample reported that they have children (45.5%, N=1001). Most had one child (N=425) or two children (N=478); N=80 had three children and N=18 had four children. N=253 participants did not provide a response to this item. As a general index, on average each participant can be said to have had 0,87 children. Of the valid sample 31% had boys (N=682) and 29% had girls (N=639). Specifically, 22.2% had one boy (N=488); 7.9% had two boys (N=174); 0.7% had three boys (N=15); four participants had four boys; and one participant had six boys. Of the sample 20.8% had one girl (N=458); 7.4% had two girls (N=163); 0,7% had three girls (N=15); two

participants had four girls; and one participant had five girls. Most boys and girls were aged under 10 years old (61% and 59% respectively). Table 26 presents the frequencies and percentages on the children's age ranges.

Table 26: Ages of participants' boys and girls

		<10 years old	10-18 years old	≥19 years old	Total
Boys	N of boys	454	161	130	745
	% of boys	60.9%	21.6%	17.5%	100%
Girls	N of girls	403	144	133	680
	% of girls	59.3%	21.2%	19.5%	100%

Regarding their offspring's employment status, in N=660 responses, most offspring were not currently in employment (86.2%, N=569); 13.8% were employed (N=91). The offspring worked or had worked as private employees (N=64) and as public employees (N=38); two were company owners. In N=463 responses, 88.1% of the offspring lived at home (N=407); 11.9% lived elsewhere (N=55). Of those that lived at home (N=361 responses), most did not contribute to household expenses (88%, N=318).

Only 5,4% of the sample had long-term illnesses, health problems or disabilities that limited their daily activities (N=118). In all, 117 ailments were reported, many of which related to thyroid problems (N=28); orthopedic problems (N=17); diabetes (N=10); hypertension (N=7); asthma (N=6); arthritis (N=4); and high blood sugar (N=4).

6.9.1 Analysis

6.9.1.1 Emotions felt by participants

For the completion of the NEScale, participants were asked to rank the extent to which they feel a series of 31 emotions on a 5-point Likert scale. For all items, the minimum response provided was 1 ("I do not feel") and the maximum response was 5 ("I feel all the time"). There were no missing values or invalid responses for these items (N=2201). Appendix 16 presents the frequencies and percentages for all emotion items.

Table 27 presents the means and standard deviations for the 31 emotions items in order of magnitude.

Table 27: Means and standard deviations for the 31 emotions

	Mean	Std. Deviation	Correspondence to scale
Love	3.12	.891	
Uncertainty about the future	2.66	1.121	
Pride	2.62	1.019	
Trust in me	2.62	.964	*I feel very often*
Social injustice	2.60	1.198	
Determination	2.55	.957	
Stress	2.52	.977	
Happiness	2.43	.854	
Tiredness	2.33	1.037	
Enjoyment	2.33	.869	
Life satisfaction	2.30	.934	
Irritation	2.30	.868	*I feel sometimes*
Nostalgia	2.10	1.087	
Anger	2.06	.946	
Tranquility	2.04	.939	
Agony	2.03	1.001	

Sadness	2.01	.840	
Fear	1.63	.983	
Sleepiness	1.50	1.095	
Rage	1.41	1.105	*I feel rarely*
Boredom	1.31	1.075	
Despair	1.30	1.055	
Loneliness	1.26	1.127	
Guilt	1.14	.962	
Panic	1.05	1.029	
Depression	1.02	1.046	
Apathy	.99	1.030	
Jealousy	.98	.889	
Vanity of life	.98	1.096	
Meanness	.86	.874	
Mourning sorrow	.82	.953	

One-sample t-tests were performed to establish whether the mean responses of the emotion items differed significantly from the central value of two (2).

It is important to note that a large sample size can result in very small differences being statistically significant. To address this consideration, the present research has adopted a more stringent or conservative level of statistical significance, at $p<0.001$, which was selected over the commmonly used $p<0.05$ or $p<0.01$ levels. This decision follows the recommendation of Harju et al. (2014), who argue that with large sample sizes “even practically irrelevant differences among groups may become statistically significant” (p. 913). All t-tests with the sample of N=2201 have thus utilized this conservative level of significance.

The t-tests showed that 27 out of 31 items differed significantly from the central value 2. The items that did not significantly differ from the central value 2 at the significance level of p<.001 are Sadness, Agony, Anger, and Tranquility (Table 28).

Table 28: One-sample t-tests for statistical difference from central value 2 (df=2200)

	p	t
Different from central value 2 (at p<.001)	p≤.0005	Happiness (t=23.8), Enjoyment (t=17.7), Mourning sorrow (t=-58.3), Panic (t=-43.3), Fear (t=-17.8), Rage (t=-25.1), Love (t=59), Meanness (t=-61.4), Jealousy (t=-53.8), Irritation (t=16.3), Nostalgia (t=4.3), Despair (t=-31.1), Guilt (t=-42.1), Apathy (t=-46), Boredom (t=-30.2), Sleepiness (t=-21.5), Stress (t=25.2), Trust in me (t=30), Determination (t=26.7), Pride (t=28.8), Life satisfaction (t=15.3), Depression (t=-44.1), Uncertainty about future (t=27.7), Social injustice (t=23.5), Loneliness (t=-30.8), Tiredness (t=15.1), Vanity of life (t=-43.8)
Not different from central value 2 (at p<.001)	p=.209	Agony (t=1.3)
	p=.447	Sadness (t=0.8)
	p=.002	Anger (t=3.1)
	p=.028	Tranquility (t=2.2)

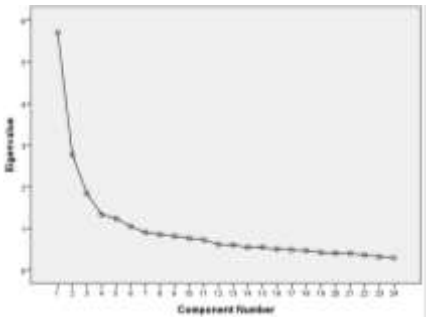
The one-sample t-test showed that 27 scores of NEScale are independent; there is no relationship between scores on the scale. However, four (4) items did not significantly differ from central value 2 thus a Principal Component Analysis (PCA) is required to reveal the internal structure of the data in a way that best explains the variance in the data completing NEScale's predictive model.

6.9.2 Factor Analysis

Two principal components analyses were performed to ascertain a factorial construct for the emotions of the NEScale (31 item). The first analysis with the 31 items of NEScale revealed the existence of cross-loading items, a fact which informed the structure of the second and final analysis, presented in detail. A Varimax rotation method with Kaiser normalization was used, and the factors to be extracted were fixed to three (3). The decision to extract 3 factors was based on two considerations. First, the scree plot for the included emotions items appears to suggest that a 3-factor solution is appropriate. Additionally, when an eigenvalue-based extraction was performed, the output was 7 factors which, due to their sheer number, do not appear to comprise an effective summary of the emotions data.

In the first factor analysis, both the Kaiser-Meyer-Olkin (KMO) (.*9*), test is a measure of how suited your data is for Factor Analysis, and Bartlett's test of sphericity ($p \leq .0005$) tests were successful indicating that factor analysis is useful with NEScale data and the three factors extracted explained 42% of the total observed variance. The first factor was comprised of 13 items and was named "Negative Emotions" as the emotions that clustered in this factor were sadness, fear, anger, irritation, nostalgia, agony, despair, stress, depression, uncertainty about the future, social injustice, tiredness, and vanity of life. The Cronbach reliability was high and acceptable at α=.85 (13 items).

Figure 5.2.3.1: Scree plot for the extracted factors



The second factor, “Positive Emotions”, was comprised of 8 items which were Happiness, Enjoyment, Love, Tranquility, Trust in self, Determination, Pride, and Life satisfaction. Cronbach’s alpha reliability was also high and acceptable at α=.85. The third factor, named “Trauma and Stress-related” Emotions”, was comprised of 10 items which were Mourning sorrow, Panic, Rage, Meanness, Jealousy, Guilt, Apathy, Boredom, Sleepiness, and Loneliness. Reliability was acceptable at α=.76.

However, there were eight items which cross-loaded with more than one factor, exhibiting loadings higher than .3. These were the emotions of Irritation, Despair and Depression from Factor 1 (negative emotions), Tranquility from Factor 2 (positive emotions), and Panic, Rage, Loneliness, and Vanity of life from Factor 3 (trauma and stress-related emotions). In order to ensure that each subscale is coherent, item reliability within subscale was examined through the use of Pearson correlations coefficient (r), a measure of the strength of the association between the two variables, between the 8 emotions and the 3 factors, calculated for all other items but excluding those eight items. The level of statistical significance adopted is at $p<.001$.

Only Tranquility was retained in the factor structure. This decision was made based on the observation that for the other 7 items, when all negatively-correlated item-factor relationships were removed (Table 29, with *italics*), there continued to exist high

positive correlations with more than one –specifically two– factors. Tranquility was the only item left with a single factor loading when the negative correlations were removed.

Table 29: Significant correlations of the 3 factors with the 8 cross-loading items

Correlation[1]	Negative Emotions	Positive Emotions	Trauma and Stress-related Emotions
Irritation	.49	n.s.	.38
Despair	.57	-*.44*	.46
Depression	.50	-*.38*	.49
Vanity of life	.49	-*.38*	.42
Tranquility	-*.38*	.50	-*.19*
Panic	.46	-*.26*	.45
Rage	.46	-*.28*	.42
Loneliness	.39	-*.34*	.39

[1] *All correlations are significant at the p≤.0005 level*

Therefore, the second factor analysis was performed with the exclusion of the 7 items (irritation, despair, depression, panic, rage, loneliness, vanity of life) and with the inclusion of tranquility. The KMO (*.86*) and Bartlett's (*p≤.0005*) tests were successful and the three extracted factors explained 43% of the total observed variance (Table 30).

Table 30: Total variance explained by second factor analysis

Component	**Initial eigenvalues**			**Extraction sums of squared loadings**			**Rotation sums of squared loadings**		
	Total	% Var.	Cumul. %	Total	% Var.	Cumul. %	Total	% Var.	Cumul. %
1	5.711	23.798	23.798	5.711	23.798	23.798	4.097	17.071	17.071

2	2.771	11.548	35.345	2.771	11.548	35.345	3.558	14.827	31.898
3	1.840	7.666	43.011	1.840	7.666	43.011	2.667	11.114	43.011
4	1.337	5.573	48.584						

The NEScale of 24 items has three factors with high and accepted reliability. Analytically, the first factor "Negative Emotions" was comprised of 9 items, namely sadness, fear, anger, nostalgia, agony, stress, uncertainty about the future, social injustice and tiredness. Cronbach reliability was high and acceptable at α=.78. The second factor, "Positive Emotions", remained the same as with the first factor analysis, with the 8 items of happiness, enjoyment, love, tranquility, self-trust, determination, pride, and life satisfaction, with a high and acceptable reliability (α=.85). The third factor, "Trauma and Stress-related", included the 7 emotions of mourning sorrow, meanness, jealousy, guilt, apathy, boredom, and sleepiness, and had acceptable reliability at α=.68 which offers a satisfactory level of reliability (Loewenthal 2004, Lance, Butts et al. 2006). Table 31 presents the structure of the factor analysis.

Table 31: Extracted 3-factor solution with item loadings

1. Negative emotions (a=.78)	**2. Positive emotions** (a=.85)	**3. Trauma and Stress-related emotions** (a=.68)

Emotion	Loading	Emotion	Loading	Emotion	Loading
Sadness	.552	Happiness	.717	Mourning sorrow	.393
Fear	.441	Enjoyment	.676	Meanness	.675
Anger	.539	Love	.608	Jealousy	.664
Nostalgia	.429	Tranquility	.546	Guilt	.462
Agony	.580	Trust in me	.736	Apathy	.622
Stress	.677	Determination	.708	Boredom	.527
Uncertainty of future	.676	Pride	.720	Sleepiness	.444
Social injustice	.572	Life satisfaction	.703		
Tiredness	.540				

Based on the above accepted solution, the factors were calculated using the "Compute" command in SPSS. The Negative Emotions factor had a mean of 2.22, and on average was felt sometimes; the Positive Emotions factor had a mean of 2.5 and on average was felt often; and the Trauma and Stress-related Emotions factor had a mean of 1.08, and on average was felt rarely.

Independent-samples t-tests were used to determine whether there is a significant difference between the means of two groups for the Trauma and Stress-related emotions sample in Athens and outside Athens (Table 32). Standard deviation (SD) measured the amount of variability for the set of data from the mean. Homogeneity of variance was tested with Levene's Test for equality. The Levene test showed that equal variances cannot be assumed for the sample means of the two groups.

There was no statistically significant difference between Athens and outside-Athens residents, on the Trauma and Stress-related emotions subscale, at the level of statistical significance $p<.001$ (Table 32).

Table 32: Means, standard deviations and independent samples t-test for difference on Trauma and Stress related emotions according to residence (Athens/outside Athens)

	Location	N	Mean	Std. Dev.	t-test		
					t	df	p
Trauma Related Emotions	Athens	1405	1.089	.580	.475	1670.188	.635
	Outside Athens	796	1.077	.573			

Finally, an independent-samples t-test was used to determine whether there is a significant difference in Trauma related emotions between the unemployed and employed groups. There was a statistically significant difference between the two groups at $p<.001$ (Table 33).

Table 33: Means, standard deviations and independent samples t-test for difference on Trauma and Stress related emotions according to employment (employed/unemployed)

	Work status	N	Mean	Std. Dev.	t-test		
					t	df	p
Trauma Related Emotions	Unemployed	1100	1.231	.611	12.31	2199	.000
	Employed	1101	.938	.499			

6.10 Research questions and hypotheses

In this section, two research questions are answered, and ten research hypotheses are tested. The research questions and hypotheses are presented in Table 32 For these

analyses, extensive use of the "Recode into different variables" and "Select Cases" commands in SPSS was made.

For all significance tests, the conservative level of statistical significance $p<.001$ has been adopted.

Table 32: Research questions (RQ) and research hypotheses (H)

What are the dominant feelings of:	*RQ1*	employed and unemployed in Athens and outside Athens?
	RQ2	unemployed with children and unemployed without children?

Hypotheses (H):

Research Hypotheses (H):

Occupational Status	
H1	Employed have better mental health and emotional well-being than those who are unemployed.
Urban and rural communities	
H2	Employed residing in urban (Athens city) have better mental health and emotional well-being than those in rural (outside of Athens city) settings.
H3	Unemployed residing in urban (Athens city) have better mental health and emotional well-being than those in rural (outside of Athens city) settings.
H5	There will be no difference on mental health and emotional well-being between unemployed women in urban (Athens city) and among unemployed women in rural (outside of Athens city) settings.
H6	There will be no difference on mental health and emotional well-being between employed women in urban (Athens city) and among employed women in rural (outside of Athens city) settings.
H7	There will be no difference on mental health and emotional wellbeing among unemployed men residing in urban (Athens city) than those in rural (outside of Athens city) settings.
H8	There will be no difference on mental health and emotional wellbeing among employed men residing in urban (Athens city) than those in rural (outside of Athens city) settings.
Gender	
H4	Unemployment and financial hardship have a stronger negative connection mental health and emotional well-being among men than

	among women in Greece.
Family Status and Urban and Rural Communities	
H9	There will be no difference on mental health and emotional wellbeing among married unemployed with children and without children
H10	There will be no difference on mental health and emotional wellbeing among single, married with children and married without children in Athens and outside Athens?

6.10. Research Questions

The first research question asked, "*What are the dominant feelings of employed and unemployed participants in Athens and outside Athens?*" (*RQ1*). The primary feelings of the unemployed (N=1100), both in Athens and outside Athens, were those of **Love** (respectively 2.97, 3.13), **Uncertainty about future** (2.81, 2.96), **Social injustice** (2.68, 2.67), **Stress** (2.54, 2.68), **Pride** (2.53, 2.66), and **Trust in self** (2.51, 2.52). These emotions were reported, on average, to be felt "very often". Table 33 presents all means for unemployed participants according to location (Athens or outside Athens).

There was a statistically significant difference in the mean score of Nostalgia, with the unemployed living outside of Athens having significantly higher scores than those living in Athens. None of the other items satisfied the $p<.001$ level of statistical significance.

Table 33: Reported emotions of unemployed participants in Athens and outside Athens

	Athens	**Outside Athens**	**t**	**df**	**p**
	Mean	Mean			
Happiness	2.35	2.40	-.949	720.66	.343
Enjoyment	2.23	2.28	-.825	720.93	.410
Sadness	2.04	2.21	-2.963	1098	.003
Mourning sorrow	.94	.89	.709	678.65	.479

Panic	1.24	1.23	.157	692.58	.875
Fear	1.72	1.83	-1.744	679.82	.082
Anger	2.09	2.11	-.335	704.80	.737
Rage	1.58	1.47	1.466	700.51	.143
Love	2.97	3.13	-2.606	710.39	.009
Meanness	.99	1.02	-.453	699.84	.650
Jealousy	1.13	1.15	-.412	712.09	.680
Irritation	2.36	2.30	.982	689.52	.326
Nostalgia	2.11	2.36	-3.583	706.58	.000
Agony	2.18	2.18	-.050	651.38	.960
Despair	1.52	1.53	-.086	653.91	.932
Guilt	1.11	1.17	-.875	683.15	.382
Tranquillity	1.93	2.01	-1.276	693.32	.202
Apathy	1.23	1.13	1.464	690.15	.144
Boredom	1.59	1.64	-.681	1098	.496
Sleepiness	1.60	1.67	-.931	683.21	.352
Stress	2.54	2.68	-2.175	680.62	.030
Trust in self	2.51	2.52	-.190	672.12	.849
Determination	2.46	2.42	.541	680.97	.589
Pride	2.53	2.66	-1.770	707.99	.077
Life satisfaction	2.11	2.17	-.942	675.58	.347
Depression	1.13	1.19	-.844	676.56	.399
Uncertainty about future	2.81	2.96	-2.200	1098	.028
Social injustice	2.68	2.67	.109	676.46	.913
Loneliness	1.40	1.46	-.846	696.19	.398
Tiredness	2.09	2.27	-2.721	746.73	.007
Vanity of life	1.09	1.26	-2.255	675.41	.024

For those employed (N=1101), the common prevailing emotions reported in Athens and outside Athens were **Love** (respectively 3.21, 3.23), **Trust in self** (2.75,

2.66), **Pride** (2.70, 2.64), **Determination** (2.63, 2.68), **Social injustice** (2.50, 2.57). The emotions of love, self-trust, pride, determination, and social injustice were on average reportedly felt "very often" by both Athenians and those living outside of Athens. For those living in Athens, other primary feelings were **Happiness** (2.54), **Life satisfaction** (2.5) and **Tiredness** (2.55), and for those living outside of Athens, **Uncertainty about future** was on average "very often" felt. Table 34 summarizes the findings for employed participants in Athens and outside Athens.

Employed non-Athenians reported statistically significantly more Loneliness than did employed Athenians; the latter reported significantly more anger than non-Athenians, at the conservative level $p<.001$.

Table 34: Reported emotions of employed participants in Athens and outside Athens

	Athens	**Outside Athens**	**t**	**Df**	**p**
	Mean	Mean			
Happiness	2.54	2.44	2.125	926.64	.034
Enjoyment	2.44	2.36	1.652	918.98	.099
Sadness	1.91	1.97	-1.257	939.57	.209
Mourning sorrow	.73	.67	1.191	969.59	.234
Panic	.84	.89	-.888	913.64	.375
Fear	1.48	1.52	-.679	939.72	.497
Anger	2.04	2.01	.577	947.23	.564
Rage	1.35	1.17	2.773	970.86	.006
Love	3.21	3.23	-.298	978.38	.765
Meanness	.72	.70	.390	1005.30	.697
Jealousy	.81	.84	-.669	981.42	.504
Irritation	2.29	2.23	1.038	947.81	.300
Nostalgia	1.95	2.11	-2.461	988.96	.014

Agony	1.82	1.95	-2.110	953.61	.035
Despair	1.05	1.12	-1.208	939.62	.228
Guilt	1.13	1.18	-.888	928.91	.375
Tranquillity	2.16	2.08	1.414	908.81	.158
Apathy	.74	.86	-2.032	913.94	.042
Boredom	.96	1.08	-2.209	1099	.027
Sleepiness	1.42	1.31	1.829	947.15	.068
Stress	2.45	2.49	-.692	957.27	.489
Trust in self	2.75	2.66	1.681	1099	.093
Determination	2.63	2.68	-.952	958.19	.342
Pride	2.70	2.64	1.074	959.83	.283
Life satisfaction	2.50	2.46	.622	927.89	.534
Depression	.82	.97	-2.340	886.80	.020
Uncertainty about future	2.45	2.51	-.892	932.67	.373
Social injustice	2.50	2.57	-1.038	1099	.300
Loneliness	1.00	1.25	-3.645	1099	.000
Tiredness	2.55	2.49	.966	1099	.334
Vanity of life	.74	.90	-2.516	925.20	.012

In the second research question, "*What are the dominant feelings of unemployed participants with children and without children?*" (*RQ2*), the main emotions for both groups were those of **Love** (respectively 3.34, 2.87), **Stress** (2.68, 2.51), **Trust in self** (2.57, 2.50), **Uncertainty about future** (2.83, 2.87), **Social injustice** (2.71, 2.66), and **Pride** (2.68, 2.53). It should be noted that pride and love were felt even more often by unemployed participants with children. On average, unemployed participants with children (N=367) very often felt **Tiredness** (2.58). Table 35 presents the average emotions of unemployed participants with and without children.

Those with children had significantly more Sadness, Anger, Love, Nostalgia, and Tiredness. Those without children had significantly more Jealousy, Apathy, Boredom, and Loneliness.

Table 35: Reported emotions of unemployed participants with and without children

	Have children	No children	t	df	P
	Mean	Mean			
Happiness	2.49	2.30	3.177	781.75	.002
Enjoyment	2.28	2.29	-1.803	766.02	.072
Sadness	2.26	1.99	4.894	1036	.000
Mourning sorrow	.93	.90	.375	734.04	.708
Panic	1.22	1.24	-.216	748.46	.829
Fear	1.77	1.76	.105	723.81	.916
Anger	2.26	1.99	4.161	1036	.000
Rage	1.63	1.47	2.192	709.31	.029
Love	3.34	2.87	7.700	1036	.000
Meanness	.92	1.03	-1.834	763.86	.067
Jealousy	.91	1.25	-5.456	1036	.000
Irritation	2.31	2.33	-.318	737.19	.751
Nostalgia	2.35	2.09	3.699	1036	.000
Agony	2.26	2.11	2.234	1036	.026
Despair	1.51	1.51	.093	757.26	.926
Guilt	1.08	1.14	-.859	721.50	.391
Tranquility	1.93	1.97	-.540	746.00	.589

Apathy	.95	1.32	-5.412	748.81	.000
Boredom	1.39	1.71	-4.422	1036	.000
Sleepiness	1.63	1.62	.165	1036	.869
Stress	2.68	2.51	2.602	748.97	.009
Trust in self	2.57	2.50	1.035	731.71	.301
Determination	2.45	2.43	.279	754.64	.780
Pride	2.68	2.53	2.045	777.65	.041
Life satisfaction	2.25	2.06	3.072	1036	.002
Depression	1.26	1.10	2.285	1036	.023
Uncertainty about future	2.83	2.87	-.618	749.08	.537
Social injustice	2.71	2.66	.691	755.69	.490
Loneliness	1.20	1.52	-4.352	703.67	.000
Tiredness	2.58	1.92	9.602	1036	.000
Vanity of life	1.12	1.15	-.448	745.38	.654

6.6 Research Hypotheses

Independent samples t-tests were utilized for the examination of all ten research hypotheses. The independent-samples t-test is a powerful test that is identical to the analysis of variance test (ANOVA), with the only difference being in the number of response categories of the independent variable. In our case, the independent variable is split into two possible responses, i.e. is a dichotomical nominal variable. The t-test is an adequate inferential test for these Hypotheses. There is no need to perform more complex tests. For all tests, the conservative level of statistical significance $p<.001$ is adopted.

For hypothesis **H1**, **"Employed have better mental health and emotional well-being than those who are unemployed"**, employed participants scored statistically significantly higher on the Positive Emotions Factor. Conversely, the unemployed scored

significantly higher on the Negative Emotions and Trauma and Stress-related Emotions Factors (Table 36).

Table 36: Independent samples t-tests for hypothesis H1 with corresponding means and standard deviations

	unemployed		**employed**		**t**	**df**	**p**
	mean	sd	Mean	sd			
Negative Emotions	2.29	.6455	2.15	.5814	5.259	2199	≤.0005
Positive Emotions	2.41	.7108	2.60	.5672	-6.962	2199	≤.0005
Trauma-related Emotions	1.23	.6114	.94	.4989	12.310	2199	≤.0005

Therefore, there was a difference in emotion between the employed and unemployed participants (H1), with the employed scoring significantly higher on the Positive Emotions Factor, and the unemployed scoring higher on the Negative Emotions and Trauma and Stress-related Emotions Factors.

In **H2**, **"Employed residing in urban (Athens city) have better mental health and emotional well-being than those in rural (outside of Athens city) settings"**, employed participants were N=1101. T-test results found no statistical significance with regard to the three emotions factors (Table 37).

Table 37: Independent samples t-tests for H2 with corresponding means and standard deviations

	Athens		**Outside Athens**		**t**	**Df**	**p**
	mean	sd	Mean	sd			

Negative Emotions	2.13	.5764	2.18	.5878	-1.477	940.74	.140
Positive Emotions	2.62	.5645	2.57	.5705	1.378	946.57	.169
Trauma-related Emotions	.93	.4956	.95	.5041	-.589	942.42	.556

For ***H3***, **"Unemployed residing in urban (Athens city) have better mental health and emotional well-being than those in rural (outside of Athens city) settings"**, the unemployed were N=1100. There was no statistically significant difference between the two groups in the three emotions factors as per p<.001 (Table 38).

Table 38: Independent samples t-tests for H3 with corresponding means and standard deviations

	Athens		**Outside Athens**		**t**	**df**	**p**
	mean	sd	Mean	sd			
Negative Emotions	2.25	.6363	2.36	.6589	-2.715	663.50	.007
Positive Emotions	2.39	.7005	2.45	.7313	-1.344	658.70	.179
Trauma and Stress-related Emotions	1.213	.6121	1.24	.6106	-.292	686.08	.771

In ***H4***, **"Unemployment and financial hardship have a stronger negative connection mental health and emotional well-being among men than among women in Greece"**, females were found to score significantly higher on the *Negative Emotions Factor* (2.26) compared to males (2.14) (Table 39).

Table 39: Independent samples t-tests for H4 with corresponding means and standard deviations

	Males	**Females**	**t**	**df**	**p**

	mean	sd	Mean	sd			
Negative Emotions	2.14	.5940	2.26	.6262	-4.592	2198	.000
Positive Emotions	2.50	.6445	2.50	.6532	-.312	1646.15	.755
Trauma and Stress-related Emotions	1.09	.5974	1.08	.5652	.594	1553.48	.553

Therefore, females on average reported a higher incidence of negative emotions as per the Negative Emotions Factor (H4).

In ***H5***, **"There will be no difference on mental health and emotional well-being between unemployed women in urban (Athens city) and among unemployed women in rural (outside of Athens city) settings"**, unemployed female participants were N=688. There were no statistically-significant effects between unemployed women residing in Athens and outside of Athens (Table 40).

Table 40: Independent samples t-tests for H5 with corresponding means and standard deviations

	Athens		**Outside Athens**		**t**	**df**	**p**
	mean	sd	Mean	sd			
Negative Emotions	2.31	.6168	2.38	.6783	-1.188	470.25	.235
Positive Emotions	2.38	.6879	2.42	.7041	-.613	499.49	.540
Trauma-related Emotions	1.19	.6028	1.15	.5810	.907	525.30	.365

In ***H6***, **"There will be no difference on mental health and emotional well-being between employed women in urban (Athens city) and among employed women in rural (outside of Athens city) settings",** employed female participants were

N=724. Results of the independent samples t-tests showed that there was no statistically significant difference in the three emotions factors (Table 41).

Table 41: Independent samples t-tests for H6 with corresponding means and standard deviations

	Athens		Outside Athens		t	df	p
	mean	sd	Mean	sd			
Negative Emotions	2.17	.6117	2.22	.5946	-1.148	645.83	.251
Positive Emotions	2.63	.5999	2.57	.5860	1.408	643.95	.160
Trauma-and Stress-related Emotions	1.00	.5214	.96	.5137	.980	640.53	.328

In H7, **"There will be no difference on mental health and emotional wellbeing among unemployed men residing in urban (Athens city) than those in rural (outside of Athens city) settings",** unemployed male participants were N=412. Results showed that, as per p<.001 level of statistical significance, there were no statistically significant differences between the unemployed male participants from Athens and outside Athens (Table 42). The average score of Trauma-related Emotions was higher for participants from outside Athens, while Negative and Positive Emotions were higher for unemployed participants from outside Athens; however these differences were not statistically significant.

Table 42: Independent samples t-tests for H7 with corresponding means and standard deviations

	Athens		Outside Athens		t	df	p
	mean	sd	Mean	sd			
Negative Emotions	2.15	.6527	2.33	.6123	-2.503	187.92	.013

Positive Emotions	2.39	.7194	2.52	.7908	-1,523	164.30	.130
Trauma-related Emotions	1.28	.6229	1.45	.6313	-2.402	175.50	.017

In Hypothesis ***H8***, **"There will be no difference on mental health and emotional wellbeing among employed men residing in urban (Athens city) than those in rural (outside of Athens city) settings",** employed males were N=376. There was no statistically significant difference in the mean responses to the *trauma and stress-related Emotions Factor*, between Athenians and non-Athenians, as per p<.001 (Table 43).

Table 43: Independent samples t-tests for H8 with corresponding means and standard deviations

	Athens		**Outside Athens**		**T**	**df**	**p**
	mean	sd	Mean	sd			
Negative Emotions	2.05	.4948	2.10	.5629	-.993	284.99	.322
Positive Emotions	2.58	.4906	2.56	.5415	-.993	284.99	.322
Trauma-related Emotions	.80	.4138	.92	.4865	-2.497	277.81	.013

In ***H9***, **"There will be no difference on mental health and emotional wellbeing among married unemployed with children and without children"**, participants who were married or single accounted for 92.8% of the sample (N=2043). This group included the response categories "single", "single with children", "married", and "married with children. Results showed that there was no statistically significance, at the level p<.001, between those who were single and married, residing in Athens and outside Athens (Table 44).

Table 44: Independent samples t-tests for H9 with corresponding means and standard deviations

	Athens		Outside Athens		t	df	p
	mean	sd	Mean	sd			
Negative Emotions	2.18	.6132	2.25	.6142	-2.435	1554.00	.015
Positive Emotions	2.50	.6497	2.52	.6467	-.692	1561.91	.489
Trauma-related Emotions	1.09	.5845	1.08	.5665	.489	1596.00	.625

In the final hypothesis ***H10,*** **"There will be no difference on mental health and emotional wellbeing among single, married with children and married without children in Athens and outside Athens?"**, the subgroup of married and unemployed participants was N=384; of those, N=300 reported that they had children; N=79 reported to have no children. The two subgroups differed statistically significantly on the *Factor* of *Negative Emotions*. The result for the other two factors of *Positive Emotions* and *Trauma and stress-related Emotions*. Did not satisfy the level of p<.001. Married unemployed participants with children scored significantly higher on the negative emotions factor (Table 45).

Table 45: Independent samples t-tests for H10 with corresponding means and standard deviations

	Have children		No children		t	df	p
	mean	sd	mean	sd			
Negative Emotions	2.37	.6611	1.99	.6467	4.578	124.38	.000
Positive Emotions	2.54	.6794	2.32	.7397	2.383	115.02	.019
Trauma-related Emotions	1.09	.5764	1.25	.6138	-2.104	116.78	.038

Therefore, on average married unemployed participants with children reported more negative emotions, as per the negative emotions factor, than married unemployed participants without children (H10).

6.7 Discussion

There was a statistically significant difference in the degree of emotions felt between employed and unemployed participants, with the employed scoring significantly higher on the Positive Emotions Factor, and unemployed participants scoring higher on the Negative Emotions and Trauma and Stress-related Emotions Factors (H1). The unemployed who resided outside Athens did not show a statistically significant difference on the Emotions Factors (at $p<.001$) than their Athenian counterparts (H3), while females scored significantly higher on the Negative Emotions Factor than did males (H4). There was no difference between unemployed men residing in Athens and outside Athens on the three Emotions scales as per $p<.001$ (H7). The same was true for employed males residing in Athens and outside of Athens; their mean scores did not differ statistically significantly on the three Emotions scales at the level $p<.001$ (H8). Single and married participants who lived outside Athens also did not differ statistically significantly from single and married Athenians (H9).

For married and unemployed participants, those with children scored significantly higher on Negative Emotions (H10). The result for H10 should be treated with caution since the second of the comparison groups (married unemployed without children) had a small sample size of 79 participants. Finally, there was no statistically significant difference between the emotions Athenians and non-Athenians that were employed (H2), employed women (H6), or unemployed women (H5).

Results from the NEScale on the present sample of 2201 participants showed that the emotions reported to be felt very often were, in order of magnitude, love, uncertainty about the future, pride, self-trust, social injustice, determination, and stress. The sample sometimes felt happiness, tiredness, enjoyment, life satisfaction, irritation, nostalgia, anger, tranquility, agony, sadness, fear, and sleepiness. They rarely felt rage, boredom, despair, loneliness, guilt, panic, depression, apathy, jealousy, vanity of life, meanness, and mourning sorrow. A factor analysis performed confirmed the above groupings, extracting three factors that explained 43% of the observed variance. The factors were Negative Emotions (sadness, fear, anger, nostalgia, agony, stress, uncertainty about future, social injustice, tiredness), Positive Emotions (happiness, enjoyment, love, tranquility, trust in self, determination, pride, life satisfaction), and Trauma and stress-related Emotions (mourning sorrow, meanness, jealousy, guilt, apathy, boredom, sleepiness). Cronbach reliability was acceptable for all three factors (α=.85 to α=.68). Positive emotions were felt often; negative emotions were felt sometimes; and trauma and stress-related emotions were felt rarely by the sample.

The dominant emotions of 1100 unemployed participants were love, uncertainty about the future, social injustice, stress, pride and self-trust – for both Athens and non-Athens residents. The 1101 employed Athenians and non-Athenians reported as primary the feelings of love, self-trust, pride, determination and social injustice. Happiness, life satisfaction and tiredness were dominant for employed Athens residents; uncertainty about the future was dominant for employed non-Athenians (RQ1). Unemployed participants with children and without children both reported very frequent feelings of

love, stress, self-trust, uncertainty about the future, social injustice, and pride; the unemployed with children also reported high tiredness (RQ2).

Chapter 7: Test-retest (Study 3), Convergent & Discriminant (Study 4)

7.1 Introduction

Research on the relationship of emotions and unemployment has been hindered by the lack of a validated measure of emotion in relation to unemployment. The Nottingham Emotional Scale (NEScale) has been developed to examine and explore and generate new knowledge with a standard instrument for this purpose.

The three objectives were: (a) test-retest reliability, (b) convergent validity and (c) discriminant validity. To be more specific, in the present study, we adopted the conventional definitions of these terms: (a) test-retest reliability: testing the stability and reliability of an instrument over time, (b) convergent validity: to establish convergent validity, you need to show that measures that should be related are in reality related and (c) discriminant validity: to establish discriminant validity, you need to show that measures that should not be related are in reality not related (Lavrakas 2008).

For the assessment of test-retest reliability, a sample of 49 participants completed the NEScale across a 2,4 and 6-week interval. Specifically, test-retest reliability was assessed through Pearson correlations between the NEScale Positive, Negative and Trauma and stress-related Emotions subscales across the 2, 4 and 6-week interval. Moreover, 38 participants also completed the 28-item Brief Cope Scale, the 42-item Depression Anxiety Stress Scales (DASS-42), the 4-item Subjective Happiness Scale (SHS) Scale and the 5-item Satisfaction with Life Satisfaction Scale (SWLS).

Convergent validity (N=36) was examined by comparing mean scores of the Positive, Negative and Trauma and Stress-related emotions subscales of the NEScale

with the mean scores of the Brief Cope and DASS-42 scales; discriminant validity (34) was assessed through a comparison of the mean scores of the three subscales of the NEScale with the mean scores of the SHS and SWLS Scales.

7.2 Method

7.2.1 Population

The population of the study 3 and 4 is Greek people living in Greece.

7.2.1.1 Participants' Inclusion Criteria

In this study, the population is defined as:

a) men and women with age 25-65

b) being unemployed,

c) men and women with higher education (BA/BSc, MA/MSC, PhD or Postdoc)

11.2.1.2 Participants' Exclusion Criteria

Men and women with:

g) any long-term illness,

h) health problems or disability that, with or without the use of aids or medication, limits their daily activities,

i) self-employed (having their own business)

7.2.3 Recruitment Strategy

Three strategies utilized to enhance participant recruitment: 1) leverage existing social networks and personal contacts, 2) Job centres to identify potential participants, and (3) clear and comprehend recruitment materials that describe the purpose and the duration of the study (Joseph, Keller et al. 2016).

7.2.4 Procedure

For the completion of the NEScale, participants were asked to rank the extent to which they feel a series of 24 emotions on a 5-point Likert scale (summary-description if scale is included in Appendix 27). For all items, the minimum response provided was 1 ("I do not feel") and the maximum response was 5 ("I feel all the time"). Data and demographics (Appendix 20) were collected through the Bristol online surveys.

The respondents participated in test-retest phase contacted in person and received an information sheet about research's purpose (Appendix 17), and information sheet describing the research, informing about its exploratory aim of test and retest of the questionnaire and ensuring research's data confidentiality with the process of pseudonymization (Appendix 18) and Consent form (Appendix 19). Respondents of this study were given the following information: a) The study lasts for 6 weeks and they will be asked to fill in the questionnaire electronically in 2, 4 weeks and 6 weeks after the completion of the original NEScale 24-item questionnaire (Appendix 21). During test retest will be asked to fill in the Brief Cope Scale (Appendix 22), DASS-42 (Appendix 23), Subjective Happiness Scale- SHS (Appendix 24) and Satisfaction with Life Scale – SWLS (Appendix 25) through Bristol Online Surveys; all scales are translated and validated in Greek language (Appendix 26).

7.2.4.1 Description of the Scales

Not many questionnaires have been developed based on specific community. However, Brief Cope, SHS, SWLS are culturally validated to explore the coping strategies, psychological stressors, emotions and wellbeing of people in Greece.

Brief Cope: 28-item instrument that is used to measure a broad range of coping responses to specific difficulties. The Brief COPE inventory has 14 subscales ranging from problem-focused coping strategies to emotion-focused coping strategies that are suitable for use by anyone wanting to assess the coping strategies used during stressful events.

Depression, Anxiety and Stress-Scales (DASS-42): 42-item self report instrument for measuring depression, anxiety and stress. Clinicians can gain an accurate subjective assement of an individual's depression or stress levels and develop an individualized treatment plan to assist in resolving depressive, anxiety, and/or stress-related symptoms.

There is a growing literature that uses data on subjective well-being (SWB) to study macroeconomic determinants of life quality and re-count them to policy making. For example, Di Tella, MacCulloch, and Oswald (2001) use self-reported life satisfaction from the Euro-barometer surveys to evaluate the unemployment-inflation tradeoff.

Subjective Happiness Scale – SHS: 4-item instrument designed to measure subjective happiness.

Satisfaction with Life Scale –SWLS: 5-item instrument designed to measure global cognitive judgments of satisfaction with one's life.

7.2.5 Data Storage

Data was stored on a password protected university-affiliated research pilot study website, http://www.survey.bristol.ac.uk/ through Bristol Online Surveys services which was designed specifically for this study.

7.2.6 Ethical Considerations & Approval

This research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies

7.7 Results

7.7.1 Characteristics of the Sample

As can be seen below, most of the unemployed participants were female (86%), had a Bachelor's degree (71%), and were married with children (67%). Approximately half of the sample resided outside of Athens (51%), and the remaining half resided in Athens (49%). Table 49 presents this information.

Table 49: Gender, education, family status and residence of participants in the test-retest reliability, and convergent/discriminant validity studies

	Frequency (N)	Percentage (%)
Gender		
Female	42	85.7
Male	7	14.3
Total	49	100.0

Education level		
Bachelor's degree	27	71.1
Master's degree	11	28.9
Total	38	100.0
Family status		
Married with child/children	33	67.3
Married without children	1	2.0
Divorced with child/children	3	6.1
Single	12	24.5
Total	49	100.0
Place of residence		
Outside of Athens	25	51.0
Athens	24	49.0
Total	49	100.0

Additionally, the sample had a mean age of 36.7 years, ranging from 25 to 59 years of age. Their average period of unemployment was 34 months (almost 3 years), with a minimum period of 6 months and a maximum period of 120 months (10 years). Table 50 presents these characteristics.

Table 50: Age and unemployment in months of participants in the test-retest reliability, and convergent/discriminant validity studies

	Frequency (N)	Minimum	Maximum	Mean	Standard deviation
Age	49	25	59	36.65	8.447
Unemployment (months)	48	6	120	33.98	29.882

7.7.1.1 Missing Scores

A total of 52 unemployed participants were asked to participate in test-retest; 2had missing values and 1 participant dropped out during test retest leaving us with 49 participants. A total of 42 unemployed participants were asked to participate in convergent and discriminant validity. Of these 6 had missing values in convergent validity leaving us with 36 participants and 8 had missing values in discriminant validity leaving us with 34 participants.

7.7.2 Test-retest reliability

Bivariate Pearson correlations were performed, in a within-subjects design, between the mean scores of N=49 participants for the Positive, Negative and Trauma and stress-related Emotions subscales over a six-week interval. The results, which are presented in Tables 46, 47 & 48, show statistically significant and high positive correlations for all weeks, between the means of the positive subscales, between the means of the negative subscales, and between the means of the trauma and stress-related subscales (all $p \leq .0005$). For the Negative Emotions, correlations ranged from r=.8 to r=.93. For the Positive Emotions, Pearson correlations ranged between r=.74 and r=.92. Finally, for the Trauma and Stress-related Emotions, correlation coefficients ranged from r=.72 to r=.88.

The results below provide evidence of good test-retest reliability for the NEScale, in the 2, 4 and 6-week interval, for a valid sample of N=49.

Table 46. Test-retest reliability correlations for the 6-week interval Negative Emotions

		Week-1 Negative	Week-2 Negative	Week-4 Negative	Week-6 Negative
Week-1 Negative	Pearson Correlation	–	.838	.842	.798
	Sig. (2-tailed)	–	.000	.000	.000
	N	–	48	49	48
Week-2 Negative	Pearson Correlation	.838	–	.931	.887
	Sig. (2-tailed)	.000	–	.000	.000
	N	48	–	48	47
Week-4 Negative	Pearson Correlation	.842	.931	–	.887
	Sig. (2-tailed)	.000	.000	–	.000
	N	49	48	–	48
Week-6 Negative	Pearson Correlation	.798	.887	.887	–
	Sig. (2-tailed)	.000	.000	.000	–
	N	48	47	48	–

Table 47. Test-retest reliability correlations for the 6-week interval Positive Emotions

		Week-1 Positive	Week-2 Positive	Week-4 Positive	Week-6 Positive
Week-1 Positive	Pearson Correlation	–	.784	.773	.735
	Sig. (2-tailed)	–	.000	.000	.000
	N	–	49	49	48
Week-2 Positive	Pearson Correlation	.784	–	.909	.915
	Sig. (2-tailed)	.000	–	.000	.000
	N	49	–	49	48
Week-4 Positive	Pearson Correlation	.773	.909	–	.904
	Sig. (2-tailed)	.000	.000	–	.000
	N	49	49	–	48

Week-6 Positive	Pearson Correlation	.735	.915	.904	–
	Sig. (2-tailed)	.000	.000	.000	–
	N	48	48	48	–

Table 48. Test-retest reliability correlations for the 6-week interval Trauma and Stress-related Emotions

		Week-1 Intense	Week-2 Intense	Week-4 Intense	Week-6 Intense
Week-1 Intense	Pearson Correlation	–	.809	.802	.719
	Sig. (2-tailed)	–	.000	.000	.000
	N	–	48	47	49
Week-2 Intense	Pearson Correlation	.809	–	.868	.833
	Sig. (2-tailed)	.000	–	.000	.000
	N	48	–	46	48
Week-4 Intense	Pearson Correlation	.802	.868	–	.875
	Sig. (2-tailed)	.000	.000	–	.000
	N	47	46	–	47
Week-6 Intense	Pearson Correlation	.719	.833	.875	–
	Sig. (2-tailed)	.000	.000	.000	–
	N	49	48	47	–

7.8 Convergent and Discriminant validity

Regarding the convergent and discriminant validity of the NEScale, Table 49 presents Pearson correlations performed between the mean 6-week interval responses to the NEScale subscales of Negative, Positive and Trauma and stress-related Emotions, and the DASS-42, Brief Cope, SHS and SWLS Scales.

Results indicate that there was convergent validity with the DASS-42 Scale, for a valid sample of N=36. All correlations with the DASS-42 Scale were statistically significant (p<.003<.01) and almost exclusively high. In particular, correlations with the DASS-42 were high and positive for the Negative Emotions subscales; high and positive for the Trauma and stress-related Emotions subscales; and high and negative for the Positive Emotions subscales, with the exception of Week-1, where the correlation with Positive Emotions was of medium size.

There was also evidence for convergent validity between the NEScale and the SHS and SWLS Scales. All correlations between the NEScale Subscales and the SHS and SWLS Scales were statistically significant (*p<.01*, valid sample N=36). Most of these relationships were high correlations, with the SHS and SWLS Scales showing high and negative correlations with Negative Emotions; high and positive correlations with Positive Emotions; and medium-high negative correlations with Trauma and Stress-related Emotions.

Finally, there was evidence of discriminant validity between the NEScale and the Brief Cope Scale. Specifically, for a valid sample of N=34, the correlations of the NEScale Negative, Positive and Trauma and stress-related Emotions Subscales with the Brief Cope Scale were low and statistically non-significant (p>.22>0.5)- see Table 49

Table 49. Correlations of NEScale Subscales with DASS-42, SHS, SWLS and Brief Cope

		DASS-42	SHS	SWLS	Brief Cope
Week-1 Negative	Pearson Correlation	.715	-.595	-.503	.111
	Sig. (2-tailed)	.000	.000	.001	.527
	N	38	38	38	35

Week-1 Positive	Pearson Correlation	-.472	.764	.715	-.002
	Sig. (2-tailed)	.003	.000	.000	.993
	N	38	38	38	35
Week-1 Intense	Pearson Correlation	.630	-.441	-.426	.083
	Sig. (2-tailed)	.000	.006	.008	.637
	N	38	38	38	35
Week-2 Negative	Pearson Correlation	.763	-.588	-.553	.121
	Sig. (2-tailed)	.000	.000	.000	.495
	N	37	37	37	34
Week-2 Positive	Pearson Correlation	-.639	.702	.786	-.065
	Sig. (2-tailed)	.000	.000	.000	.711
	N	38	38	38	35
Week-2 Intense	Pearson Correlation	.739	-.520	-.423	.195
	Sig. (2-tailed)	.000	.001	.009	.268
	N	37	37	37	34
Week-4 Negative	Pearson Correlation	.671	-.614	-.566	.168
	Sig. (2-tailed)	.000	.000	.000	.334
	N	38	38	38	35
Week-4 Positive	Pearson Correlation	-.620	.661	.870	-.029
	Sig. (2-tailed)	.000	.000	.000	.868
	N	38	38	38	35
Week-4 Intense	Pearson Correlation	.588	-.469	-.487	.214
	Sig. (2-tailed)	.000	.004	.003	.224
	N	36	36	36	34
Week-6 Negative	Pearson Correlation	.658	-.546	-.616	.170
	Sig. (2-tailed)	.000	.000	.000	.338
	N	37	37	37	34
Week-6 Positive	Pearson Correlation	-.635	.583	.783	-.074
	Sig. (2-tailed)	.000	.000	.000	.676

	N	37	37	37	34
Week-6 Intense	Pearson Correlation	.616	-.558	-.462	.183
	Sig. (2-tailed)	.000	.000	.004	.291
	N	38	38	38	35

7.9 Discussion

The aim of Study 3 and Study 4 was to examine the test–retest reliability and convergent and discriminant validity of NEScale in unemployed participants. Results provided evidence of good test-retest reliability for the NEScale, as per the statistically significant and high positive correlations between the 2,4, and 6-week interval subscale data for Positive Emotions, for Negative Emotions, and for Trauma and Stress-related Emotions, ranging from r=.72 to r=.93 (valid sample N=47).

Results showed evidence of convergent validity between the NEScale Subscales and the DASS-42 Scale, with statistically significant and almost exclusively high correlations. These correlations were high and positive for Negative and Trauma and stress-related Emotions, and high and negative for Positive Emotions, with the exception of Week-1 Positive Emotions, where the correlation was medium positive (valid sample N=36).

Convergent validity was also found between the NEScale Subscales and the SHS and SWLS Scales. These scales showed high and negative correlations with Negative Emotions; high and positive correlations with Positive Emotions; and medium-high and negative correlations with Trauma and stress-related Emotions.

There was evidence for discriminant validity between the Brief Cope Scale and the NEScale. There was no significant relationship between the Brief Cope Scale and the NEScale 6-week interval Negative, Positive and Trauma and Stress-related Emotions Subscales. Correlations between those scales were low and statistically non-significant (valid sample N=34).

Chapter 8: What are the dominant feelings of employed and unemployed participants in Athens and outside Athens?

A significant number of scientific endeavours highlight the psychological meaning of paid employment and unemployment, share information and identify their emotional functioning and concerns on how they impact psychological health (Flint, Bartley et al. 2013, Winefield, Delfabbro et al. 2017). However, differences and similarities in emotion between employed and unemployed, emotional differences in rural and urban areas and the extent to which emotional wellbeing is altered are less clear.

For the completion of the NEScale reliability, employed (N=1101) and unemployed participants (N=1100) were asked to rank the extent to which they feel a series of 31 emotions on a 5-point Likert scale. For all items, the minimum response provided was 1("I do not feel") and the maximum response was 5 ("I feel all the time").

For the sample of N=2201 participants, the majority were female (64%, N=1412) and males comprised 36% (N=788); there was one missing value. Data and demographics (Appendix 11) were collected through the Bristol online surveys and paper -based form collection. Respondents were not consistent with the age group (25-65 years old) of this research design since the mean age was 35.8 years, with a standard deviation of 8.82; the minimum age was 19, the maximum age was 65 years old. However, the quality of the survey data as related to the age of respondents did not change the nature of any of the age-related findings. Specifically, the ratio data for age, with the normal distribution curve superimposed; there is a skew of the data histogram with the ages of 25 to 28 years appearing more than the normal distribution would predict (Figure 9). Moreover, as to their geographic location, 64% resided in Athens (N=1405), and 36%

lived outside Athens (N=796). As to participants' educational level, the majority reported that they had received a BA/BSc (83.6%, N=1839). Fifteen percent had been awarded an MA/MSc (15.2%, N=334); 1.1% had received a PhD (N=24); and four participants had postdoctoral academic work (0.2%, N=4).

Regarding unemployment duration, N=911 valid responses were received. An additional N=169 responses were invalid since they did not specify month or year and were excluded from the data. The mean unemployment duration was 21.24 months (1.77 years), with a standard deviation of 20.93 months (1.74 years). The minimum length of unemployment was one month, and the maximum was 19 years (228 months). The mean duration of employment for the total sample was 10.1 years or 121.31 months, with a standard deviation of 8.64 years (103.74 months). The minimum reported duration was one month, and the maximum was 43 years. It is noted that overall 1032 valid responses were received. Given that item 5a ("employment duration in months") is an open-ended question, some responses were invalid and were excluded from the data.

With respect to family status, almost half of the sample were single (46.9%, N=1033), and 45.9% were married (N=1010); 6.4% were divorced (N=141) and 0.8% were widowed (N=17). Specifically, 45.8% were single (N=1009) and 1.1% were single with children (N=24); 37.9% were married with children (N=835) and 8% were married without children (N=175); 5.2% were divorced with children (N=114) and 1.2% were divorced without children (N=27); and 0.7% were widowed with children (N=15), and 0.1% were widowed without children (N=2). The marriage period for the married had a mean duration of 10.31 years (123.7 months). For the divorced, the mean divorce period had been 6.64 years (79.7 months). The time since spouse's death of N=20 participants

had lasted on average 6.55 years. Only 5,4% of the sample had long-term illnesses, health problems or disabilities that limited their daily activities (N=118).

There were no missing values or invalid responses for the Nottingham Emotional Scale (NEScale) emotion items (N=2201) reliability. The following tables present the reported emotions of unemployed participants (Table 51) and employed participants (Table 52) in Athens and outside Athens.

Table 51 Reported emotions of unemployed participants in Athens and outside Athens

	Athens	Outside Athens	T	Df	p
	Mean	Mean			
Happiness	2.35	2.40	-.949	720.66	.343
Enjoyment	2.23	2.28	-.825	720.93	.410
Sadness	2.04	2.21	-2.963	1098	.003
Mourning sorrow	.94	.89	.709	678.65	.479
Panic	1.24	1.23	.157	692.58	.875
Fear	1.72	1.83	-1.744	679.82	.082
Anger	2.09	2.11	-.335	704.80	.737
Rage	1.58	1.47	1.466	700.51	.143
Love	2.97	3.13	-2.606	710.39	.009
Meanness	.99	1.02	-.453	699.84	.650
Jealousy	1.13	1.15	-.412	712.09	.680
Irritation	2.36	2.30	.982	689.52	.326
Nostalgia	2.11	2.36	-3.583	706.58	.000
Agony	2.18	2.18	-.050	651.38	.960
Despair	1.52	1.53	-.086	653.91	.932
Guilt	1.11	1.17	-.875	683.15	.382
Tranquility	1.93	2.01	-1.276	693.32	.202

Apathy	1.23	1.13	1.464	690.15	.144
Boredom	1.59	1.64	-.681	1098	.496
Sleepiness	1.60	1.67	-.931	683.21	.352
Stress	2.54	2.68	-2.175	680.62	.030
Trust in self	2.51	2.52	-.190	672.12	.849
Determination	2.46	2.42	.541	680.97	.589
Pride	2.53	2.66	-1.770	707.99	.077
Life satisfaction	2.11	2.17	-.942	675.58	.347
Depression	1.13	1.19	-.844	676.56	.399
Uncertainty about future	2.81	2.96	-2.200	1098	.028
Social injustice	2.68	2.67	.109	676.46	.913
Loneliness	1.40	1.46	-.846	696.19	.398
Tiredness	2.09	2.27	-2.721	746.73	.007
Vanity of life	1.09	1.26	-2.255	675.41	.024

Table 52 Reported emotions of employed participants in Athens and outside Athens

	Athens	**Outside Athens**	**T**	**Df**	**p**
	Mean	Mean			
Happiness	2.54	2.44	2.125	926.64	.034
Enjoyment	2.44	2.36	1.652	918.98	.099
Sadness	1.91	1.97	-1.257	939.57	.209
Mourning sorrow	.73	.67	1.191	969.59	.234
Panic	.84	.89	-.888	913.64	.375
Fear	1.48	1.52	-.679	939.72	.497
Anger	2.04	2.01	.577	947.23	.564
Rage	1.35	1.17	2.773	970.86	.006
Love	3.21	3.23	-.298	978.38	.765
Meanness	.72	.70	.390	1005.30	.697
Jealousy	.81	.84	-.669	981.42	.504

Irritation	2.29	2.23	1.038	947.81	.300
Nostalgia	1.95	2.11	-2.461	988.96	.014
Agony	1.82	1.95	-2.110	953.61	.035
Despair	1.05	1.12	-1.208	939.62	.228
Guilt	1.13	1.18	-.888	928.91	.375
Tranquility	2.16	2.08	1.414	908.81	.158
Apathy	.74	.86	-2.032	913.94	.042
Boredom	.96	1.08	-2.209	1099	.027
Sleepiness	1.42	1.31	1.829	947.15	.068
Stress	2.45	2.49	-.692	957.27	.489
Trust in self	2.75	2.66	1.681	1099	.093
Determination	2.63	2.68	-.952	958.19	.342
Pride	2.70	2.64	1.074	959.83	.283
Life satisfaction	2.50	2.46	.622	927.89	.534
Depression	.82	.97	-2.340	886.80	.020
Uncertainty about future	2.45	2.51	-.892	932.67	.373
Social injustice	2.50	2.57	-1.038	1099	.300
Loneliness	1.00	1.25	-3.645	1099	.000
Tiredness	2.55	2.49	.966	1099	.334
Vanity of life	.74	.90	-2.516	925.20	.012

The Nottingham Emotional Scale (NEScale) findings for both employed and unemployed populations suggests that participants of this research view life and experiences with a positive outlook. Findings postulate that positive emotions during long-term financial hardship and unemployment may signpost psychological resilience in individuals. Under that perspective, the NEScale can assess individuals' healthy mental health status and well-being by the degree to which positive feelings outweigh negative and trauma and stress related emotions.

What NEScale results show us is that both unemployed and employed participants very often feel three common positive emotions. The emotion “Love”; unemployed in Athens (2.97) and outside Athens (3.13), employed in Athens (3.21) and outside of Athens (3.23); the emotion “Trust in Self”: unemployed in Athens (2.51) and outside Athens (2.52), employed in Athens (2.75) and outside Athens (2.66); the emotion of “Pride”; unemployed in Athens (2.53) and outside Athens (2.66). Participants share one common negative emotion, “Social Injustice”: unemployed in Athens (2.68) and outside Athens (2.67), employed in Athens (2.50) and outside Athens (2.57).

Moreover, unemployed inside and outside Athens feel the negative emotions “Uncertainty about the future” and “Stress”, while unemployed outside Athens showed higher scores on six negative emotions: “Sadness”, “Nostalgia”, “Stress”, “Uncertainty about the future”, “Tiredness” and “Vanity of Life”. Unemployed outside Athens’ higher score was on the positive emotion “Love”. Employed in Athens more often feel the two positive emotions “Happiness”, “Life Satisfaction”, and the negative emotion “Tiredness”, while employed outside Athens feel more often the negative emotion “Uncertainty about the future”.

Considering the pervasive effects of financial hardship that people have experienced over the last 10 years and the increasing rate of unemployment all over Europe, it is not surprising that research has started to focus on how people respond to financial crisis. Thus, the objective of NEScale is to explore the emotional effects of financial hardship and unemployment and predict possible negative emotional outcomes to the future. Surprisingly, NEScale findings implied a changing of focus in future

research. Findings set a new direction for research on what we need to enhance instead of what we need to avoid for better well-being and mental health.

Beyond the financial damage many will think that when participants were asked about specific emotions experienced, they would probably have mentioned negative emotions. On the contrary, the role of positive emotions in this research served as markers for optimal well-being (Fredrickson 2001).

Positive emotions are known to co-occur alongside negative emotions during stressful situations (Folkman and Moskowitz 2000). The findings of this research support the broaden-and-build theory of positive emotions and suggest that capacity to experience positive emotions especially through financial hardship reduces the focus on negative emotions and enhances psychological resilience, emotional well-being and coping. Although this research found support between positive emotions and coping we need to mention that our sample for the Brief Cope Scale had thirty-four participants (N=34), Life Satisfaction-SWLS thirty-six participants (N=36) and Subjective Happiness Scale-SHS thirty-six participants (N=36) is not sufficient large sample size, thus we need to consider if the size of sample renders a representative sample. Under that perspective, it is not possible to have sufficient power to draw valid conclusions on whether positive emotions serve a purpose in the ability of resilient individuals to cope with stressful situations or they are just by-products of psychological resilience.

There are studies that demonstrate that resilient people use positive emotion approaches to achieve rheostat to physiological stress responses and by finding positive meaning in stressful situations (Tugade, Fredrickson et al. 2004, Tugade and Fredrickson 2004). In support of coping several studies have shown that positive emotions have a

soothing functional role both under normal conditions and under conditions of stress and act as dynamic components in coping despite the nature of hard conditions (Levenson 1999, Folkman and Moskowitz 2000, Folkman 2008).

Emotion research often explores, links and explains the function of specific emotions to the idea of specific action tendencies (Frijda, Kuipers et al. 1989, Tooby and Cosmides 1990, Lazarus 1991, Levenson 1994, Oatley and Jenkins 1996); recognizes the influence of emotion which give san individual the tendency to perform particular actions and decide whether or not to act as a strategy to cope with life's challenges. The key idea of the specific action tendency viewpoint is that emotions include such changes that increase survivorship or reproduction by addressing some specific challenges or opportunities given by the environment (therefore emotions are evolutionarily adaptive). These are the actions that likely worked best for human ancestors to survive life-or-death conditions (Tooby and Cosmides 1990) and avoid danger (Adler, Rosen et al. 1998). For example, the basic emotions of anger and fear have survival value, with different biological profiles, and with the functional perspective that distinct emotional experiences appear to trigger temporally-patterned adaptive biological processes to activate energy in response to anger and to promote withdrawal in response to fear (Moons, Eisenberger et al. 2010).

Favour was given to negative emotions in theory building and hypothesis testing. A possible reason might be that negative emotions are more noticeable to describe despite their variation. A consequence from this is that positive emotions research was considered just "a science of happiness" with either side-lined or controversial research

present for many decades. Additionally, positive thinking was considered a folk wisdom of cultural inheritance (Christensen and Turner 1993).

Positive emotions do not fit the existing models of emotions within the biological profile of survival where evolution sets the stage at the beginning of the play and moves offstage once the play is in motion. Positive emotions, because they lack autonomic nervous system (ANS) profile, are missing from the six main theories of Emotion: (1) the Evolutionary theory of emotion which proposed that emotions evolved because they were adaptive and permitted humans and animals to survive and reproduce (Hammond 2006); (2) the James-Lange theory of emotion in which physiological thalamic theories of emotion have a cause-and-effect relationship (Cannon 1931); (3) the Cannon-Bard Theory of Emotion in refutation of the James-Lange theory and suggests that emotions and bodily changes occur simultaneously; (4) the Schachter-Singer Theory, a two-factor theory of emotion which states that physiological arousal in different emotions is entirely the same and we label our arousal according to the cognitions we have available (Schachter and Singer 1962); (5) the Cognitive Appraisal Theory; individuals' appraisal of a situation determines their emotional response to it (Scherer 2005); and (6) the Facial-Feedback Theory of Emotion; skeletal muscle feedback from facial expressions plays a causal role in regulating emotional experience and behaviour (Buck 1980). Nevertheless, the emphasis on specific action tendencies linked with ANS contributed to there being limited research on positive emotions (Fredrickson and Branigan 2005) .

A defence of that might be that relative to negative emotions, positive emotions are few and rather confused and inconsequential (Ellsworth and Smith 1988a, De Rivera, Possel et al. 1989). On the same lines, positive emotions were not often the priority of

research studies (in some of Paul Ekman's early observations, five out of six of them are negative) and most of the prior studies of autonomic responding were not designed to study the autonomic aspects of positive emotion but instead focussed on other behavioural and physiological responses (Ursin 1960, Engebretson, Matthews et al. 1989). Support of this is that prior studies of autonomic responding in positive emotions have few limitations. Many studies do not include a neutral control condition against which the positive emotion condition (s) can be compared (Ekman, Levenson et al. 1983, Neumann and Waldstein 2001, Tsai, Chentsova-Dutton et al. 2002). Also, many prior studies assessed variables that limit detection of complex ANS responses by confounding the effects of multiple systems (Stemmler, Grossman et al. 1991, Fredrickson 1998).

The framework of research mostly remains the same in the present day (Burns, Quartana et al. 2007, Ordoñana, González-Javier et al. 2009, Shvil, Rusch et al. 2013, Shirai and Suzuki 2017) and we do not have sufficient studies on the biological profile of positive emotions today. As a result, we lack any novelty in research work on positive emotions and their possible missing links between their biological measures and psychosocial factors. Certainly, the answer of what positive emotion is and what its main function is is troublesome, and the tendency to simplify data and principles in psychological research might inhibit the very phenomena that positive emotions wish to explain.

Thus, as a framework of discussion, we will focus on the three positive common emotions, “Love”, “Pride” and “Trust in me” that this research’s data found, in an attempt to explore how they fit the data we consider as groundwork their identity (elicitors), and

their functionality (action tendency) to express our thoughts and findings in a clear way and enhance the access to the important function they serve in our coping with stressful events. The same applies for the one common negative emotion, “Social injustice”, found in data.

Love

Love was among the three positive emotions that given the highest rating among the 2201 participants (employed and unemployed) in this research. We will not highlight the theme that love can surpass any hardship, rather we will borrow the essential characteristics of basic emotions theoretical framework which NEScale is based on, and consider that love as a basic emotion involves (a) automatic appraisal (Carter 1998), (b) is bio-evolutionary determined (Zeki 2007), (c) can be positive or negative (Hendrick, Hendrick et al. 1988), (d) appears to be recognizable across cultures (Shaver, Morgan et al. 1996), and (e) is free from blending with other emotion categories since basic emotions differ in physiology from one another (Zeki 2009).

Love was absent from lists of basic emotions for many decades of research since research was arguing for its criteria of basicness (Shaver, Morgan et al. 1996) and it was first introduced as a basic emotion through Fredrickson and Levenson’s theory (1998**).** This theory suggests that positive emotions including love assist to broaden an individual’s thought–action repertoire, structuring in that way individual’s physical, intellectual, and social resources for maintaining and improving individuals' chances of survival as they interact with the external environment. It later became the pioneer for the broaden-and-build theory suggesting that positive emotions expand one's

responsiveness and encourage new, diverse, and exploratory thoughts and actions (Fredrickson, Mancuso et al. 2000).

Elicitors: as an emotion of affection and interest (Gerhardt 2014), love can be felt toward specific individuals such as one's mother, one's father, siblings, lover or child (Levenson 1994) and in close social relationships such as friends and acquaintances (Oatley and Jenkins 1996). Following Levenson and Gottman's (1983) and Izard's (1977) point of view, we suggest that love experiences include other positive emotions as well such as happiness, enjoyment, tranquility and life satisfaction. As Izard (1977) mentioned it, "acquaintances or friends renew your interest by revealing new aspects of themselves and the resulting increase in familiarity (deeper knowledge of the person) brings joy [and contentment]. In lasting friendships or love relationships this cycle is repeated endlessly", supporting in that way the idea of love bonds through family and close relationship.

Action tendency (AT): Love as emotion seems to associate its functions with the biological challenges of reproduction (family relationships) and opportunity (close relationships). Thus, this research contradicts the traditional concept that positive emotions do not have specific action tendencies, similar to the function of negative emotions in life -threatening situations (protecting from danger) and suggests that love's specific action is the inbuilt homeostatic regulation mechanism (seeking opportunity). Specifically, this research suggests that love as a regulation mechanism has restorative properties to support mutual homeostasis, growth, reproduction, to adapt to highly emotive situations and it has the ability to literally heal a "broken heart" (Danalache, Gutkowska et al. 2010, Danalache, Yu et al. 2014). Additionally, in support of this is the

study of the MAOA gene that predicts happiness to women (Chen, Pine et al. 2013) and the COMT gene that is located on chromosome 22q11 and encodes the COMT protein, one of the major enzymes to degrade catecholamines such as dopamine and norepinephrine with well-being (Liu, Gong et al. 2017), illustrating in that way how genes interact with positive emotions and that positive emotions also evolved for their adaptive value in dealing with the fundamental life-tasks of daily living. There is also evidence that positive emotions improve immune system functioning; the "tool" the body uses to interact with the external environment (Salovey, Rothman et al. 2000).

However, this research does not consider love as just a simple healer for the persistent effects of negative emotions; it rather suggests that, as expected by the Greek physician Hippocrates, positive emotions and healthy inferences may be linked through numerous pathways for the improvement of behaviour and mental catharsis (Conrad 2010). The direct effects on physiology, especially the immune system that illustrates how cells from different individuals respond to infection by measuring gene expression both during the early and late immune response (Kim-Hellmuth, Bechheim et al. 2017) explicitly how the immune and emotional systems mirror each other in the way they function. The affective immunology research framework that focusses on emotional disorders, genetics and immune responses agrees with this research's reference that love as a basic emotion is a biologically pre-wired evolutionary determined feature that cannot be learned as Izard suggested in his theory of basic emotions (Izard 1992, Izard 2011). That means that people cannot learn to love and cannot learn how it is to love. This can be seen in psychopathology where a keystone of the disorder is the absence of normal

human emotional experience (Porter 1996, Skeem, Andershed et al. 2007). Adding to the evidence is bipolar disorder, where emotional experience is marked by experiences of excessive mania or euphoria alternating with depression (Fredrickson 1998, Mondimore 2014); feelings fluctuate of their own accord since the homeostatic regulation mechanism is missing and its absence causes problems with emotional temperature regulation. Therefore, any psychological treatment trying to change the way individuals think and behave with a systematic and structured approach to achieve happy relationships and learn how to give and receive love does not have long-term results. For example, cognitive behaviour therapy (CBT) is not effective in reducing symptoms in schizophrenia or in preventing relapse and it is ineffective in reducing relapse in bipolar disorder (Lynch, Laws et al. 2010). In mindfulness interventions the limitations in terms of sample size and the absence of a control group cannot demonstrate effectiveness for depression and varied mental health problems (Ma and Teasdale 2004, Radford, Crane et al. 2012). On the same lines, eye movement desensitization and reprocessing (EMDR) is ineffective treatment for lessening trauma symptoms (Van den Hout and Engelard 2012) and treating posttraumatic stress disorder (Rosen 1999) and, concerning imaginal exposure (IE) and cognitive therapy (CT), neither resulted in complete treatment of chronic posttraumatic stress disorder (PTSD) (Tarrier, Pilgrim et al. 1999).

In more simple words, love as a basic positive emotion with is homeostatic regulation system functions as a “life-support” tool (the phrase "life support" refers to the medications and equipment used to keep people alive in medical situations) that enhances the life survival scenario situation and unfortunately cannot be learned.

However, while the sequence of DNA may not be affected by the environment, the way genes work (gene expression) can be (LeDoux 2002, Cloud 2010). Recent research evidence showed that gene-environment interactions (GxE) can have lasting consequences on brain structure and function (Zannas 2018). Additionally, gene-environment interactions (GxE) research may facilitate our understanding of environmental influences that boost the gene expression of positive emotions. Psychosocial factors (environment) that strengthen positive emotions and improve individuals' psychological health and resilience at the moment include social emotional learning (SLE) programmes at school where children demonstrated significantly improved social and emotional skills, attitudes, behaviour, and academic performance (Durlak, Weissberg et al. 2011).

Moreover, savouring and establishing close relationships with loved ones seems to build and strengthen individuals' social and personal resources. Close relationships seem to be a product of natural processes that allow people to reproduce (Buss and Schmitt 1993, James and Ellis 2013, Hoppe, Frittsche et al. 2017) and thus to survive. These social bonds as adaptive function were not only for reproduction but were also likely to protect from a possible attack, thus searching for the company of others was essential element of adaptive behaviour (Brown and Brown 2009, Silk 2009).

There is little agreement today about the terms we use when discussing close relationships, thus when searching the literature, two fields, attraction and close relationships; and friendship and close relationships seem to dominate the research (Heine 2015). However, two key elements that caught our attention through the literature search and which appear to link close relationships with their evolutionary adaptive

function are: (a) interdependence (Rusbult and Buunk 1993) and (b) trust (Rempel, Holmes et al. 1985). This agrees with the theory of human relatedness (THR) which addresses a universal and profound human concern, to create and keep relatedness to others, objects, environments, society and self (Hagerty, Lynch-Sauer et al. 1993). From this perspective, people are viewed as relational beings, and involvement with external referents as sense of their belonginess protects their mental health, facilitate their social adaptation (Anant 1966, Anant 1967, Anant 1969) and become resilient to stress (Cutrona and Russel 1983). Further evidence based longitudinal research is essential to identify potential positive protective psychosocial factors, such as emotional awareness, expression/processing and social support, that seem to contribute to the development of helpful coping strategies.

Trust in Me

Many would imagine that economic crisis and unemployment in Greece has had profound effects on citizens' psychology of self. On the contrary, findings suggested that crisis created only a financial and not self-worth meltdown in Greece. Participants' "Trust in me" score on NEScale suggests that they have a clear sense of self; they did not underachieve to protect their self-worth and preserve a sense of the world as a safe place for them. On the hypothesis that participants have been subordinated, they have resisted that subordination.

Elicitors: Brothers (1982) defined self-trust as "the representation of the self as able to cope with the world and itself". Clearly this wide definition avoids any reference to self-beliefs such as optimism and avoids society characteristics such as opportunities.

This definition perfectly reflects the variety of perceptions of social reality and of the very different individuals' experiences capturing in that way the sense of autonomy and self-respect (Govier 1993) that self-trust entails, and participants showed on their NEScale's score.

Action-tendency: the idea of autonomy has been challenged by psychology, sociology and politics either as regulation by the self, either as a specific cultural value, or pre-social role in political notion. However, Jaggar's (1985) criticism on liberal political theory, arguing that there is no pre-social human being "an individual can and should determine and define his or her own emotions and mental states. But "(i)f individual desires and interests are socially constituted …the ultimate authority of individual judgment comes into question" which agrees with this research finding on the "trust in me" construct, which opposes heteronomy as an action that is influenced by a force outside the individual.

A similar perspective with the concept of internal and external locus of evaluation can be found in the person-centred personality theory of Carl Rogers and self-determination theory within the emergent field of positive psychology.

The guiding principle of a client-centred approach is based on the idea that individuals have an inherent tendency toward growth, development, and optimal functioning. *"It is possible to explain a person to himself, to prescribe steps which should lead him forward, to train him in knowledge about a more satisfying mode of life. But such methods are, in my experience, futile and inconsequential. The most they can accomplish in some temporary change, which soon disappears, leaving the individual more than ever convinced of his inadequacy"* (Rogers 1961). The relationship with their

selves and important others is the only responsible relationship for any change that occurs. The autonomy of total independence and self-reliance sounds unrealistic but according to Gendlin and Zimring individuals with a structure-bound manner of experience are successful in keeping their experience unaffected by the actualities of the present (Rogers 1961). Research participants seem to achieve differentiation of personal meanings in experience and support Gendlin and Zimring's structure-bound concept. Moreover, in accordance with their most frequent score on positive emotions indicate that they also are successful in maintaining a healthy emotional well-being. This reminds us of Izard's basic concept of emotion, that any experience that is inconsistent with self-structure obliging individuals to deny or distort their awareness of their needs results in psychological disturbance (Cicchet, Ackerman et al. 1995); on the contrary, participants managed to be aware and consistent with their self-structure needs. Additionally, participants' "trust in self" score connects with the idea that the adaptive nature of emotions clearly depends on individuals' inherent motivational characteristics that guide their thinking and behaviour (Izard 1977, Izard, King et al. 2008) and are evolutionary enabled to adapt to environmental challenges as Ekman and Cordaro suggested in their theory of basic emotions (2011).

The notion of self-trust and perceived control over life events has been found to be related to well-being (Lutgendorf, Vitaliano et al. 1999, Suominen, Helenius et al. 2001). However, its psychological structure and coping-relevant potential is as yet unclear.

Pride

Pride is the third most common positive emotion that participants ranked highly. Current scales of pride refer to pride as a national or patriotism feeling (the positive affect that the public feels towards their country) and, interestingly, national identities studies include most European countries but Greece is not among them (Smith and Seokho 2006) despite her rich literature and mythology (such as Oedipus The King, Antigone, and The Story of Phaethon in Ovid's Metamorphoses) on pride . For various reasons, self-concept studies have not explored yet to what extent the self and others in the experience of pride serve as an adaptive emotion. However, like the basic emotions pride is associated with a distinct, universally recognized, nonverbal expression which is natural and artless during experiences of pride, rapid onset, short duration, unbidden occurrence, automatic appraisal, and coherence among responses (Ekman 1992, Tracy and Robins 2004). By nature, pride is a rich and complex emotion and belongs to various classes of emotions such as social adaptive emotions (Williams and DeSteno 2009), high-order emotions that require complex cognitive capacities with constant, unavoidable considerations in our voluntary, motivated behaviour (Wesfeld 2002), clinically relevant emotions that influence functional outcomes both generally, as well as pathologically (Macaulay and Cohen 2014) and moral emotions (Tangney, Stuewig et al. 2007). In a basic search of literature (PsycInfo database finds 488 articles, GoPubMed finds 416 articles, JSTOR finds 47,595 and ScienceDirect with 52,903) its complex research background confuses and inhibits the ability to make a judgment on the nature of pride in a coherent and logical way.

Elicitors: Pride, regardless of which class of emotions to which it belongs, requires awareness of the self; thus it has been described as a self-conscious emotion, involving a self-evaluative judgement against a goal or standard, motivating and regulating thoughts, feelings and behaviour (Campos 1995, Fischer and Tangney 1995). This is in accordance with many theorists' proposal that pride entails the ability to process information and evaluates what is right or wrong (Lewis, Sullivan et al. 1989, Holodynski and Kronast 2009). Pride has no interpersonal reference as the taxonomy of emotions (Storm and Storm 1987) categorized it which means that pride is not an effect response from a person or a group. It is an independent self-construal emotion and reflects the pragmatic need to communicate about feelings, one's own and others (Neumann 2009). Although pride was not on the list of the four models of basic emotions due to expression-focussed approach that was established since the 1960s with Ekman and Izard, studies of the last decade confirm its basic ontogenetic nature (Azar 2006). Nevertheless, it was already mentioned by Darwin (Darwin 1872) that pride is universal and belongs to the mix of blending inheritance "Of all the … complex emotions, pride, perhaps, is the most plainly expressed. A proud man exhibits his sense of superiority over others by holding his head and body erect … and makes himself appear as large as possible".

Pride is considered to have two faces in the literature (Tracy and Robins 2007). Authentic (or beta) pride focuses on behaviour to be proud of and hubristic (or alpha) pride focuses on self to be proud of. Authentic pride concerns achievements and mastery and hubristic refers to arrogance, grandiosity, and superiority (Tracy, Robins et al. 2007).

Interestingly, due to personality characteristics, not all people can experience pride and due to culture not all people can experience the same type of pride. For example perfectionists are unable to experience pride as they are prone to experience shame and guilt (Stoeber, Harris et al. 2007). In a similar way, Mosquera et al.'s (2000) study found differences between Dutch individuals and Spanish in term of honour-related values. Netherlands have more individualistic values than people in Spain who have more honour-related values.

Action-tendency (AT): There are social, cognitive and neural mechanisms with pride. Its interesting nature can focus simultaneously both on the self and on others. Its duality makes it a detector of our values through society and culture (Haidt 2003, Nakamura 2013), and serve as an adaptive emotion within the context of social interaction (Williams and DeSteno 2009). The neuropsychological evidence for its discrete neural networks in social emotions lies first on the amygdala that contributes to the identification of the social emotion, and secondly on the discrete regions of the prefrontal cortex that translates those emotions into information that can be used to enable and achieve social interactions (Krendl and Heatherton 2009).

Pride is a psychologically healthy emotion. According to research findings, pride is found to be low in individuals who have depression, psychoticism, and general psychopathological symptoms. Likewise, research confirms that pride as a positive self-conscious emotion does not have a relationship with psychopathology (Motan 2007). The loss of hubristic (self) pride, under circumstances of humiliation and threat to self-worth, can provoke aggression and antisocial behaviour (Baumeister, Smart et al. 1996). Studies confirm authentic (behaviour) pride is positively related to successful social

relationships and mental health, whereas hubristic pride is positively related to aggression and other antisocial behaviours (Tracy, Joey et al. 2009). Likewise, hubristic pride seems to have the opposite relationship with somatoform symptoms; a number of unclear physical symptoms that cannot be attributed to medical conditions, rather those symptoms are viewed as a defence against psychological pain; the influence of the mind on bodily organs (Lipowski 1988).

The defining line between virtue and vice can be given by the Greek philosopher Aristotle who considered pride as the "crown of the virtues" (Ethics 1123a34-1125a35). Pride for Aristotle is not just a feeling, it is an accurate awareness that one possesses some excellence through his behaviour and accomplishments (as authentic pride mentions) not shared by many, which enables its holder "to stand out among the crowd". Importantly, Aristotle considered that the humble man does an injustice to himself insofar as he deprives himself of that which is his due, which is similar with participants high scores on "Pride" showing that the Greek economic depression reduced their quality of life in many different ways but they showed resilience towards obstacles or difficulties (Aristotle B΄1104a).

Social injustice

Social injustice is the only negative emotion of the four common emotions found on employed and unemployed participants scores, showing that if any experience is erratic a feeling of social injustice emerges. This is in accordance with Merton's strain theory in which he links pressures from larger structural arrangements with the creation of an indirect experience of social coercion and control on peoples' lives (Regoli, Hewitt

et al. 2017). According to that theory, an imbalanced society demands on its members (socio-financial demands in the case of Greek population) give rise to anomie because of their unsatisfied needs (Paternoster and Mazerrole 1994) .

Elicitors: Many will say that the psychology of Martin Luther King Jr.'s "creative maladjustment" at societal injustice "… I am sure that we all recognize that there are some things in our society, some things in our world, to which we should never be adjusted. There are some things concerning which we must always be maladjusted if we are to be people of good will. …racial discrimination and racial segregation …religious bigotry …economic conditions that take necessities from the many to give luxuries to the few …the madness of militarism, and the self-defeating effects of physical violence" (M.L. King, Jr. 1968, p. 185) illustrates the participants' positive emotional results of this research's findings. However, Durkheim anomie (McCloskey 1976), the breakdown of a sense of shared moral order that resulted in serious pathologies such as suicide justifies the trauma and stress-related factor of this research and seems to act better as elicitor of the social injustice that participants ranked. The current effect of the economic crisis in Greece on the seasonal variation of suicides in the Athens Greater Area has devastating consequences for a significant number of the population and strengthened the seasonality of suicides, while a noteworthy suicide risk of 96% was revealed for suicides by hanging (Christodoulou, Efstathiou et al. 2017).

Action-tendency (AT): surprisingly, this research's findings do not support the theory of William James, who is repeatedly referred to as the creator of the self-esteem movement (Leary, Tambor et al. 1995, Seligman 1996, Pyszcynski, Greenberg et al. 2004, Hewitt

2005). The theory states that that feeling good about ourselves (pretensions) and how well we do (success), are inseparably linked to self-esteem. With the economic downturn in Greece it is difficult to protect your career and even more difficult to find a new job. The unemployed or under employed may compete with many others for the better jobs but unquestionably the low labour income in Greece do not provide a feeling of success.

However, Greek participants may feel social injustice and feel down about the current situation in their country, but they did report high self-esteem with their score "Trust on me" indicating an intrinsic motivation. Feelings of social injustice derive clearly from the current socio-economic situation in Greece; the facts are so evidence based that it is difficult to dispute that you may do well (success) in Greece. In 2018, the national minimum wage in Greece remained fixed at 683.8 € per month, that is 8,206 euros per year, considering 12 payments per year (Eurostat). Additionally, the impact of welfare of Greece due to financial crisis is huge. At the heart of the crisis, statistics offer us the objective truth about welfare support in Greece. Greece shows the second highest rate of severe material deprivation (21.1 percent) in the EU, meaning that more than one in five Greeks cannot afford to pay their bills (Eurostat 2016). However, participants' results demonstrate the mediating role of intrinsic motivation and results are in accordance with self-determination theory (SDT) that states that man is born with an intrinsic motivation to explore, absorb and master his surroundings and that true high self-esteem (Deci, Eghrari et al. 1994) is reported when the basic psychological nutrients, or needs, of life (relatedness, competency and autonomy) are in balance (Ryan and Deci 2000, Ryan and Deci 2004). Interestingly, relatedness was an addition to the original theory to account for people's inherent ability to make meaning and connect with others

through the internalization of cultural practices and values (Ryan and Deci 2004). Recent studies demonstrate that relatedness forms relationships that augment your sense of pride and indicates that close relationships may enhance subjective well-being (Du, King et al. 2017, Thomas, Amiot et al. 2017).

Conclusion

After rapid increases in unemployment (the rate increased to 10.6% in November 2009 and it is in 20.9% in November 2018) and large wage reductions in Greece it is unavoidable that the participants face a hard choice and accept the measures of austerity either as employed either as unemployed looking for a job. We do not bring on the scene the Greek tragedy, rather we focus on pride in the relation between self-esteem (trust in me) and positive affect (love). Utilizing this research's data efficiently we do not have any other choice than to link the data with the demographics of the research population and develop the framework of self-worth through education (trust in me emotion that participants ranked) and responsibility/concern (the emotion of love that participants ranked). We hypothesize that participants process information about the self and make self-evaluative judgements against labour standards in Greece (the social injustice emotion that participants ranked), therefore the anti-austerity movement exists. However, participants' social adaptive emotion (the emotion of pride that participants ranked) motivates their behaviour to work hard (low-wage and long hours of work) in achievement and task domain, and continue to look for work even if work standards are lower than general European standards and to behave in socially appropriate ways in their

social interactions and intimate relationships. The theoretical background of this research is based upon the body of research on basic emotions and supports that basic emotions can function as building blocks to answer socio-ecological challenges. Therefore, research findings suggest that “Love”, “Trust in me” and “Pride” as positive emotions are innate, universal, cannot be learned, automatic and trigger behaviour with a high survival value. Constructs such as self-trust, pride, and social injustice may display strong relationship with intrinsic motivation and coping. The motivational benefits of social justice and self-trust have already been the focus of much theorizing in the research literature, but their collaboration with pride as social and moral emotion is less studied.

Chapter 9 Discussion

The present research project proposes that the function of emotions, especially the basic emotions, represent efficient forms of adaptation to stressful situations and alert us for challenges that we must adequately address to sustain well-being. Current literature does not offer scales-tools that are designed to assess discrete emotions in relation to financial hardship and unemployment. Under that perspective, this thesis aimed to develop a method for measuring the emotional reactions of people in financial hardship, examine its use with the population of the unemployed and provide an objective self-report instrument called "Nottingham Emotional Scale – NEScale" as a tool to explore the gaps in understanding of emotions in relation to unemployment.

What are the dominant feelings of:	*RQ1*	employed and unemployed in Athens and outside Athens?
	RQ2	unemployed with children and unemployed without children?

(H1) Is there a difference in emotion between employed and unemployed?

there was a difference in emotion between the employed and unemployed participants, with the employed scoring significantly higher on the Positive Emotions Factor (2.60), and the unemployed scoring higher on the Negative Emotions (2.29) and Trauma and Stress-related Emotions Factors (1.23);

(H2) Employed in Athens and outside Athens?

T-test results found no statistical significance with regard to the three emotions factors between employed in Athens and outside Athens;

(H3) Unemployed in Athens and outside Athens

There was a statistically significant difference between the two groups in the Negative Emotions Factor – those residing outside Athens scored significantly higher (2.36) than their Athenian counterparts (2.25);

(H4) Women and Men

females were found to score significantly higher on the Negative Emotions Factor (2.26) compared to males (2.14);

(H5) Unemployed women from Athens and outside Athens

there were no statistically-significant effects between unemployed women residing in Athens and outside of Athens;

(H6) Employed women from Athens and outside Athens

results of the independent samples t-tests showed that there was no statistically significant difference in the three emotions factors between employed women from Athens and outside Athens;

(H7) Unemployed men from Athens and outside Athens?

results showed that unemployed male participants from outside Athens scored significantly higher on the Negative Emotions and the Trauma and Stress-related Emotions Factors than unemployed males from Athens;

(H8)

There was a statistically significant difference in mean responses to the Trauma and Stress-related Emotions Factor, with non-Athenians employed men scoring higher than Athenians employed men, on trauma and stress-related emotions;

(H9) Single, married with children and married without children in Athens and outside Athens?

Results showed that those who were single or married and living outside of Athens scored significantly higher (2.25) on the Negative Emotions Factor than single/married participants from Athens (2.18);

(H10) Married unemployed with children and without children?

Married unemployed participants with children scored significantly higher on both the positive and negative emotions factors, while married unemployed participants without children scored higher on the Trauma and Stress-related emotions factor.

The results from this research found that people with positive emotions were more likely to have better mental health and cope better with hardship and unemployment. These findings are consistent with studies which emphasize that positive emotions protect psychological well-being and make people more resilient to stressful events (Fredrickson 2003, Tugade, Fredrickson et al. 2004, Tugade and Fredrickson 2004). Results are also in accordance with studies that pinpoint that individuals who express positive emotions show more constructive and flexible coping, and greater emotional detachment from stressful negative events (Martin, Kuiper et al. 1993, Lyubomirsky and Tucker 1998). Additionally, results also suggest that people with positive emotions sustain their life satisfaction and happiness during hardship which is accordance with studies focusing on positive emotions as the material to build lasting resources concerning life satisfaction and trait resilience (Fredrickson 2000, Cohn, Fredrickson et al. 2009).

The “rehabilitation” approach (Tiffany, Cowan et al. 1970) proposes that the high rate of mental health problems among unemployed people is not caused by unemployment itself but simply mirrors the likelihood that people with mental health issues struggle to hold their jobs. On the other hand, this research finding (H1) on a population of 2201 participants (1101 employed and 1100 unemployed) states that there is a difference in emotion between employed and unemployed participants, with the employed scoring significantly higher on the Positive Emotions Factor (2.60), and the unemployed scoring higher on the Negative Emotions (2.29) and Trauma and Stress-related Emotions Factors (1.23) and confronts the rehabilitation approach concept that illustrates the psychological portrait of the unemployed as psychologically impaired individuals too lazy to work.

Research participants’ higher educational background demonstrates their personal and institutional commitment to professionalism in learning and working, thus it suggests that the appropriate response with a rehabilitation approach is not to rehabilitate the unemployed to rectify their lack of responsibility, rather to rehabilitate labour behaviour on its lack of job opportunities, especially for the overqualified candidates, and on the lack of continuity of employment. Challenging such stereotypes of Greeks being 'lazy' or 'greedy' shadow the three responsibilities that every government has towards its citizens: (a) to provide goods and services that individuals cannot provide individually for themselves, (b) to provide a solution to collective action problems, and (c) to protect through social welfare the vulnerable conditions of youth, old age, sickness, disability and unemployment due to economic forces beyond their control (World Health Organization 2010). The distinction of people in hardship and unemployment as being

"the deserving poor" (Stolleis 2014), a distinction made in the thirteenth century and which has a strong presence even today, illustrates the social failure of society to provide a coherent social structure and organization to people in need and just results in lower living standards all round for both the employed and unemployed in Greece. This can be illustrated in people's rural needs in areas with a high rate of unemployment, such as West Makedonia, with just under 50% unemployment rate, and clearly demonstrates a failure to understand the social needs. This is also exemplified by the negative emotion results that unemployed outside Athens (rural area) ranked in this research since there was a statistically significant difference (H3) between the two groups in the negative emotions – those residing outside Athens scored significantly higher (2.36) than their Athenian counterparts (2.25). Additionally, there was a statistically significant difference in mean responses to the trauma and stress-related emotions, with non-Athenians employed men scoring higher than Athenians employed men on trauma and stress-related emotions (H8), strongly indicating that rural areas and well-being have a negative association during financial crisis and unemployment times. Research repeatedly highpoints that under the perspective of local opportunities locally as well as local amenities and services; social lives, family and social networks, rural communities are deprived and the main characteristic is intrusive and controlling (Glendinning, Nuttall et al. 2003)

The gender- and geographic- specific results showed that females and males express different emotions concerning unemployment. While results showed that females

were found to score significantly higher (H4) on the negative emotions (2.26) compared to males (2.14, there were no statistically-significant effects between unemployed women residing in Athens and outside of Athens (H5) indicating that women's psychological well-being is more affected by unemployment itself rather than geographic labour force, compared to men. On the contrary, results showed that unemployed male participants from outside Athens scored significantly higher on the negative emotions and the trauma and stress-related emotions than unemployed males from Athens (H7) suggesting that rural unemployment has a higher impact on men's mental health.

Drawing further understanding from the research picture on male and female differences on unemployment is difficult since female unemployment research mostly has a population perspective that focusses on the negative association between income and fertility (Ahn and Mira 2002, Adsera 2005) and female labour market participation (Buchmann, Kriesi et al. 2010, Jensen 2017). However, we pinpointed two different features of male and female entrepreneurs that can serve as hypothetical highlights; the different focus of men and women in employment-seeking and consequently unemployment needs that need to be met. While the educational background is similar for the new male and female entrepreneurs, men are more likely to (a) seek opportunities and start a business to make money, spend more time identifying business opportunities even when other factors are controlled, and (b) have high expectations for their business, even if they create businesses that lose their competitive advantage more quickly, and have a less geographically localized customer base (Kepler, Shane et al. 2007). Conversely, women prefer low risk businesses and are less likely than men to purchase their business suggesting that women are focused on the need for financial and job

security and men want to boost a business or access to work (Kepler, Shane et al. 2007, Gallie, Felstead et al. 2016).

Employed participants from Athens and from outside Athens reported the negative emotion “Social Injustice”. However, it seems that employment status itself, despite poor working conditions, cultivates experiences of positive emotion and breeds a sense of purpose and, notably, geographic location is not a factor that is associated with employees’ experiences of emotions. This has been confirmed from this research’s results which found no statistical significance regarding the three emotional factors between employed in Athens and outside Athens both in men (H2) and women (H6).

Specifically, “Determination” as a key positive emotion reported in employed participants in Athens area is in accordance with self-determination theory (STD) in which the intrinsic motivation of the individual regardless of the external rewards remains unbroken (Deci, Eghrari et al. 1994). These results are also in agreement with intrinsic motivation and subjective experience studies that propose them as dominant over external stimuli that aim to control and regulate (Nicholls 1984, Ryan and Deci 2000). A cross-cultural study will enhance our understanding of possible culture variations on the motivation of the purpose, as earlier studies stated (Kim and Drolet 2003, Kaplan, Karabenick et al. 2009, Trumbull and Rothstein-Fisch 2011), and explore the culture determinants on the “Determination” construct of employed and unemployed across European countries with the highest unemployment rate as a recent study showed that values associated with autonomy and competence show a universal pattern of high importance (Fischer and Schwartz 2011). The positive emotion construct of

"Determination" can also been seen in Jahoda's unemployment model, which argued that work connects the person with reality and supported people's need to feel like valued members of a society and not detached and inactive (Jahoda 1981). Employment, regardless of what the type is, gives you time structure, social contact, collective purpose, and activity that contributes to your sense of self-coherence and purpose (Karsten and Batinic 2010).

While employed in both Athens and outside Athens reported "Determination" and "Social injustice" together the unemployed participants inside and outside Athens reported the common prevailing negative emotion "Social Injustice" with the employed participants but with the difference that they also reported "Stress" and "Uncertainty about the future", "Sadness", "Nostalgia", "Tiredness" and "Vanity of life".

This suggest that the presence of socioeconomic conflict not only affects the economic incentives of a country but also has effects on individual well-being via labour market outcomes, and the struggle to be independent for socio-economic growth. This result parallels previous research studies on human rights trauma, poverty and injustice (Carr, McWha et al. 2010, Rees, Silove et al. 2013). Additionally, the social construction of injustice based on direct experiences with fair and unfair authorities forms a potent source of group impressions of injustice (Lind, Kray et al. 1998) which also confirms this research's findings. What differentiates most clearly the new social injustice all over the world is illustrated in the book "Injustice" where the core beliefs of injustice reflect the cultural, social, and economic elitism that justifies the exclusion of so many people from normal social activity (Dorling 2015). This is also in accordance with participants feeling

that there is something wrong and unjust in how financial crises damages people from the very top to the very bottom of society.

Research has identified significant regional differences in the emotional experience of hardship and unemployment which signpost the need that rural areas should not be neglected. Countryside areas are the least competitive regions when it comes to jobs openings and employees in the countryside usually hold on to their jobs during economic difficulties. On the contrary this time the recession has hit rural areas hard, with outside Athens (rural areas) experiencing greater increases in unemployment than inside Athens.

Notably, unemployed participants in rural areas are likely to experience more negative emotions: “Nostalgia”, “Sadness”, “Stress”, “Uncertainty about the future”, “Tiredness” and “Vanity of life” than the employed participants of urban areas who reported as more frequent the negative emotion “Uncertainty about the Future”. These emotional consequences of negative emotions that the unemployed feel outside Athens can be met in studies about subjective assessment of emotional affects (Knabe, Rätzel et al. 2010). These results show clearly that financial hardship and losing a job reduce the levels of psychological wellbeing of people and are in contrast with Fryer and Payne’s agency critique (D and R1986. 1986) that the unemployed are active, determined and have control over events. A possible answer is that the effects of persistent austerity measures and a high unemployment rate (at just under 24%) have contributed to peoples’ passivity in front of the patronage system. Moreover, results are also in accordance with Eisenberg and Lazarsfeld’s three stage model of unemployed experience (Eisenberg and Lazarsfeld 1938) where shock, optimism while searching for a job, and then pessimism,

anxiety and distress in failing to find a job. Jahoda, Lazarsfeld and Zeisel (Jahoda, Lazarsfeld et al. 1933/1972) had also documented among their "basic insights into the effects of unemployment .... a steady decline into apathy through a variety of stages and attitudes." which agrees with the negative emotions of the unemployed outside Athens. However, considering the complex nature of unemployment, we need also to consider that the same situation may not produce the same consequences; thus we need to keep an open door in research to individuals with different socio-cultures and political backgrounds.

Although there is no plethora of comparison studies for the emotional well-being of the unemployed in Greek rural and urban areas, a study which examined coping and the psychological sense of community in two areas of Greece, an urban area and a rural area, found that negative mood was higher in the rural area (Roussi, Rapti et al. 2006); this confirms this research's findings. Additionally, this research's findings are in accordance with the findings of the impact that the financial crisis has on the Greek population (Bouras and Lykouras 2001) and a study by the psychiatrist Giotakos (2010) that reported that the high increase in unemployment and economic crisis austerity led to a tripling of psychotic episodes, a doubling of alcohol abuse, a doubling or tripling of depressive episodes, increased suicides, homicides and general psychiatric disorders in Greece. Although emotional well-being studies are largely neglected in rural and urban areas in Greece and expected improvements from the state do not exist, promising improvements exist such as the development of the Mobile Mental Health Unit (MMHUs) in rural areas in Greece (Ioannina and Thesprotia) by a nongovernmental organization. This is a successful paradigm of a low-cost service which promotes mental

health in rural areas (Peritogiannis, Manthopoulou et al. 2017). Specifically, hospitalizations of treatment with the engaged patients were reduced significantly by 30.4% within the first two years, whereas the treatment engagement rates of patients with psychotic disorders were 67.2% in five years.

Astoundingly, research results for employed and unemployed touch on Warr's vitamin model (Warr 1987, De Jonge and Schaufeli 1998), in which the nine vitamin-characteristics (1) opportunity for control, (2) opportunity for skill use, (3) externally generated goals, (4) variety, (5) environmental clarity, (6) availability of money, (7) physical security, (8) opportunity for interpersonal contact, and (9) valued social position relate differently but strongly with mental health outcomes in well-being. Comparing Warr's nine vitamins of work-related well-being with the employed and unemployed conditions in Greece, the situation appears catastrophic. According to the ministry of labour in Greece, pay parameters involve an annual minimum wage of €8.206, all salaries decreased by 19.1% since 2010 and working time consists of a minimum of 42 hours per week. Moreover, a recent study validated why skills and training cannot be applied in the Greek political economy where labour markets cannot absorb high skills and demand for jobs which require high skills is extremely weak (Rodokanakis 2015).

Severe labour exploitation with Greek citizens and migrant workers is illustrated by unpaid overtime, unpaid eight-hour trial shifts for between four and six weeks without guaranteeing them a job at the end and with no national insurance record; this is an everyday labour reality in Greece (Ioannides, Oxouzi et al. 2014, Gialis, Tsampra et al. 2015). The unlawful Greek labour environment is confirmed by the Articles 648 to 680 of the Greek Civil Code on 'contract of employment', which are the basic provisions that

govern the employment relationship between employers and employees. These articles define: (1) the nature of an employment contract, (2) the employer's and employee's main obligations; (3) the time of payment of salary and the consequences of delay; (4) the consequences of an employee's sickness; (5) health and safety at work; (6) collective employment agreements; (7) the deemed renewal of an employment term; (8) annual leave; and (9) termination for a serious reason. Additionally Greek labour does not comply with law Directives 43/2000/EC, 78/2000/EC, 54/2006/EC and 54/2014/EC, which govern the general framework of equal treatment in employment. The relevant national laws are: (1) Law No. 4443/2016 for the application of the principle of equal treatment regardless of national, racial, religious or other orientation or beliefs, invalidity, age or sexual orientation; and (2) Law Nos. 3769/2009 and 3896/2010 for the equal treatment of men and women in employment.

When the above negative participants' emotions and current situation of unlawful Greek labour and severe austerity measures are combined, inevitably the impact of the catastrophe induces exogenous shock. This research finding supports that hardship and unemployment can cause detrimental effects on mental health with a lasting negative effect (Karsten and Klaus 2009, Schmitz 2011, Ishmuhametov and Palma 2017). Specifically, the "Trauma and Stress-related emotions" factor of NEScale demonstrates that people who experience persistent financial hardship and unemployment tend to develop post-traumatic stress disorder (PTSD). This is in accordance with Dr Murrough's study (2014) on employed and unemployed who in Medscape Medical News stated "We asked what the biggest predictor of severity of PTSD was and found that it was unemployment.".

On the same lines as the participants responses in this research, an increase in mental health problems is among the most serious consequences of crisis in the socioeconomic life of Greece (Ifanti, Argyriou et al. 2013). This also identifies the gap between social welfare and economic development of countries all over the world where structural problems to labour market recovery are considered, as it seems, more significant than well-being. However, a possible defence for the fact that the strategy for overall health promotion, which includes mental health, has been delayed in Greece is that a physical health review reported that public health in Greece is not in any risk and claims of a public health tragedy seem overly exaggerated (Tapia Granados and Rodriguez 2015) . Under that perspective, even with mental and physical health not being thought of as separate, a clear division needs to be established between physical health and mental health strategies and policies, as conditions have co-occurring effects for the population but can exist separately.

Though anyone can experience poor mental health difficulties and cope with the psychological distress of socioeconomic deprivation, there is certain population which is at a significantly greater risk.

Bakke (1934) for the first time observed that some people become more easily adapted to being unemployed through gaining the perspective that when employed you barely earned more than the unemployed on social welfare. Cynics would have described it as a social welfare success story over unemployment hysteresis where unemployment remains on a higher level despite development in the rest of the economy. However, research demonstrated that the experience of unemployment varied according to a person's age and length of unemployment (Karsten and Klaus 2009), gender (Artazcoz,

Benach et al. 2004), financial resources and social support (Waters and Moore 2002). Moreover, studies were not related to neuro-biological as well as genetic factors but rather with socio-demographic characteristics that might have implied that an "additive burden" in research was side-lined.

This research project results suggest that genetic factors play an important role in an individual's response to stress and trauma and subsequently to his resilience. It has been proposed that the mechanism underlying the gene-environment interaction between the serotonin transporter gene and stress may involve alteration in the critical amygdala–ventromedial prefrontal cortex (PFC) and dorsal raphe circuitry that is similar to that observed in depressed patients (Jasinska, Lowry et al. 2012). Additionally, findings on gene susceptibility suggest that the environmental risk of depression is modified by at least two genes and that gene-environment interactions are found even into old age (Kim, Stewart et al. 2007).

Although many will consider that genetics is the only key area of research that we need to consider for resilience in stress, changing the psychosocial environment can also endorse resilience. For example, in a study of maltreated children, positive social support appeared to protect against depression, even in children having the short allele of the serotonin transporter gene (Kaufman, Yang et al. 2006). Similarly, brain development in early years research showed that the brain's emotional and immune systems in particular can be affected by early stress and can become less effective (Gerhardt 2014).

Laying the groundwork for constructive discussion, we will not focus on the economic and political scene of Greece; rather we will focus on the symptoms and possible causes that lead NEScale's findings to cluster the items of its third factor as "Trauma and Stress-Related Emotions". The third factor includes the seven items of "Mourning sorrow", "Meanness", "Jealousy", "Guilt", "Apathy", "Boredom", and "Sleepiness".

We rarely hear of social or human rights disasters although most people will consider natural or conflict-related disasters' impact on people. However, disasters are mass traumatic events that involve multiple persons and are frequently accompanied by loss of property and economic hardship on a large scale (Galea, Nandi et al. 2005). Research proposes the individual's subjective reaction to the event is a central factor in who develops PTSD as the objective characteristics of the event. According to DSM-5, an event is qualified as trauma, with the subjective criterion (A1): that person has "experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or threat to the physical integrity of the self or others" and the subjective criterion (A2): that "the person's response involved intense fear, helplessness, or horror" be met.

Following exposure to a traumatic event, the person must also experience at least one of five (Cluster B) symptoms of re-experiencing the trauma (recurrent and intrusive distressing recollections, nightmares, flashbacks, intense psychological distress in response to memories or reminders of the trauma, and physiological arousal cued by memories or reminders of the trauma); three or more of seven (Cluster C) symptoms of

persistent avoidance (of memories or reminders of the trauma) and emotional numbing (dissociative or psychogenic amnesia for important parts of the trauma, loss of interest in important activities, feelings of detachment or estrangement from others, restricted range of affect, and a sense of a foreshortened future); and two or more (Cluster D) symptoms of increased arousal (sleep difficulties, irritability or outbursts of anger, concentration difficulties, hypervigilance, and an exaggerated startle response).

Specifically, Trauma and Stress-related emotions of NEScale involve symptoms of Cluster B: intrusive distressing recollections, Cluster C: loss of interest in important activities, feelings of detachment or estrangement from others, restricted range of affect, and Cluster D: sleep difficulties and outbursts of anger.

Conclusion

The aim of this research project was to create a valid five-point Likert measure of emotion that can be used to document individuals' emotional responses during financial hardship and unemployment. For all items on the scale, the minimum response provided was 1 ("I do not feel") and the maximum response was 5 ("I feel all the time").

An exploratory sequential mixed methods approach was characterized by an initial qualitative phase of data collection, followed by a phase of quantitative data collection and analysis (Study 1), with a final phase of linking of data from the two separate strands of data and developing the measure "Nottingham Emotional Scale" (NEScale) and then testing the reliability and validity of this measure (Study 2, Study 3 and Study 4) by collection and analysis of quantitative data. The results were:

Study 1:

NEScale consisted of 58-items on a five-point Likert type scale. The sample size of the study was 276 participants, men and women (employed, unemployed and other). The age ranged was 20-81 and the population was inside and outside Athens. Web-based and paper- based formats were used to collect data and demographics. The factor analysis that was performed extracted the 58 emotion items into three main components or dimensions that explained 41% of the total variance observed. These dimensions were negative-oriented, positive-oriented and "Trauma and Stress-related" emotions. The final version consisted of 31-item instrument measure instead of 58 items. The items on the NEScale scale revealed factor loading 0.5. and appeared to be suitable for the study purpose and content area. Reliability processes indicated that the NEScale was reliable: Cronbach's alpha 0.94 for the global SQ and between 0.80-0.91 for the three subscales.

Results showed: (a) work status did not significantly affect any of the three emotion dimensions, (b) gender had a significant effect on the negative-oriented emotion dimension, where women scored higher than men, (c) family status had a significant effect on "Trauma and Stress-related" emotions and (d) the location of residence was found to significantly affect the same dimension of "Trauma and Stress-related" emotions; participants who resided in Athens (urban area) scored significantly higher than those who resided outside of Athens (rural area).

Study 2:

NEScale consisted of 31-items on a 5-point Likert type scale. The sample size of the study was 2201 participants. Reliability was tested in a sample of employed (1101) and unemployed (1200). Web-based and paper-based formats were used to collect data and demographics. Cronbach's alpha for the entire scale was α=.662 (24 items). Reliability of "Negative" emotions was acceptable and high α=0.780 (9 items), "Positive" emotions was acceptable and high α= 0.850 (8 items), and "Trauma and Stress-related" emotions was acceptable α=0.680 (7 items). Results showed:

(a) H1: there was a difference in emotion between the employed and unemployed participants, with the employed scoring significantly higher on the Positive Emotions Factor (2.60), and the unemployed scoring higher on the Negative Emotions (2.29) and Trauma and Stress-related Emotions Factors (1.23),

(b) H2: T-test results found no statistical significance with regard to the three emotions factors between employed in Athens and outside Athens,

(c) H3: there was a statistically significant difference between the two groups (H3) in the Negative Emotions Factor – those residing outside Athens scored significantly higher (2.36) than their Athenian counterparts (2.25),

(d) H4: females were found to score significantly higher on the Negative Emotions Factor (2.26) compared to males (2.14),

(e) H5: there were no statistically-significant effects between unemployed women residing in Athens and outside of Athens.

(f) H6: results of the independent sample t-tests showed that there was no statistically significant difference in the three emotion factors between employed women from Athens and outside Athens,

(g) H7: results showed that unemployed male participants from outside Athens scored significantly higher on the Negative Emotions and the Trauma and Stress-related Emotions Factors than unemployed males from Athens,

(h) H8: There was a statistically significant difference in mean responses to the Trauma and Stress-related Emotions Factor, with non-Athenian employed men scoring higher than Athenian employed men on Trauma and stress-related emotions

(i) H9: Results showed that those who were single or married and living outside of Athens scored significantly higher (2.25) on the Negative Emotions Factor than single/married participants from Athens (2.18),

(j) H10: Married unemployed participants with children scored significantly higher on both the positive and negative emotions factors, while married

unemployed participants without children scored higher on the Trauma and Stress-related emotions factor.

Study 3 and Study 4:

The sample size for test-retest was N=49 participants, for the convergent N=36 and for the discriminant N=34. The age range was 26-65. A web-based format was used to collect data and demographics. NEScale provided evidence of good test-retest reliability for the NEScale, in the two, four and six-week intervals, for a valid sample of N=49. Validity of scale found that it is related to four measures, Brief Cope, Dass-42, that assess related constructs. There was evidence for convergent validity between the NEScale and the SHS and SWLS Scales. All correlations between the UNEScale Subscales and the SHS and SWLS Scales were statistically significant ($p<.01$, valid sample N=36). Most of these relationships were high correlations, with the SHS and SWLS Scales showing high and negative correlations with Negative Emotions; high and positive correlations with Positive Emotions; and medium-high negative correlations with Trauma and Stress-related Emotions. Additionally, there was evidence of discriminant validity between the NEScale and the Brief Cope Scale. Specifically, for a valid sample of N=34, the correlations of the NEScale Negative, Positive and Trauma and stress-related Emotions Subscales with the Brief Cope Scale were low and statistically non-significant ($p>.22>0.5$).

The NEScale of 24 items has three factors with high and accepted reliability. Analytically, the first factor "Negative Emotions" comprised of nine items, namely sadness, fear, anger, nostalgia, agony, stress, uncertainty about the future, social injustice and tiredness. Cronbach reliability was high and acceptable at $\alpha=.78$. The second factor,

"Positive Emotions", remained the same as with the first factor analysis, with the eight items of happiness, enjoyment, love, tranquility, trust in me, determination, pride, and life satisfaction, with a high and acceptable reliability (α=.85). The third factor, "Trauma and Stress-related", included the seven emotions of mourning sorrow, meanness, jealousy, guilt, apathy, boredom, and sleepiness, and had acceptable reliability at α=.68 which offers a satisfactory level of reliability.

The scores on this measure were stronger predictors of emotional health under hardship and unemployment in the Greek population. The newly designed scale "Nottingham Emotional Scale- NEScale" is a brief self-report measure and includes 24 items that reflect each of the components of three categories, such as "Positive", "Negative" and "Trauma and Stress-related" emotions, with items 8, 9 and 7 accordingly.

The Nottingham Emotional Scale - NEScale - meets the psychometric priorities by providing a valid and reliable outcome measurement of the emotional reactions of people in financial hardship and unemployment. The internal consistency of the Nottingham Emotional Scale (NEScale) for a sample of N=2201 participants in a group of 1100 unemployed and 1101 employed participants demonstrated that the reliability coefficients of the scale are acceptable for a measurement scale. Findings reported the unemployed experience uncertainty and stress very often, unlike the employed. Conversely the employed would experience determination very often, unlike the unemployed. Findings also showed that unemployed without children had significantly more jealousy, apathy, and boredom. The results support the use of the NEScale in research studies; it is appropriate for the targeted population of the unemployed and suitable for use in the general population. For the assessment of test-retest reliability, a

sample of 49 participants completed the NEScale in a two, four and six-week intervals. Convergent and discriminant validity were examined with the 28-item Brief Cope Scale, the 42-item DASS-42 Scale, the four-item SHS Scale and the five-item SWLS Scale.

This research's results, based on basic emotion theory, suggest that the adaptive nature of emotions depends on individuals' inherent motivational characteristics that guide their thinking and behaviour and are evolutionary enabled to adapt to environmental challenges. The specific positive emotions of "Love", "Trust in me" and "Pride" seem to act as effective coping and adaptation tools and function as strong indicators of individuals' psychological resilience. Moreover, based on basic emotion theory, the specific positive basic emotions may enhance adaptation but unfortunately cannot be learned. However, recent studies have proved the Gene-environment (Gxe) interactions may create environmental factors that can offer prevention measures on the etiology of psychological rigidity. For that reason, since positive emotions resulted according to the findings to be essential for psychological resilience, adjustment and coping to stressors especially financial and labour stressors, gene-environment interaction (GxE) research may facilitate our understanding of environmental influences that boost the gene expression of positive emotions.

Additionally, the gender results showed that females and males express different emotions concerning unemployment and females scored significantly higher on the negative emotions compared to males. Geographic results demonstrated that emotional health and well-being in rural areas is under threat during unemployment. Results showed negative emotions that affect ability to copeamong the unemployed and signpost "trauma and stress related emotions" that indicates post-traumatic stress disorder (PTSD)

and results also showed that rural unemployment has a higher impact on men's mental health. Results also suggest that prolonged exposure to financial hardship and unemployment creates vulnerability to metal illnesses and that unemployment is the biggest predictor for post-traumatic stress disorders (PTSD).

Finally, this thesis contributes to the medical and social sciences research literature in two main ways. Firstly, this thesis outlines the research gaps in understanding and assessing discrete emotions in relation to financial hardship and unemployment. Secondly, this thesis develops an objective tool to document unemployed emotional responses during unemployment that are under-researched in the literature. Importantly, NEScale provides for first time worldwide assessment of discrete emotions in unemployment and serves as a screening instrument for post-traumatic stress disorders (PTSD).

9.1 Research Impact

9.1.1 Immediate Academic Impact with Strengths and Limitations of the Current Research Project

This research project contributes to the research knowledge by finding the importance of positive emotions in psychological resilience during financial hardship and unemployment through an emotional scale in a large population. The Nottingham Emotional Scale (NEScale) will set the groundwork of increased knowledge for basic emotions research on vulnerable populations such as unemployed and homeless to prevent the onset of mental health problems. This research's results will contribute to scientific knowledge to improve the understanding of the role that basic positive emotions play in our everyday life through journal publications.

A major strength of this project is that it addresses a gap identified in the research literature; this project represents one of the first worldwide emotional scales that does not assess only the broad dimensions of affect (positivity and negativity), but is also sensitive to seven emotions that can be used as a parameter with the diagnosis, early identification and treatment of post-traumatic stress disorder (PTSD).

Another important strength is that it launches a framework for theory and research on resilience, positive emotions and hardship conducting statistical analysis. NEScale is based on basic emotions and each criterion is there for a pre-articulated reason; thus, NEScale lies on the light of pre-understanding and connects findings with research and theory. Using a pre-understanding framework to investigate phenomena gives an

important perspective on research with largely ignored scientific practicalities and details. Continued use of the scale would allow more sophisticated statistical analysis techniques.

A possible limitation is the small sample size of convergent and discriminant validity of the scale since statistically we are not allowed to effectively interpret the relevance of the NEScale. However, its large sample size of 2201 participants, reliability and validity findings with the scales Brief Cope, DASS-42, SWLS and SHS can offer research confidence in its use.

Another limitation is the lack of translated, linguistic and culturally validated versions of other scales, thus we lack the opportunity to measure different aspects of psychological experience, associate NEScale with other concepts and create its suitability map for different research disciplines.

Additionally, 64% of the sample was female and we probably introduce selection and sampling biases. However, subsequent research showed no significant differences between men and women in psychological distress symptoms in response to unemployment (Leanna and Feldman 1991) and mood changes to stressors (Stroud, Salovey et al. 2002) , thus, the non-equivalence with regard to gender may have had little impact on the findings of this research.

9.1.2 Methodological considerations

The prospective challenges of working with the unemployed in Greece should inform research methodology because some of the distinctive challenges that arise when working with specific populations (such as unemployed, homeless, or prisoners where the

access for data collection is not always available) are not easily overcome and a guideline on how to conduct such research (issues and strategies) is important.

In this project, methodological considerations for researching unemployment in Greece in paper-based and online format include trade-offs, collection procedures and translation quality during analysis.

Specifically, a study that attempts to recruit unemployed people without the collaboration of Job Centres may have difficulty accumulating significant sample sizes. Subsequently, researchers must often compromise to recruit small samples unless they have strong marketing or public relations and can inform media about their research; for instance, extensive financial support that can offer financial compensation to research participants and encourage them to take part in the research. On the other hand, researchers can link to a larger project that offers access to the specific population of research.

An online format of research in Greece presents research challenges that require special attention. A disadvantage of online surveys for the unemployed is that some cannot afford to have Internet access, they do not have regular access to Internet or they do not use modern devices such as smartphones. Moreover, an online survey cannot give a full picture of how you can improve your research methodology on accessing and gaining the trust of potential participants. Unemployed populations may be reluctant to participate in research because of unfamiliarity or concerns about demographic questions such as educational background or marital status. Moreover, unemployed potential research participants may be more suspicious of the research. A possible explanation for that was given during this study's recruitment where many participants mentioned their

worries about the demographic collection of the study since they believed that employers collect their personal information so as to avoid specific future employee allowances such as maternity allowance or long-term sickness pay.

The researchers need to have unambiguous choices about the questions they wish to study when a qualitative study is a part of a lengthy online survey (or even worse in paper-based format) to prevent or lessen survey drop-out. Simple, short and friendly clear questions are vital for making the participants feel comfortable with sharing their stories. Additionally, data collection in this study has pinpointed that unique characteristics of participants (such as single mother with child) and the difficulties they face require different demographic data collection questions and further research in relation to the sole characteristics of specific groups.

Additionally, cultural competence in research is a key element in research findings since translating during analysis helps the research to capture not only implicit and explicit meanings from the data but cultural specific words, expressions and thoughts as well (such as sense of injustice in Greek culture). Conversely, a bilingual translator offers the element of ‘’the mediator’’ between two different cultural contexts and acts as a bridge to share empathic knowledge to other cultures.

An adjustment in research methodology is essential when working with unemployed populations in Greece. In support of this is the unavailability of online communities to support and inform unemployed people that entails challenges concerning the access to this specific population electronically. User-friendly Web community-based platforms for the specific population will help to build trust for research participation, establishing a communication with them informing them of the usefulness of research on

unemployment, recruitment of participants for future research and it might also operate as an online recruitment agency for the employers. Additionally, a free internet connection for the unemployed will give them the option to be in contact with friends and relatives and might work effectively to gain information about job positions and promoting quicker re-employment.

9.1. 3 Longer Term Impact (Societal and Economical Impact)

Since positive emotions were, according to the findings, essential for psychological resilience, adjustment and coping to stressors (especially financial and labour stressors), reliable and valid measures in clinical and social research are required. It is essential to build on the match between research and theoretical explanations and develop a comprehensive theory for this limited part of the field of positive basic emotions and promoting through them resilience and resolution in troubled times. Therefore, the use of Nottingham Emotional Scale (NEScale) with populations in socio-economic stressors such as poverty and homelessness to see similarities as well as differences is necessary.

The findings of the research support Izard's standpoint that frequently occurring basic (first-order) emotion experiences in a combat zone in wartime since repeated basic (first-order) negative emotion experiences can lead to severe mental health problems such as posttraumatic stress disorders. The financial costs of the adverse effects of mental illness on people's quality of life are estimated at £41.8 billion per annum in England and wider costs to the national economy in terms of welfare benefits, lost productivity at work etc. mount to some £77 billion a year (National Mental Health, NHS Stat 2018).

Further studies will enhance the insight for assessment, classification of certain psychological disorders and therapeutic alliance. Moderating effects are identified in this research; however, it is unclear why they have the effect they do. Therefore, explanations derived from empirical research will contribute to our understanding and prediction under Izard's theory for guiding analyses.

Future research will challenge the validation of the Nottingham Emotional Scale (NEScale) with a design-based framework with probability sampling to improve connecting generalizations prospectively. The result would be an "experiment within a survey," which would clearly permit connecting generalizations (Smith and Sugden 1988, Shadish, Cook et al. 2002)

Moreover, future studies in a variety of settings and involving diverse cultures and socio-politic and economic demographics would provide data for further validation and generalization of this scale.

Collaboration with the tools provided by evolutionary psychology and psychiatry, medical history, disease related and immunological and health outcomes will inform the research framework of NEScale of possible actual close relationships revealing negative and positive outcomes whether they began or worsened after the stressful event. For example, the biosocial model developed by Dickerson et al (2004) posits that conditions characterized by social evaluation or rejection produce a coordinated psychobiological response. They found that threats of acute social-self increase pro-inflammatory cytokine activity and cortisol, together with an increase in shame.

A positive emotion-based intervention through NEScale results will test the hypothesis of whether positive emotion knowledge (understanding of the expressions, feelings, and functions of positive emotions) promotes effectively adaptive behaviour and well-being of at-risk populations such as unemployed and homeless people.

Finally, a positive societal impact is possible through different routes to public engagement with research. Policy-making informs government policies and regulation on financial hardship and emotional well-being. NEScale as a self-report tool of emotional context and intensity of financial stress will contribute towards assessing, comparing and improving social indicators and models for quality of life.

Finally, a possible negative impact of NEScale is that it is possible to use NEScale as an emotional profile scale to assess psychological resilience in the workplace, creating in that way employment inequality due to psychological resilience differences. This may prevent employees from having the same access to opportunity.

Appendix 1: The Lexicon of Emotions

(Storm and Storm 1987)

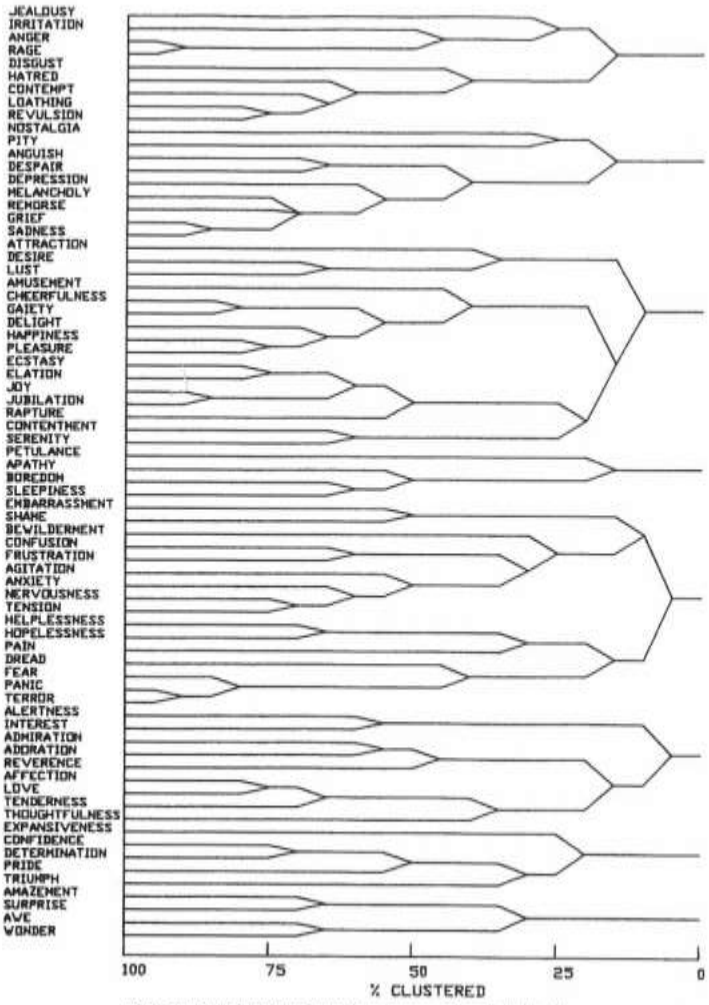


Figure 1. Hierarchical clustering of 72 emotion terms (Sample 1, $N = 41$).

Appendix 2: Four Models of Basic Emotion

(Tracy and Randles 2011)

Theoretically and empirically supported basic emotions according to each model			
IZARD	**PANKSEPP & WATT**	**LEVENSON**	**EKMAN & CORDARO**
Happiness	PLAY	Enjoyment	Happiness
Sadness	PANIC/GRIEF	Sadness	Sadness
Fear	FEAR	Fear	Fear
Anger	RAGE	Anger	Anger
Disgust		Disgust	Disgust
Interest	SEEKING	Interest	
Contempt			Contempt
	LUST	Love	
	CARE	Relief	Surprise

Appendix 3 Similar Meaning Identification Process

Emotions with shared meaning								
	Izard	Panksepp & Watt	Levenson	Ekman &Cordaro	Storm & Storm 72 Taxonomy			
1	Happiness ευτυχία			Happiness				
2		Play παιχνίδι						
3			Enjoyment απόλαυση		Amusement διασκέδαση	Cheerfulness φαιδρότητα	Gaiety ευθυμία	Delight απόλαυση
4	Sadness θλίψη	Grief	Sadness	Sadness	Melancholia	Grief	Sadness	
5		Panic πανικός			Dread τρόμος	Panic		
6	Fear φόβος	Fear	Fear	Fear	Fear			
7	Anger θυμός		Anger	Anger	Anger			
8		Rage οργή			Rage			
9	Disgust αηδία		Disgust	Disgust	Disgust	Revulsion μίσος/αποστροφή		
10	Interest ενδιαφέρον		Interest		Interest			
11		Seeking προμένω						
12	Contempt περιφρόνηση			Contempt	Contempt			
13		Lust λαγνεία						
14		Care φροντίδα						
15			Love					

			αγάπη			
16			Relief ανακούφιση			
17				Surprise έκπληξη	Amazement	Surprise
18					Jealousy ζήλεια	
19					Irritation εκνευρισμός	
20					Nostalgia	
21					Anguish αγωνία	
22					Despair απελπισία	
23					Remorse τύψεις	
24					Ecstasy	Rapture έκσταση
25					Serenity γαλήνη	
26					Petulance παραφορά	
27					Apathy	
28					Boredom	
29					Sleepiness	
30					Embarrassment	Bewilderment αμηχανία
31					Anxiety ανησυχία	
32					Agitation ταραχή	Nervousness Νευρικότητα
33					Frustration ματαίωση	
34					Tension ένταση	
35					Helplessness ανημποριά	
36					Hopelessness απελπισία	
37					Pain	
38					Alertness ετοιμότητα	
39					Admiration θαυμασμός	
40					Reverence ευλάβεια	Awe δέος
41					Affection τρυφερότητα	Tenderness τρυφερότητα
42					Thoughtfulness σκεπτικότητα	
43					Expansiveness εξέλιξη	
44					Confidence εμπιστοσύνη	

45					Determination αποφασιστικότητα	
46					Pride υπερηφάνεια	
47					Triumph θρίαμβος	
48					Contentment ικανοποίηση	
49					Depression	
50					Pity κρίμα	
51					Terror τρόμος	
52					Hatred έχθρα	Loathing αποστροφή
53					Attraction έλξη	Desire επιθυμία
54					Wonder απορία/αναρωτιέμαι	
55					Jubilation αγαλλίαση	
56					Elation έξαρση	
57					Confusion σύγχυση	
58					Adoration λατρεία	

Appendix 4 Questionnaire (58 items) & Open Questions

	δεν αισθάνομαι	**σπάνια**	**μερικές φορές**	**πολύ συχνά**	**όλη την ώρα**
	I do not feel	**I feel rarely**	**I feel sometimes**	**I feel very often**	**I feel all the time**
1. Ευτυχία (happiness)	□	□	□	□	□
2. Παιχνίδι (play)	□	□	□	□	□
3. Απόλαυση (enjoyment)	□	□	□	□	□
4. Θλίψη (sadness)	□	□	□	□	□
5. Πανικός (panic)	□	□	□	□	□
6. Φόβος (fear)	□	□	□	□	□
7. Θυμός (anger)	□	□	□	□	□
8. Οργή (rage)	□	□	□	□	□
9. Αηδία (disgust)	□	□	□	□	□
10. Ενδιαφέρον (interest)	□	□	□	□	□
11. Προσμένω (seeking)	□	□	□	□	□
12. Περιφρόνηση (contempt)	□	□	□	□	□
13. Λαγνεία (lust)	□	□	□	□	□
14. Φροντίδα (care)	□	□	□	□	□
15. Αγάπη (love)	□	□	□	□	□
16. Ανακούφιση (relief)	□	□	□	□	□
17. Έκπληξη (surprise)	□	□	□	□	□
18. Ζήλεια (jealousy)	□	□	□	□	□
19. Εκνευρισμός (irritation)	□	□	□	□	□
20. Νοσταλγία (nostalgia)	□	□	□	□	□
21. Αγωνία (anguish)	□	□	□	□	□
22. Απελπισία (despair)	□	□	□	□	□
23. Τύψεις (remorse)	□	□	□	□	□
24. Έκσταση (ecstasy)	□	□	□	□	□
25. Γαλήνη (serenity)	□	□	□	□	□
26. Παραφροσύνη (petulance)	□	□	□	□	□
27. Απάθεια (apathy)	□	□	□	□	□
28. Ανία (boredom)	□	□	□	□	□
29. Υπνηλία (sleepiness)	□	□	□	□	□
30. Αμηχανία	□	□	□	□	□

(embarrassment)					
31. Άγχος (anxiety)	□	□	□	□	□
32. Νευρικότητα (nervousness)	□	□	□	□	□
33. Ματαίωση (frustration)	□	□	□	□	□
34. Ένταση (tension)	□	□	□	□	□
35. Ανημπορια (helplessness)	□	□	□	□	□
36. Απελπισία (hopelessness)	□	□	□	□	□
37. Πόνος (pain)	□	□	□	□	□
38. Ετοιμότητα (alertness)	□	□	□	□	□
39. Θαυμασμός (admiration)	□	□	□	□	□
40. Ευλάβεια (reverence)	□	□	□	□	□
41. Τρυφερότητα (affection)	□	□	□	□	□
42. Σκεπτικότητα (thoughtfulness)	□	□	□	□	□
43. Εξέλιξη (expansiveness)	□	□	□	□	□
44. Εμπιστοσύνη (confidence)	□	□	□	□	□
45. Αποφασιστικότητα (determination)	□	□	□	□	□
46. Υπερηφάνεια (pride)	□	□	□	□	□
47. Θρίαμβος (triumph)	□	□	□	□	□
48. Ικανοποίηση (contentment)	□	□	□	□	□
49. Κατάθλιψη (depression)	□	□	□	□	□
50. Κρίμα (pity)	□	□	□	□	□
51. Τρόμος (terror)	□	□	□	□	□
52. Έχθρα (hatred)	□	□	□	□	□
53. Έλξη (attraction)	□	□	□	□	□
54. Αναρωτιέμαι (wonder)	□	□	□	□	□
55. Αγαλλίαση (jubilation)	□	□	□	□	□
56. Έξαρση (elation)	□	□	□	□	□
57. Σύγχυση (confusion)	□	□	□	□	□
58. Λατρεία (adoration)	□	□	□	□	□

21. Is there anything else you want to add?
22. What is the most dominant feeling that you have at the moment? Can you provide an

example?

23. What is the most dominant thought that you have at the moment? Can you provide an example?

24. What types of things have made you upset in your society? Can you provide an example?

25. How did you react to those situations?

Appendix 5: Information Personal Letter - Προσωπική Επιστολή Ενημέρωσης

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
www.nottingham.ac.uk

Dears, / Αγαπητοί,

I am a doctoral candidate in Clinical Psychology at the University of Nottingham, England, UK. I am conducting a research study for my doctoral dissertation under the direction of Professor in Health Psychology Nigel Hunt, Medical School, Division of Psychiatry. Job loss is a life event in which paid employment is involuntarily taken away from an individual. As a significant life event, it is one of the top 10 traumatic life experiences. Many emotions come into play when unemployed. In particular, losing a job will bring up feelings we cannot always put into words. / Είμαι υποψήφια διδάκτορας στην κλινική ψυχολογία στο Πανεπιστήμιο του Νόττινγχαμ, Αγγλία, Ηνωμένο Βασίλειο. Διεξάγω μια ερευνητική μελέτη για τη διδακτορική μου διατριβή υπό την καθοδήγηση του καθηγητή της Ψυχολογίας Υγείας Nigel Hunt, Ιατρικής Σχολής, Τμήματος Ψυχιατρικής. Η απώλεια θέσεων εργασίας είναι ένα συμβάν ζωής στο οποίο η αμειβόμενη εργασία αφαιρείται ακούσια από ένα άτομο. Ως σημαντικό γεγονός ζωής, είναι μια από τις κορυφαίες 10 εμπειρίες τραυματικής εμπειρίας ζωής. Πολλά συναισθήματα μπαίνουν στο παιχνίδι όταν είμαστε άνεργοι. Ειδικότερα, η απώλεια μιας δουλειάς θα δημιουργήσει συναισθήματα που δεν μπορούμε πάντα να βάλουμε σε λέξεις.

What is the purpose of the study? / Ποιος είναι ο σκοπός της μελέτης;

My doctoral study involves a web-based survey research in which we aim to gain an understanding of the emotional changes over time, if any, within the flow of socio-economic and political changes in Greece. Respondents will be asked to indicate to what extent they experience the 58 specific emotions and open questions are used by asking the participants to add any other terms helping them describe their current emotional state and if there is a need to determine any single emotion or keywords. Gender differences will also be taken into account in measuring the role of ruptures in emotional change. / Η διδακτορική μου διατριβή περιλαμβάνει μια έρευνα με βάση το διαδίκτυο, στην οποία στοχεύουμε να κατανοήσουμε τις συναισθηματικές αλλαγές με την πάροδο του χρόνου, εάν υπάρχουν, στο πλαίσιο της ροής των κοινωνικό-οικονομικών και πολιτικών αλλαγών στην Ελλάδα. Οι ερωτηθέντες θα κληθούν να υποδείξουν σε ποιο βαθμό βιώνουν τα 58 συγκεκριμένα συναισθήματα και υπάρχουν ανοιχτές ερωτήσεις ζητώντας από τους συμμετέχοντες να προσθέσουν άλλους όρους που τους βοηθάει να περιγράψουν την παρούσα συναισθηματική τους κατάσταση και αν υπάρχει ανάγκη να επιλεχθεί συναίσθημα ή λέξεις-κλειδιά. Οι διαφορές φύλου θα ληφθούν επίσης υπόψη για τη μέτρηση του ρόλου των διακυμάνσεων στις συναισθηματικές αλλαγές.

Participants' Inclusion Criteria / Κριτήρια Επιλογής Συμμετεχόντων
In this research, the population is defined as: Στην έρευνα αυτή ο πληθυσμός ορίζεται ως

- **men and women with age over 20 years** / άνδρες και γυναίκες ηλικίας άνω των 20 ετών
- **being employed or unemployed** / εργαζόμενοι ή άνεργοι
- **men and women with higher education (***BA/BSc, MA/MSC, PhD or Postdoc)* / άνδρες και γυναίκες με ανώτατη εκπαίδευση (BA/BSc, MA/MSC, PhD ή Postdoc)

Participants' Exclusion Criteria / Κριτήρια Αποκλεισμού Συμμετεχόντων

Men and women with / Άνδρες και γυναίκες με

- **any long-term illness** / οποιαδήποτε μακροχρόνια ασθένεια
- **health problems or disability that, with or without the use of aids or medication, limits their daily activities** / προβλήματα υγείας, η αναπηρίας που, με ή χωρίς τη χρήση φαρμάκων, περιορίζουν τις καθημερινές τους δραστηριότητες
- **self-employed (having their own business)** / αυτοαπασχολούμενοι (που έχουν δική τους επιχείρηση)

Information you need to know: / Πληροφορίες που πρέπει να ξέρετε

- **Your name will not be included on any documents**. /Το όνομα σας δεν θα συμπεριληφθεί σε κανένα κείμενο
- **You cannot be identified from any of (the information collected) this information**. / Δεν μπορείτε να ταυτοποιηθείτε από καμία από τις πληροφορίες (πού έχουν συλλεχθεί)
- **This informed consent (you agree to) will not be kept with any of the other documents completed with this project**. / Αυτό το έντυπο συγκατάθεσης (που συμφωνείτε) δεν θα κρατηθεί με κανένα άλλο έντυπο που έχει συμπληρωθεί με αυτή την έρευνα.
- **Your participation in this research is entirely voluntary. You have the right to withdraw at any point of the study, for any reason, and without any consequence.** / Η συμμετοχή σας σε αυτή την έρευνα είναι απολύτως εθελοντική. Έχετε το δικαίωμα να αποσυρθείτε σε οποιοδήποτε σημείο της μελέτης, για οποιοδήποτε λόγο, και χωρίς καμία συνέπεια.

This project and NEScale research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies. If you have questions or concerns regarding this research, please contact the Researcher or Research Advisor. If you have any questions, concerns, or reports regarding your rights as a research participant, please contact the University of Nottingham, Medical School, UK. / Αυτή η μελέτη και η έρευνα NEScale Κλίμακα έχει ελεγχθεί και εγκριθεί από το Πανεπιστήμιο του Nottingham, Ηνωμένο Βασίλειο. Το Πανεπιστήμιο έχει αποφασίσει ότι η έρευνα αυτή πληρεί τις ηθικές υποχρεώσεις που απαιτούνται από τις πολιτικές του Πανεπιστημίου. Αν έχετε απορίες ή ανησυχίες σχετικά με την έρευνα αυτή, παρακαλούμε επικοινωνήστε με την Ερευνήτρια ή Σύμβουλο Έρευνας. Αν έχετε οποιεσδήποτε απορίες, ανησυχίες, ή τις αναφορές σχετικά με τα δικαιώματά σας ως συμμετέχων στην έρευνα, παρακαλείστε να επικοινωνήσετε με το Πανεπιστήμιο του Nottingham, Ιατρική Σχολή, Ηνωμένο Βασίλειο.

Research Team/ Ερευνητική Ομάδα

Research Supervisor –Επόπτης Έρευνας
Professor Nigel Hunt
Associate Professor in Health Psychology
Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

PhD Researcher / Ερευνήτρια
Mrs. Ioanna Karaoulani
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484 – +30 6936586609
e: lwxik2@nottingham.ac.uk

Appendix 6 Research Brochure

VOLUNTEERS NEEDED

ΧΡΕΙΑΖΟΜΑΣΤΕ ΕΘΕΛΟΝΤΕΣ



The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Aim of Research / Σκοπός Έρευνας

Understanding of unemployed people feelings and emotional state on the present socio-economical changes in Greece

Πως μπορούμε να κατανοήσουμε τις συναισθηματικές αλλαγές των Ελλήνων στις τωρινές κοινωνικό-οικονομικές και πολιτικές αλλαγές στην Ελλάδα

Research
Emotional Reactions in the Unemployment during Economic Recession in Greece

Έρευνα
Συναισθηματικές Αντιδράσεις της Ανεργίας στη διάρκεια Οικονομικής Κρίσης στην Ελλάδα

Inclusion Criteria / Κριτήρια Συμμετοχής

a) men and women with age over 20 years / άνδρες και γυναίκες άνω των 20 χρονών
b) being employed or unemployed / εργαζόμενοι ή άνεργοι
c) men and women with higher education (BA/BSc, MA/MSc, PhD or Postdoc) / άνδρες και γυναίκες με ανώτατη εκπαίδευση ((BA/BSc, MA/MSc, PhD or Postdoc)

For more Information Contact
Για περισσότερες Πληροφορίες Επικοινωνήστε

Researcher/ Ερευνήτρια :
Mrs Ioanna Karaoulani / Κα Ιωάννα Καραουλάνη
e:lwxik2@nottingham.ac.uk

Research Supervisor: Επόπτης Έρευνας
Professor Nigel Hunt
e: nigel.hunt@nottingham.ac.uk

Appendix 7: Study 1 - Information Sheet

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
www.nottinaham.ac.uk

INFORMATION SHEET / ΕΝΤΥΠΟ ΕΝΗΜΕΡΩΣΗΣ

PURPOSE / ΣΚΟΠΟΣ

This is a Paper and Web-based survey research in which we aim to gain an understanding of the emotional changes over time, if any, within the flow of socio-economic and political changes in Greece. Proceeding with the web-based survey will involve your consent to participate in this research. If you decide to participate, you will answer questions online. You will first be asked demographic information such as your age and education. If you choose to participate, you will be asked to rate your emotions by entering your responses directly on the emotional research blog using the visual analogue rating scale.
Πρόκειται για μια έρευνα μέσω Ερωτηματολογίου & Διαδικτύου, στην οποία στοχεύουμε να κατανοήσουμε τις συναισθηματικές αλλαγές με την πάροδο του χρόνου, εάν υπάρχουν, στο πλαίσιο της ροής των κοινωνικό-οικονομικών και πολιτικών αλλαγών στην Ελλάδα. Η διεξαγωγή της έρευνας στο διαδίκτυο θα περιλαμβάνει τη συγκατάθεσή σας για συμμετοχή σε αυτή την έρευνα. Εάν αποφασίσετε να συμμετάσχετε θα απαντήσετε σε ερωτήσεις στο διαδίκτυο. Αρχικά θα σας ζητηθούν δημογραφικά στοιχεία, όπως η ηλικία και η εκπαίδευσή σας. Αν επιλέξετε να συμμετάσχετε, θα σας ζητηθεί να βαθμολογήσετε τα συναισθήματά σας εισάγοντας τις απαντήσεις σας απευθείας στο ιστολόγιο της συναισθηματικής έρευνας χρησιμοποιώντας την οπτική κλίμακα αναλογικής βαθμολογικής αξιολόγησης.

To qualify for this study, I am looking for / Για να μπορέσετε να συμμετάσχετε στη μελέτη αυτή, ψάχνω

a) men and women with age over 20 years / άνδρες και γυναίκες ηλικίας άνω των 20 ετών
b) being employed or unemployed / εργαζόμενοι ή άνεργοι
c) not self-employed (having their own business) / αυτοαπασχολούμενοι (που έχουν δική τους επιχείρηση)
d) men and women with higher education (BA/BSc, MA/MSC, PhD or Postdoc) / άνδρες και γυναίκες με ανώτατη εκπαίδευση (BA/BSc, MA/MSC, PhD ή Postdoc)
e) have Internet access and E-mail account and computer literate / έχουν πρόσβαση στο Διαδίκτυο και λογαριασμό ηλεκτρονικού ταχυδρομείου και γνωρίζουν ηλεκτρονικό υπολογιστή

The purpose of understanding the emotional changes is to develop a scale for the unique needs of the unemployed people. No records will be used for any purpose other than to do this research. The records will either be destroyed or kept securely by the University in accordance with ethical regulations for a period of 7 years. All information that is collected for the research will be kept strictly confidential. Your name or any other information that might identify you in the written record of the research will not be included.

Ο σκοπός της κατανόησης των συναισθηματικών αλλαγών είναι να αναπτυχθεί ένα πρόγραμμα ηλεκτρονικής παρέμβασης συναισθηματικής εκπαίδευσης προσαρμοσμένο στις μοναδικές ανάγκες των ανέργων με οικογένειες. Δεν θα χρησιμοποιηθούν αρχεία για οποιονδήποτε σκοπό εκτός από την πραγματοποίηση αυτής της έρευνας. Τα αρχεία είτε θα καταστραφούν είτε θα διατηρηθούν με ασφάλεια από το Πανεπιστήμιο σύμφωνα με τους κανόνες δεοντολογίας για περίοδο 7 ετών. Όλες οι πληροφορίες που συλλέγονται για την έρευνα θα διατηρούνται αυστηρά εμπιστευτικές. Το όνομά σας ή οποιαδήποτε άλλη πληροφορία που μπορεί να σας εντοπίσει στο γραπτό αρχείο της έρευνας δεν θα συμπεριληφθεί.

Research Team/ Ερευνητική Ομάδα

Research Supervisor –Επόπτης Έρευνας
Professor Nigel Hunt
Associate Professor in Health Psychology
Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

PhD Researcher / Ερευνήτρια
Mrs. Ioanna Karaoulani
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484 – +30 6936586609
e: lwxik2@nottingham.ac.uk

Please print or save a copy of this page for your records.
Εκτυπώστε ή αποθηκεύστε ένα αντίγραφο αυτής της σελίδας για τα αρχεία σας.

Appendix 8: Study 1 - Consent Form

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
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CONSENT FORM / ΕΝΤΥΠΟ ΣΥΓΚΑΤΑΘΕΣΗΣ

Thank you for agreeing to participate in this Pilot paper and web survey research. This web survey is designed to gain an understanding of the emotional changes over time, if any, within the flow of socio-economic and political changes in Greece. You will be asked to complete an online survey about emotions. You will be asked to rate your emotions by entering your responses directly on the research web survey using a visual analogue rating scale. Your participation in this research is valuable, it will help us understand if and how emotions change under uncertainties over time. The purpose of understanding the emotional changes is to develop a scale geared to the unique needs of the unemployed people. I understand that the researcher may wish to publish results from the research. If this does occur I understand that my identity will be concealed.

Σας ευχαριστούμε που συμφωνήσατε να συμμετάσχετε σε αυτή την Πιλοτική έρευνα στο διαδίκτυο & Ερωτηματολογίου. Αυτή η διαδικτυακή έρευνα έχει σχεδιαστεί για να κατανοήσει τις συναισθηματικές αλλαγές με την πάροδο του χρόνου, εάν υπάρχουν, μέσα στη ροή των κοινωνικό-οικονομικών και πολιτικών αλλαγών στην Ελλάδα. Θα σας ζητηθεί να συμπληρώσετε μια ηλεκτρονική έρευνα σχετικά με τα συναισθήματα. Θα σας ζητηθεί να αξιολογήσετε τα συναισθήματά σας εισάγοντας τις απαντήσεις σας απευθείας στη διαδικτυακή έρευνα χρησιμοποιώντας μια οπτική κλίμακα αναλογικής αξιολόγησης. Η συμμετοχή σας σε αυτή την έρευνα είναι πολύτιμη, θα μας βοηθήσει να καταλάβουμε εάν και πώς μεταβάλλονται τα συναισθήματα κάτω από αβεβαιότητες με την πάροδο του χρόνου. Ο σκοπός της κατανόησης των συναισθηματικών αλλαγών είναι να δημιουργηθεί μια κλίμακα στις μοναδικές ανάγκες των ανέργων. Κατανοώ ότι ο ερευνητής μπορεί να επιθυμεί να δημοσιεύσει αποτελέσματα από την έρευνα. Αν συμβεί αυτό, καταλαβαίνω ότι η ταυτότητά μου θα αποκρύπτεται.

Yes /Ναι **No**/ Όχι

Information you need to know: / Πληροφορίες που πρέπει να ξέρετε

- **Your name will not be included on any documents.** /Το όνομα σας δεν θα συμπεριληφθεί σε κανένα κείμενο
- **You cannot be identified from any of (the information collected) this information.** / Δεν μπορείτε να ταυτοποιηθείτε από καμία από τις πληροφορίες (πού έχουν συλλεχθεί)
- **This informed consent (you agree to) will not be kept with any of the other documents completed with this project**. / Αυτό το έντυπο συγκατάθεσης (που συμφωνείτε) δεν θα κρατηθεί με κανένα άλλο έντυπο που έχει συμπληρωθεί με αυτή την έρευνα.
- **Your participation in this research is entirely voluntary. You have the right to withdraw at any point of the study, for any reason, and without any consequence. If you do not wish to complete this survey just close your browser**. / Η συμμετοχή σας σε αυτή την έρευνα είναι απολύτως εθελοντική. Έχετε το δικαίωμα να αποσυρθείτε σε οποιοδήποτε χρονικό σημείο της μελέτης, για οποιοδήποτε λόγο, και χωρίς καμία συνέπεια. Εάν δεν θέλετε να ολοκληρώσετε αυτήν την έρευνα, απλώς κλείστε τον περιηγητή σας.

This project and UNEScale research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies. If you have questions or concerns regarding this research, please contact the Researcher or Research Advisor. If you have any questions, concerns, or reports regarding your rights as a research participant, please contact the University of Nottingham, Medical School, UK. / Αυτή η μελέτη και η έρευνα UNEScale Κλίμακα έχει ελεγχθεί και εγκριθεί από το Πανεπιστήμιο του Nottingham, Ηνωμένο Βασίλειο. Το Πανεπιστήμιο έχει αποφασίσει ότι η έρευνα αυτή πληρεί τις ηθικές υποχρεώσεις που απαιτούνται από τις πολιτικές του Πανεπιστημίου. Αν έχετε απορίες ή ανησυχίες σχετικά με την έρευνα αυτή, παρακαλούμε επικοινωνήστε με την Ερευνήτρια ή Σύμβουλο Έρευνας. Αν έχετε οποιεσδήποτε απορίες, ανησυχίες, ή τις αναφορές σχετικά με τα δικαιώματά σας ως συμμετέχων στην έρευνα, παρακαλείστε να επικοινωνήσετε με το Πανεπιστήμιο του Nottingham, Ιατρική Σχολή, Ηνωμένο Βασίλειο.

Research Team/ Ερευνητική Ομάδα

Research Supervisor –Επόπτης Έρευνας
Professor Nigel Hunt
Associate Professor in Health Psychology
Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

PhD Researcher / Ερευνήτρια
Mrs. Ioanna Karaoulani
Faculty of Medicine
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Εκτυπώστε ή αποθηκεύστε ένα αντίγραφο αυτής της σελίδας για τα αρχεία σας.

Appendix 9: Study 1 - Demographic Data Section

Demographic Data/ Δημογραφικά

Name & Last Name/ Ονοματεπώνυμο:

Age/ Ηλικία: **Male**/ Άνδρας □ **Female**/ Γυναίκα □

Current Employment Status/ Τωρινή Κατάσταση Απασχόλησης

Employed/ Εργαζόμενοι □ **Employment Duration**/ Διάστημα Εργασίας:

Type of Employment/ Είδος Εργασίας:

Unemployed/ Άνεργοι □ **Unemployment Duration**/ Διάστημα Ανεργίας:

Education/ Εκπαίδευση

BA/BSc/ Βασικό πτυχίο □ **Field of Subject**/ Τομέας Σπουδών:
MA/MSc/ Μάστερ □
PhD/ Διδακτορικό □
Postdoc/Μεταδιδακτορικό □

Family Status/Οικογενειακή Κατάσταση

Single/ Ελεύθερος -η	**Yes**/ Ναι □	**No**/ Όχι □
Married/ Παντρεμένος -η	**Yes**/ Ναι □	**No**/ Όχι □
Marriage Period/ Διάστημα Γάμου		
Divorced/ Διαζευγμένος-η	**Yes**/ Ναι □	**No**/ Όχι □
Divorce Period/Διάστημα Διαζυγίου		
Widowed/ Χηρευάμενος-η	**Yes**/ Ναι □	**No**/ Όχι □
Mourning Period/ Διάστημα Πένθους		

Με παιδιά (with children) **Yes**/ Ναι □ **No**/ Όχι □

How many/ Πόσα: **Age & Gender**/ Ηλικία & Φύλο:

If you have children/ Αν έχετε παιδιά
Living Home & Working/ Ζούνε στο σπίτι & Εργάζονται □
Living Home & Not Working/ Ζούνε στο σπίτι & δεν Εργάζονται □
Not live Home & Working/ Δε ζούνε στο σπίτι & Εργάζονται □
If yes, do they contribute to household expenses? / Αν ναι, συνεισφέρουν στα έξοδα σπιτιού;
Yes/ **Ναι** □ **No**/ Όχι □

Do you have any long-term illness, health problems or disability that, with or without the use of aids or medication, limits your daily activities? / Έχετε κάποια μακροχρόνια ασθένεια, προβλήματα υγείας ή αναπηρίας που, με ή χωρίς τη χρήση βοηθημάτων ή φαρμακευτική αγωγή, περιορίζει τις καθημερινές δραστηριότητές σας;

Yes/ **Ναι** □ **No**/ Όχι □

If yes, please describe/ Αν ναι, παρακαλώ περιγράψτε**:**

Appendix 10: NEScale - 31 items



Πείτε μας πως Αισθάνεστε, χρησιμοποιώντας την παρακάτω κλίμακα (Tell us How you Feel, using the following scale)

1 **Δεν αισθάνομαι** **I do not feel**	**2** **Σπάνια** **I feel rarely**	**3** **Μερικές φορές** **I feel sometimes**	**4** **Πολύ συχνά** **I feel very often**	**5** **Όλη την ώρα** **I feel all the time**

1. Ευτυχία (happiness)	1□	2□	3□	4□	5□
2. Απόλαυση (enjoyment)	1□	2□	3□	4□	5□
3. Στεναχώρια (sadness)	1□	2□	3□	4□	5□
4. Θλίψη πένθους (mourning sorrow)	1□	2□	3□	4□	5□
5. Πανικός (panic)	1□	2□	3□	4□	5□
6. Φόβος (fear)	1□	2□	3□	4□	5□
7. Θυμός (anger)	1□	2□	3□	4□	5□
8. Οργή (rage)	1□	2□	3□	4□	5□
9. Αγάπη (love)	1□	2□	3□	4□	5□
10. Κακία (meaniness)	1□	2□	3□	4□	5□
11. Ζήλεια (jealousy)	1□	2□	3□	4□	5□
12. Εκνευρισμός (irritation)	1□	2□	3□	4□	5□
13. Νοσταλγία (nostalgia)	1□	2□	3□	4□	5□
14. Αγωνία (agony)	1□	2□	3□	4□	5□
15. Απελπισία (despair)	1□	2□	3□	4□	5□
16. Τύψεις (guilt)	1□	2□	3□	4□	5□
17. Ηρεμία (tranquillity)	1□	2□	3□	4□	5□
18. Απάθεια (apathy)	1□	2□	3□	4□	5□
19. Ανία (boredom)	1□	2□	3□	4□	5□
20. Υπνηλία (sleepiness)	1□	2□	3□	4□	5□
21. Άγχος (stress)	1□	2□	3□	4□	5□
22. Εμπιστοσύνη σε μένα (trust in me)	1□	2□	3□	4□	5□
23. Αποφασιστικότητα (determination)	1□	1□	2□	3□	4□
24. Υπερηφάνεια (pride)	1□	1□	2□	3□	4□
25. Ικανοποίηση από τη Ζωή σου (life satisfaction	1□	1□	2□	3□	4□
26. Κατάθλιψη (depression)	1□	1□	2□	3□	4□
27. Αβεβαιότητα για το μέλλον (uncertainty about the future)	1□	1□	2□	3□	4□
28. Κοινωνική Αδικία (social injustice)	1□	1□	2□	3□	4□
29. Μοναξιά (loneliness)	1□	1□	2□	3□	4□
30. Κούραση(tiredness)	1□	1□	2□	3□	4□
31. Ματαιότητα της Ζωής (the vanity of life)	1□	1□	2□	3□	4□

Appendix 11: Study 2- Demographic Data

Demographic Data/ Δημογραφικά

Name & Last Name/ Ονοματεπώνυμο:

Age/ Ηλικία: **Male**/ Άνδρας □ **Female**/ Γυναίκα □

Current Employment Status/ Τωρινή Κατάσταση Απασχόλησης

Employed/ Εργαζόμενοι □ **Employment Duration**/ Διάστημα Εργασίας:

Type of Employment/ Είδος Εργασίας:

Unemployed/ Άνεργοι □ **Unemployment Duration**/ Διάστημα Ανεργίας:

Education/ Εκπαίδευση

BA/BSc/ Βασικό πτυχίο □ **Field of Subject**/ Τομέας Σπουδών:
MA/MSc/ Μάστερ □
PhD/ Διδακτορικό □
Postdoc/Μεταδιδακτορικό □

Family Status/Οικογενειακή Κατάσταση

Single/ Ελεύθερος -η	**Yes**/ Ναι □	**No**/ Όχι □
Married/ Παντρεμένος -η **Marriage Period**/ Διάστημα Γάμου	**Yes**/ Ναι □	**No**/ Όχι □
Divorced/ Διαζευγμένος-η **Divorce Period**/Διάστημα Διαζυγίου	**Yes**/ Ναι □	**No**/ Όχι □
Widowed/ Χηρευάμενος-η **Mourning Period**/ Διάστημα Πένθους	**Yes**/ Ναι □	**No**/ Όχι □

Με παιδιά (with children) **Yes**/ Ναι □ **No**/ Όχι □

How many/ Πόσα: **Age & Gender**/ Ηλικία & Φύλο:

Do you have any long-term illness, health problems or disability that, with or without the use of aids or medication, limits your daily activities? / Έχετε κάποια μακροχρόνια ασθένεια, προβλήματα υγείας ή αναπηρίας που, με ή χωρίς τη χρήση βοηθημάτων ή φαρμακευτική αγωγή, περιορίζει τις καθημερινές δραστηριότητές σας;

Yes/ **Ναι** □ **No**/ Όχι □

If yes, please describe/ Αν ναι, παρακαλώ περιγράψτε**:**

Appendix 12: Study 2 – Information Sheet

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
www.nottinaham.ac.uk

INFORMATION SHEET / ΕΝΤΥΠΟ ΕΝΗΜΕΡΩΣΗΣ

PURPOSE / ΣΚΟΠΟΣ

This is a Paper and Web-based survey research in which we aim to gain an understanding of the emotional changes, if any, within the flow of socio-economic and political changes in Greece. Proceeding with the paper and web-based survey will involve your consent to participate in this research.. You will first be asked demographic information such as your age and education. If you choose to participate, you will be asked to rate your emotions by entering your responses directly on the emotional research visual analogue rating scale.
Πρόκειται για μια έρευνα μέσω Ερωτηματολογίου & Διαδικτύου, στην οποία στοχεύουμε να κατανοήσουμε τις συναισθηματικές αλλαγές με την πάροδο του χρόνου, εάν υπάρχουν, στο πλαίσιο της ροής των κοινωνικό-οικονομικών και πολιτικών αλλαγών στην Ελλάδα. Εάν αποφασίσετε να συμμετάσχετε θα απαντήσετε σε ερωτήσεις στο διαδίκτυο. Αρχικά θα σας ζητηθούν δημογραφικά στοιχεία, όπως η ηλικία και η εκπαίδευσή σας. Αν επιλέξετε να συμμετάσχετε, θα σας ζητηθεί να βαθμολογήσετε τα συναισθήματά σας εισάγοντας τις απαντήσεις σας απευθείας στο ιστολόγιο της συναισθηματικής έρευνας χρησιμοποιώντας την οπτική κλίμακα αναλογικής βαθμολογικής αξιολόγησης.

To qualify for this study, I am looking for / Για να μπορέσετε να συμμετάσχετε στη μελέτη αυτή, ψάχνω

a) men and women with age 25-65 years / άνδρες και γυναίκες ηλικίας 25-65
b) being employed or unemployed / εργαζόμενοι ή άνεργοι
c) not self-employed (having their own business) / αυτοαπασχολούμενοι (που έχουν δική τους επιχείρηση)
d) men and women with higher education (BA/BSc, MA/MSC, PhD or Postdoc) / άνδρες και γυναίκες με ανώτατη εκπαίδευση (BA/BSc, MA/MSC, PhD ή Postdoc)

The purpose of understanding the emotional changes is to develop a scale for the unique needs of the unemployed people with families. No records will be used for any purpose other than to do this research. The records will either be destroyed or kept securely by the University in accordance with ethical regulations for a period of 7 years. All information that is collected for the research will be kept strictly confidential. Your name or any other information that might identify you in the written record of the research will not be included.
Ο σκοπός της κατανόησης των συναισθηματικών αλλαγών είναι να αναπτυχθεί ένα πρόγραμμα ηλεκτρονικής παρέμβασης συναισθηματικής εκπαίδευσης προσαρμοσμένο στις μοναδικές ανάγκες των ανέργων με οικογένειες. Δεν θα χρησιμοποιηθούν αρχεία για οποιονδήποτε σκοπό εκτός από την πραγματοποίηση αυτής της έρευνας. Τα αρχεία είτε θα καταστραφούν είτε θα διατηρηθούν με ασφάλεια

από το Πανεπιστήμιο σύμφωνα με τους κανόνες δεοντολογίας για περίοδο 7 ετών. Όλες οι πληροφορίες που συλλέγονται για την έρευνα θα διατηρούνται αυστηρά εμπιστευτικές. Το όνομά σας ή οποιαδήποτε άλλη πληροφορία που μπορεί να σας εντοπίσει στο γραπτό αρχείο της έρευνας δεν θα συμπεριληφθεί.

Research Team/ Ερευνητική Ομάδα

Research Supervisor –Επόπτης Έρευνας
Professor Nigel Hunt
Associate Professor in Health Psychology
Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

PhD Researcher / Ερευνήτρια
Mrs. Ioanna Karaoulani
Faculty of Medicine
Τμήμα Ιατρικής
t: +44(0) 115 846 6484 – +30 6936586609
e: lwxik2@nottingham.ac.uk

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Εκτυπώστε ή αποθηκεύστε ένα αντίγραφο αυτής της σελίδας για τα αρχεία σας.

Appendix 13: Study 2 – Consent Form

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International House, Jubilee Campus, Nottingham, NG8 1BB
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www.nottingham.ac.uk

CONSENT FORM / ΕΝΤΥΠΟ ΣΥΓΚΑΤΑΘΕΣΗΣ

Thank you for agreeing to participate in this paper and web survey research. This survey is designed to gain an understanding of the emotional changes, if any, within the flow of socio-economic and political changes in Greece. You will be asked to complete a survey about emotions. You will be asked to rate your emotions by entering your responses using a visual analogue rating scale. Your participation in this research is valuable, it will help us understand if and how emotions change under uncertainties over time. The purpose of understanding the emotional changes is to develop a scale geared to the unique needs of the unemployed people. I understand that the researcher may wish to publish results from the research. If this does occur I understand that my identity will be concealed.

Σας ευχαριστούμε που συμφωνήσατε να συμμετάσχετε σε αυτή την Πιλοτική έρευνα στο διαδίκτυο. Αυτή η διαδικτυακή έρευνα έχει σχεδιαστεί για να κατανοήσει τις συναισθηματικές αλλαγές με την πάροδο του χρόνου, εάν υπάρχουν, μέσα στη ροή των κοινωνικό-οικονομικών και πολιτικών αλλαγών στην Ελλάδα. Θα σας ζητηθεί να συμπληρώσετε μια ηλεκτρονική έρευνα σχετικά με τα συναισθήματα. Θα σας ζητηθεί να αξιολογήσετε τα συναισθήματά σας εισάγοντας τις απαντήσεις σας απευθείας στη διαδικτυακή έρευνα χρησιμοποιώντας μια οπτική κλίμακα αναλογικής αξιολόγησης. Η συμμετοχή σας σε αυτή την έρευνα είναι πολύτιμη, θα μας βοηθήσει να καταλάβουμε εάν και πώς μεταβάλλονται τα συναισθήματα κάτω από αβεβαιότητες με την πάροδο του χρόνου. Ο σκοπός της κατανόησης των συναισθηματικών αλλαγών είναι να δημιουργηθεί μια κλίμακα στις μοναδικές ανάγκες των ανέργων. Κατανοώ ότι ο ερευνητής μπορεί να επιθυμεί να δημοσιεύσει αποτελέσματα από την έρευνα. Αν συμβεί αυτό, καταλαβαίνω ότι η ταυτότητά μου θα αποκρύπτεται.

Yes /Ναι **No**/ Όχι

Information you need to know: / Πληροφορίες που πρέπει να ξέρετε

- **Your name will not be included on any documents.** /Το όνομα σας δεν θα συμπεριληφθεί σε κανένα κείμενο
- **You cannot be identified from any of (the information collected) this information.** / Δεν μπορείτε να ταυτοποιηθείτε από καμία από τις πληροφορίες (πού έχουν συλλεχθεί)
- **This informed consent (you agree to) will not be kept with any of the other documents completed with this project**. / Αυτό το έντυπο συγκατάθεσης (που συμφωνείτε) δεν θα κρατηθεί με κανένα άλλο έντυπο που έχει συμπληρωθεί με αυτή την έρευνα.
- **Your participation in this research is entirely voluntary. You have the right to withdraw at any point of the study, for any reason, and without any consequence. If you do not wish to complete this survey just close your browser**. / Η συμμετοχή σας σε αυτή την έρευνα είναι απολύτως εθελοντική. Έχετε το δικαίωμα να αποσυρθείτε σε οποιοδήποτε χρονικό σημείο της μελέτης, για οποιοδήποτε λόγο, και χωρίς καμία συνέπεια. Εάν δεν θέλετε να ολοκληρώσετε αυτήν την έρευνα, απλώς κλείστε τον περιηγητή σας.

This project and NEScale research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies. If you have questions or concerns regarding this research, please contact the Researcher or Research Advisor. If you have any questions, concerns, or reports regarding your rights as a research participant, please contact the University of Nottingham, Medical School, UK. / Αυτή η μελέτη και η έρευνα NEScale Κλίμακα έχει ελεγχθεί και εγκριθεί από το Πανεπιστήμιο του Nottingham, Ηνωμένο Βασίλειο. Το Πανεπιστήμιο έχει αποφασίσει ότι η έρευνα αυτή πληρεί τις ηθικές υποχρεώσεις που απαιτούνται από τις πολιτικές του Πανεπιστημίου. Αν έχετε απορίες ή ανησυχίες σχετικά με την έρευνα αυτή, παρακαλούμε επικοινωνήστε με την Ερευνήτρια ή Σύμβουλο Έρευνας. Αν έχετε οποιεσδήποτε απορίες, ανησυχίες, ή τις αναφορές σχετικά με τα δικαιώματά σας ως συμμετέχων στην έρευνα, παρακαλείστε να επικοινωνήσετε με το Πανεπιστήμιο του Nottingham, Ιατρική Σχολή, Ηνωμένο Βασίλειο.

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Research Supervisor –Επόπτης Έρευνας
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Τμήμα Ιατρικής
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

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Appendix 14: Study 2 - Residence of participants outside Athens (N=796)

Residence of participants outside Athens (N=796) by geographic prefecture

Prefecture	Frequency	Percentage	Cumulative %
Thessaloniki	121	15.2%	15.2%
Lesbos	118	14.8%	30.0%
Kozani	66	8.3%	38.3%
Achaea	55	6.9%	45.2%
Crete*	41	5.2%	50.4%
Argolis	33	4.1%	54.5%
Preveza	33	4.1%	58.6%
Attica	25	3.1%	61.7%
Euboea	25	3.1%	64.8%
Ioannina	21	2.6%	67.4%
Larissa	18	2.3%	69.7%
Magnesia	18	2.3%	72.0%
Zakynthos	17	2.1%	74.1%
Aetolia-Acarnania	16	2.0%	76.1%
Thessaly	16	2.0%	78.1%
Imathia	14	1.8%	79.9%
Messenia	12	1.5%	81.4%
Kavala	11	1.4%	82.8%
Serres	10	1.3%	84.1%
Florina	8	1.0%	85.1%
Pieria	8	1.0%	86.1%
Dodecanese	7	.9%	87.0%
Phthiotis	7	.9%	87.9%
Xanthi	7	.9%	88.8%
Trikala	6	.8%	89.6%
Corinthia	6	.8%	90.4%
Pella	6	.8%	91.2%
Cyclades	5	.6%	91.8%
Drama	5	.6%	92.4%
Elis	4	.5%	92.9%
Kastoria	4	.5%	93.4%

Kilkis	4	.5%	93.9%
Laconia	4	.5%	94.4%
Arcadia	3	.4%	94.8%
Cephalonia	*3*	.4%	95.2%
Chios	3	.4%	95.6%
Evrytania	3	.4%	96.0%
Rhodope	3	.4%	96.4%
Thesprotia	3	.4%	96.8%
Chalkidiki	2	.3%	97.1%
Corfu (Kerkyra)	2	.3%	97.4%
Evros	2	.3%	97.7%
Lefkada	2	.3%	98.0%
Samos	2	.3%	98.3%
Arta	1	.1%	98.4%
Karditsa	1	.1%	98.5%
Phocis	1	.1%	98.6%
Outside Greece	14	1.8%	100.0%

** Crete encompasses 4 prefectures: Heraklion, Lasithi, Rethymno and Chania*

Appendix 15: Study 2 – Field of Study

Full responses for "4.a. Field of Study"

Category	Subcategories (examples with '-')	N
Education	Pedagogy 126	242
	Education 28	
	Preschool education 64	
	Special education 24	
Psychology and Sociology	Psychology 55	157
	Work therapy 10	
	Speech therapy 6	
	Counselling/Psychotherapy	
	Occupational therapy	
	Human resource	
	Sociology 47	
	Social Work 21	
	Social Studies 12	
	Social Anthropology 2	
	Anthropology	
Literature and languages	Literature 85	147
	-Greek literature 5	
	-French Literature and Language 21	
	-Classical literature 3	
	-Chinese literature	
	-Italian literature and language 4	
	-Spanish literature	
	-German Language and literature 4	
	English language & Literature 51	
	Translation 7	
	Foreign Languages 3	
	French language and Culture	

Finance	Finance 135 -Economic Relations Finance management 10	145
Business Management & Administration	Business Management & Administration 127 -Production management Business 2 Environmental Management 2 Crisis management Civil management 8	140
Computers and IT	Information technology 97 Computers 38 Digital media 2	137
Nursing	Nursing 103 Baby nursing 17 Nursing assistant 5	125
Engineering and architecture	Engineering 60 -Aircraft engineer -Polytechnic Foremen 2 Architecture 11 Interior Architecture 5 Interior design 10 Industrial Design Civil engineering 21 Infrastructure 8	117
Accounting	Accounting 93 Computer accounting 3	98

	Computerization	
	Assistant accountant	
Arts	Music studies 10	62
	Musicology 3	
	Traditional music 2	
	Sound engineering 5	
	Makeup artist 2	
	Film studies	
	Theatre studies 2	
	Drama/Acting school 14	
	Set designer 3	
	Cameraman 2	
	Director of photography	
	Fine Arts 7	
	Photography 4	
	Art restoration 2	
	Hagiography 2	
	Animation 2	
Doctors	-Radiologist 6	53
	-Pathologist 2	
	-General medicine 2	
	-Dentist 2	
	-Psychiatrist 2	
	-Ophthalmologist	
	-Otorhinolaryngologist	
	-Foot doctor	
	-Cosmetic medicine	
	-Gynaecologist	
	-Cardiologist	

	-Speech pathology -Microbiology and urination	
Law		45
Food industry/technology	Food technology 29 Cooking 5 Chef 2 Cooking technician 2 Enologist 2 Pastry making 2 Gastronomy	43
Tourism	-Tourism and Hospitality Management 2 -Hotels 2	43
Mechanical engineering		42
Mathematics		38
Agronomy	Agronomy technology 3 Geotechnics 1	37
Chemistry	Biochemistry 11	36
History and Archaeology	History and Archaeology 15 Archaeology 8 History 12 -Art history	35
Philosophy		34
Marketing	-International Marketing	32
Sports and physical education	Sports academy 22	31

	-lifesaving -Greece swimming champion Physical education 9 -sports and physical education 3 -teacher of physical education	
Biology	Biology 15 Biotechnology 11 Microbiology Biomedical engineering 2	29
Electronics	-Electronic Engineering -Automation 2	28
Electrician	Electrician 17 Electrical engineer 8	25
School graduates	High-school 23 Primary school 1 Junior high school 1	25
Design	Design 16 -Fashion/clothes design 7 -Art design 2 Graphic design 8	24
Health	-Health and prevention 2 -Public health 2 -Social welfare	24
Physiotherapy		24
Theology		24
Communication	Communication 8 Telecommunications 7	23

	Media & communication 7 Communication and culture management	
Paramedical professions	-Medical laboratories 6 - Medical laboratories technician 2 -Teeth technician 4 -Assistant in medical laboratories -Health visitor 2 -Assistant microbiologist 5 -Assistant radiologist	21
Physics		20
Political science	Social politics 2	17
Environmental science	Environmental science 7 Forestry and natural resource management 6	13
Humanities studies	-Greek culture 3	12
Cosmetics		10
Geology		9
Police	Police academy 6 Policeman/woman 3	9
Diet and Nutrition		8
Merchant marine		8
Public relations		8
Secretarial Studies		8
Topography	Topographers 5 Agronomist topographers 2	7

Pharmaceutics	-Assistant pharmacist -Pharmaceutics technician	7
Armed forces	Army academy 3 Flight academy 2 Navy Army	7
Livestock production	Livestock production 2 Fish farming 2 Fish science 3	7
Hairdressing	-Hairdressing teacher	6
Journalism		6
Library science		6
Optician		6
Advertising		5
Geography	-GIS (geographic information systems) 2	4
Materials technology	Science and technology of materials 4 -Gas fuel technician	4
Plumbing	-Refrigeration technician 3 -Thermal plumbing installation	4
Statisticians		4

2.2 Full responses for "5.a.i. Type of Employment"

Types of employment reported

Response categories	Frequency	Subcategories/Examples
Private employee	316	
Public employee	31	
Other employment types	49	-Office work (supervisors 4, manager) 11, Permanent employment 9, Freelance 8, Owners (restaurants 2, technical company) 6, Part-time 4, Full-time 4, Businessman/woman 2, Seasonal 2, Contracted 2, Self-employed
Teaching and Education	188	-Teachers 68, University employees 31 (Aegean 28, National and Kapodistrian 2), Primary school teachers 31, Preschool education 21, Child education 11, Private lessons 11, Special education 4, Literature teacher 3, Primary school principals 3, School employees 2, Children education coordinator, Ballet teacher, Education consultant, Kindergarten intern, Physics teacher, Seminar teacher
Nursing	52	-Midwifery 4, Baby nursing 3, Supervisor nurse 2, Assistant male nurse, Caregiver
Secretarial Support	43	
Government employees	34	-Ministry of Development, Competitiveness and Shipping 17, Ministry employees 9, City Hall 3, Ministry of Mercantile Marine, Aegean and Island Policy 2, Administration 2, Work relations reviewer at Ministry of Work
Management Personnel	32	
Doctors	31	-Psychiatrist 4, Radiologist 3, Cardiologist 2, Gynaecologist 2, Pathologist 2, Children's doctor, Reproduction expert, Eye doctor, Cell specialist, Dentist, Dermatologist, Orthopaedic, Interns 2
Law	28	-Law employee 7, Public law employee 7, Legal advisor 5, Lawyer at office 4, Law firm employee 4, Judge
Psychology and Therapy	28	-Psychology 12, Speech therapy 5, Work therapy 5, Counselling, School psychology, Psychotherapist, Mental health advisor, Mental health worker, Work therapy employee
Accounting	27	-Accounting 9, Assistant Accountant 6, Accountant office employee 12
Sales	25	-Manager of sales, Adult education in sales, Sales supervisor
Engineers	16	-Civil engineers 3, Aircraft engineers 2, Automobile engineers 2, Mechanics 2, Aircraft mechanic, Automation

		engineer, Construction engineer
Paramedical professions	14	-Dental technician 2, Health 2, Health visitor 2, Physiotherapist 2, Assistant microbiologist, Radiology technician, Medical laboratory technologist, Medical visitors, Public hospital employee
Hotel and Tourism	13	-Hotel employee 4, Hotel manager, Customer service, Cleaner 2, Sightseeing, Tourism 4
Computers and Electronics	12	-Electronics 3, IT technician 2, Programmer 2, Application (software) Consultant, Software engineer, Designer
Military	12	-Navy private 2, Military school
Cashiers	10	
Social Work	10	
Police and Security	10	-Police officer 6, Security officer 4
Food and Cooking	10	-Cook 4, Chef 2, Buffet service 2, First cook, Food styling and photography
Electrician	9	-Company technician 6, Electrician 2, Technical support
Waiters	9	
Marketing and management	9	-Management 2, Market research, Marketing Strategy, Product marketing, Production manager, Social management, Quality control
Naval/Maritime	8	-Naval/seaman 2, Lieutenant, First Lieutenant, Port authority, Commercial officer, Merchant, Shipbuilding
Banking employees	6	
Total	**1032**	

Appendix 16: Frequencies and percentages for NEScale emotions items

Frequencies and percentages for NEScale emotions items

Happiness

		Frequency	Percent	Cumulative %
Valid	I feel all the time	175	8,0	8,0
	I feel very often	919	41,8	49,7
	I feel sometimes	831	37,8	87,5
	I feel rarely	235	10,7	98,1
	I do not feel	41	1,9	100,0
	Total	2201	100,0	

Enjoyment

		Frequency	Percent	Cumulative %
Valid	I feel all the time	161	7,3	7,3
	I feel very often	788	35,8	43,1
	I feel sometimes	904	41,1	84,2
	I feel rarely	309	14,0	98,2
	I do not feel	39	1,8	100,0
	Total	2201	100,0	

Sadness

		Frequency	Percent	Cumulative %
Valid	I feel all the time	78	3,5	3,5
	I feel very often	503	22,9	26,4
	I feel sometimes	1046	47,5	73,9
	I feel rarely	519	23,6	97,5
	I do not feel	55	2,5	100,0
	Total	2201	100,0	

Mourning sorrow

		Frequency	Percent	Cumulative %
Valid	I feel all the time	30	1,4	1,4
	I feel very often	112	5,1	6,5
	I feel sometimes	318	14,4	20,9
	I feel rarely	706	32,1	53,0
	I do not feel	1035	47,0	100,0
	Total	2201	100,0	

Panic

		Frequency	Percent	Cumulative %
Valid	I feel all the time	44	2,0	2,0
	I feel very often	175	8,0	10,0
	I feel sometimes	433	19,7	29,6
	I feel rarely	743	33,8	63,4
	I do not feel	806	36,6	100,0
	Total	2201	100,0	

Fear

		Frequency	Percent	Cumulative %
Valid	I feel all the time	50	2,3	2,3
	I feel very often	363	16,5	18,8
	I feel sometimes	795	36,1	54,9
	I feel rarely	700	31,8	86,7
	I do not feel	293	13,3	100,0
	Total	2201	100,0	

Anger

		Frequency	Percent	Cumulative %
Valid	I feel all the time	109	5,0	5,0
	I feel very often	606	27,5	32,5
	I feel sometimes	921	41,8	74,3
	I feel rarely	442	20,1	94,4
	I do not feel	123	5,6	100,0
	Total	2201	100,0	

Rage

		Frequency	Percent	Cumulative %
Valid	I feel all the time	89	4,0	4,0
	I feel very often	305	13,9	17,9
	I feel sometimes	529	24,0	41,9
	I feel rarely	772	35,1	77,0
	I do not feel	506	23,0	100,0
	Total	2201	100,0	

Love

		Frequency	Percent	Cumulative %
Valid	I feel all the time	857	38,9	38,9
	I feel very often	894	40,6	79,6
	I feel sometimes	325	14,8	94,3
	I feel rarely	106	4,8	99,1
	I do not feel	19	,9	100,0
	Total	2201	100,0	

Meanness

		Frequency	Percent	Cumulative %
Valid	I feel all the time	15	,7	,7
	I feel very often	88	4,0	4,7
	I feel sometimes	351	15,9	20,6
	I feel rarely	861	39,1	59,7
	I do not feel	886	40,3	100,0
	Total	2201	100,0	

Jealousy

		Frequency	Percent	Cumulative %
Valid	I feel all the time	10	,5	,5
	I feel very often	120	5,5	5,9
	I feel sometimes	429	19,5	25,4
	I feel rarely	902	41,0	66,4
	I do not feel	740	33,6	100,0

	Total	2201	100,0	

Irritation

		Frequency	Percent	Cumulative %
Valid	I feel all the time	137	6,2	6,2
	I feel very often	792	36,0	42,2
	I feel sometimes	928	42,2	84,4
	I feel rarely	286	13,0	97,4
	I do not feel	58	2,6	100,0
	Total	2201	100,0	

Nostalgia

		Frequency	Percent	Cumulative %
Valid	I feel all the time	229	10,4	10,4
	I feel very often	567	25,8	36,2
	I feel sometimes	766	34,8	71,0
	I feel rarely	472	21,4	92,4
	I do not feel	167	7,6	100,0
	Total	2201	100,0	

Agony

		Frequency	Percent	Cumulative %
Valid	I feel all the time	150	6,8	6,8
	I feel very often	550	25,0	31,8
	I feel sometimes	843	38,3	70,1
	I feel rarely	525	23,9	94,0
	I do not feel	133	6,0	100,0
	Total	2201	100,0	

Despair

		Frequency	Percent	Cumulative %
Valid	I feel all the time	71	3,2	3,2
	I feel very often	238	10,8	14,0
	I feel sometimes	513	23,3	37,3
	I feel rarely	838	38,1	75,4
	I do not feel	541	24,6	100,0

	Total	2201	100,0	

Guilt

		Frequency	Percent	Cumulative %
Valid	I feel all the time	38	1,7	1,7
	I feel very often	156	7,1	8,8
	I feel sometimes	494	22,4	31,3
	I feel rarely	897	40,8	72,0
	I do not feel	616	28,0	100,0
	Total	2201	100,0	

Tranquillity

		Frequency	Percent	Cumulative %
Valid	I feel all the time	109	5,0	5,0
	I feel very often	582	26,4	31,4
	I feel sometimes	919	41,8	73,1
	I feel rarely	479	21,8	94,9
	I do not feel	112	5,1	100,0
	Total	2201	100,0	

Apathy

		Frequency	Percent	Cumulative %
Valid	I feel all the time	37	1,7	1,7
	I feel very often	175	8,0	9,6
	I feel sometimes	410	18,6	28,3
	I feel rarely	686	31,2	59,4
	I do not feel	893	40,6	100,0
	Total	2201	100,0	

Boredom

		Frequency	Percent	Cumulative %
Valid	I feel all the time	62	2,8	2,8
	I feel very often	255	11,6	14,4
	I feel sometimes	577	26,2	40,6
	I feel rarely	712	32,3	73,0

	I do not feel	595	27,0	100,0
	Total	2201	100,0	

Sleepiness

		Frequency	Percent	Cumulative %
Valid	I feel all the time	86	3,9	3,9
	I feel very often	349	15,9	19,8
	I feel sometimes	576	26,2	45,9
	I feel rarely	753	34,2	80,1
	I do not feel	437	19,9	100,0
	Total	2201	100,0	

Stress

		Frequency	Percent	Cumulative %
Valid	I feel all the time	345	15,7	15,7
	I feel very often	838	38,1	53,7
	I feel sometimes	699	31,8	85,5
	I feel rarely	263	11,9	97,5
	I do not feel	56	2,5	100,0
	Total	2201	100,0	

Trust in me

		Frequency	Percent	Cumulative %
Valid	I feel all the time	403	18,3	18,3
	I feel very often	858	39,0	57,3
	I feel sometimes	683	31,0	88,3
	I feel rarely	206	9,4	97,7
	I do not feel	51	2,3	100,0
	Total	2201	100,0	

Determination

		Frequency	Percent	Cumulative %
Valid	I feel all the time	353	16,0	16,0

	I feel very often	828	37,6	53,7
	I feel sometimes	733	33,3	87,0
	I feel rarely	240	10,9	97,9
	I do not feel	47	2,1	100,0
	Total	2201	100,0	

Pride

		Frequency	Percent	Cumulative %
Valid	I feel all the time	445	20,2	20,2
	I feel very often	860	39,1	59,3
	I feel sometimes	586	26,6	85,9
	I feel rarely	245	11,1	97,0
	I do not feel	65	3,0	100,0
	Total	2201	100,0	

Life satisfaction

		Frequency	Percent	Cumulative %
Valid	I feel all the time	208	9,5	9,5
	I feel very often	690	31,3	40,8
	I feel sometimes	948	43,1	83,9
	I feel rarely	273	12,4	96,3
	I do not feel	82	3,7	100,0
	Total	2201	100,0	

Depression

		Frequency	Percent	Cumulative %
Valid	I feel all the time	54	2,5	2,5
	I feel very often	168	7,6	10,1
	I feel sometimes	394	17,9	28,0
	I feel rarely	729	33,1	61,1
	I do not feel	856	38,9	100,0
	Total	2201	100,0	

Uncertainty about the future

		Frequency	Percent	Cumulative %
Valid	I feel all the time	599	27,2	27,2
	I feel very often	701	31,8	59,1
	I feel sometimes	556	25,3	84,3
	I feel rarely	249	11,3	95,6
	I do not feel	96	4,4	100,0
	Total	2201	100,0	

Social injustice

		Frequency	Percent	Cumulative %
Valid	I feel all the time	590	26,8	26,8
	I feel very often	716	32,5	59,3
	I feel sometimes	474	21,5	80,9
	I feel rarely	269	12,2	93,1
	I do not feel	152	6,9	100,0
	Total	2201	100,0	

Loneliness

		Frequency	Percent	Cumulative %
Valid	I feel all the time	87	4,0	4,0
	I feel very often	230	10,4	14,4
	I feel sometimes	545	24,8	39,2
	I feel rarely	644	29,3	68,4
	I do not feel	695	31,6	100,0
	Total	2201	100,0	

Tiredness

		Frequency	Percent	Cumulative %
Valid	I feel all the time	294	13,4	13,4
	I feel very often	672	30,5	43,9
	I feel sometimes	828	37,6	81,5
	I feel rarely	289	13,1	94,6
	I do not feel	118	5,4	100,0
	Total	2201	100,0	

The vanity of life

		Frequency	Percent	Cumulative %
Valid	I feel all the time	62	2,8	2,8
	I feel very often	173	7,9	10,7
	I feel sometimes	405	18,4	29,1
	I feel rarely	571	25,9	55,0
	I do not feel	990	45,0	100,0
	Total	2201	100,0	

Appendix 17: Study 3 & Study 4 Test-retest Convergent Discriminant Information Sheet

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The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, f: +44 (0)115 846 6625
www.nottinaham.ac.uk

INFORMATION SHEET -PURPOSE /ΕΝΗΜΕΡΩΤΙΚΟ ΕΝΤΥΠΟ -ΣΚΟΠΟΣ

The research is designed to explore the experience of unemployed people; their feelings, thoughts, worries, and anxieties in relation to their unemployment and develop an emotional scale to assess their emotions in relation with long term unemployment.
Η έρευνα έχει σχεδιαστεί για να διερευνήσει την εμπειρία των ανέργων και να εξερευνήσει τα συναισθήματα, σκέψεις, ανησυχίες, και ανησυχίες τους σε σχέση με την ανεργία τους και να αναπτύξει μια συναισθηματική κλίμακα για την εκτίμηση των συναισθημάτων τους σε σχέση με τη μακροπρόθεσμη ανεργία.

To qualify for this study, I am looking for/ Οι προυποθέσεις για αυτή τη μελέτη, ψάχνω για

- **men and women aged 25 to 65 years**, / άνδρες και γυναίκες ηλικίας 25 έως 65
- men and women with *higher education (BA, MSC, or PhD) / άνδρες και γυναίκες με ανώτερη εκπαίδευση*
- *men and women in long term unemployment, more than 6 months / άνδρες και γυναίκες σε μακροχρόνια ανεργία, περισσότερο από 6 μήνες*
- *not self-employed (having their own business) / όχι αυοαπασχολούμενοι (να έχουν τη δική τους επιχείρηση)*
- **not with retirement pension** / όχι με σύνταξη

The research will verify that this scale is stable and reliable over time. Participants will spend about 2 minutes filling in the questionnaire in 2 weeks prior to completion of the original paper-based survey and then in 4, and 6- weeks. During the period of 6 weeks, 4 more Scales of measuring coping will be send to you via email to respond. All information that is collected for the research will be kept strictly confidential and will be kept securely by the University in accordance with ethical regulations for a period of 7 years. Your name or any other information that might identify on the scales will not be included.
Η έρευνα θα πιστοποιήσει ότι αυτή κλίμακα είναι σταθερή και αξιόπιστη στην πάροδο του χρόνου. Οι συμμετέχοντες θα διαθέσουν περίπου 2 λεπτά συμπληρώνοντας το ερωτηματολόγιο 2 εβδομάδες πριν την ολοκλήρωση της αρχικής έρευνας, και στη συνέχεια σε 8 εβδομάδες. Κατά τη διάρκεια των 2, 4 & 6 εβδομάδων, άλλες 4 κλίμακες μέτρησης προσαρμογής θα σας σταλούν μέσω e-mail για να απαντήσετε. Όλες οι πληροφορίες που συλλέγονται για την έρευνα τηρούνται αυστηρά εμπιστευτικά και φυλάσσονται με ασφάλεια από το Πανεπιστήμιο , σύμφωνα με τους ηθικούς κανονισμούς για περίοδο 7 ετών. Το όνομά σας ή οποιαδήποτε άλλη πληροφορία που μπορεί να σας ταυτοποιήσει στις κλίμακες δεν θα συμπεριληφθούν.

If you decide to take part, the researcher will contact you to arrange a convenient time to complete the measures and inform you about the 4 scales. Once the study is completed a summary of the findings will be available. The researcher will arrange for a copy to be sent to you if you wish/ Αν αποφασίσετε να πάρετε μέρος , η ερευνήτρια θα επικοινωνήσει μαζί σας για να κανονίσετε μια βολική ώρα για να ολοκληρωθούν οι μετρήσεις και να σας ενημερώσει για τις 4 κλίμακες. Μόλις ολοκληρωθεί η μελέτη μια σύνοψη των ευρημάτων θα είναι διαθέσιμα . Η ερευνήτρια θα φροντίσει για ένα αντίγραφο να σας σταλεί, αν επιθυμείτε .

Research Team/ Ερευνητική Ομάδα

Research Supervisor –Επόπτης Έρευνας

Professor Nigel Hunt

Associate Professor in Health Psychology

Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας

Faculty of Medicine

Τμήμα Ιατρικής

t: +44(0) 115 846 6484

e: nigel.hunt@nottingham.ac.uk

PhD Researcher / Ερευνήτρια

Mrs. Ioanna Karaoulani

Faculty of Medicine

Τμήμα Ιατρικής

t: +44(0) 115 846 6484 – +30 6936586609

e: lwxik2@nottingham.ac.uk

Appendix 18: Study 3 & Study 4 – Participant Information

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, f: +44 (0)115 846 6625
www.nottingham.ac.uk

PARTICIPANT INFORMATION
Ενημερωτικό Έντυπο

Division of Psychiatry & Applied Psychology
School of Medicine, Faculty of Medicine & Health Sciences
Τμήμα Ψυχιατρικής & Εφαρμοσμένης Ψυχολογίας
Ιατρική Σχολή, Τμήμα Ιατρικής & Επιστημών Υγείας

Project Title: Emotional reactions in the unemployed during economic recession in Greece: Construction of a self-rating emotional scale for use in unemployment (UNEM Scale)
Τίτλος Έρευνας: Συναισθηματικές αντιδράσεις στους άνεργους κατά τη διάρκεια της οικονομικής ύφεσης στην Ελλάδα: Κατασκευή μιας αυτο-αξιολόγησης συναισθηματικής κλίμακας για χρήση στην ανεργία (UNEScale)

Researcher: Ioanna Karaoulani e-mail: lwxik2@notttingham.ac.uk
Ερευνήτρια: Ιωάννα Καραουλάνη
Supervisor: Dr Nigel Hunt e-mail: lwznch@exmail.nottingham.ac.uk
Επόπτης: Δρ Nigel Hunt
Ethics Reference Number: … *[to be inserted following ethical review]*
Αριθμός Αναφοράς Ηθικής Δεοντολογίας:

This is an invitation to take part in the 3rd & 4th study of a larger project for developing an understanding of unemployed people's emotions. The purpose of this larger project is to develop an emotional scale to assess their emotions in relation with unemployment. Your participation is valuable, with your answers on self- reports scales we will estimate the degree to which UNEM Scale measures what it claims.
Αυτή είναι μια πρόσκληση για να συμμετέχετε στη 3η & 4η μελέτη μιας μεγαλύτερης έρευνας που θα μας βοηθήσει στη κατανόηση των συναισθημάτων των ανέργων. Ο σκοπός αυτής της μεγαλύτερης έρευνας είναι να φτιάξει μια συναισθηματική κλίμακα για να εκτιμήσει τα συναισθήματα τους σε σχέση με την ανεργία. Η συμμετοχή σας είναι πολύτιμη, με τις απαντήσεις σας στις κλίμακες θα κατανοήσουμε τον βαθμό που η κλίμακα UNEM Scale μετρά ότι ισχυρίζεται.

This information is designed to tell you what it will involve. Your participation is voluntary, and you may change your mind about being involved, or decline to answer a particular question.

You are free to withdraw at any point before or during the study. Withdrawal does not require a reason. Once you have completed and submitted the questionnaires it is not possible to withdraw the data because we won't know who you are.

Αυτό το έντυπο πληροφόρησης έχει σχεδιαστεί για να σας πω τι θα περιλαμβάνει. Η συμμετοχή σας είναι εθελοντική, και μπορείτε να αλλάξετε γνώμη για το αν επιθυμείτε να συμμετάσχετε ή να αρνηθείτε να απαντήσετε σε μια συγκεκριμένη ερώτηση, ανά πάσα στιγμή, και χωρίς καμία αιτιολόγηση για αυτό. Είστε ελεύθεροι να αποσυρθείτε οποιαδήποτε στιγμή. Η απόσυρση σας δεν απαιτεί κάποιο λόγο. Μόλις συμπληρώσετε και υποβάλετε το ερωτηματολόγια, δεν είναι δυνατό να αποσύρετε τα δεδομένα επειδή δεν θα γνωρίζουμε ποιοι είστε.

What is the project about?

Περι τίνος πρόκειται αυτή η μελέτη;

The specific studies (3rd and 4th) are designed to discover whether or not unemployment scale (UNEM Scale) measures what it is purported to *measure***.**

Οι συγκεκριμένες έρευνες έχουν σχεδιασθεί για να ανακαλύψουμε εάν ή όχι η κλίμακα ανεργίας (UNEM Scale) μετράει αυτό που ισχυρίζεται ότι μετράει.

In particular, the three aims are: (a) the research will test retest procedure to help verify that unemployment scale (UNEM scale) is stable over time that means that your scores on UNEM scale remain same or similar in 2, 4, 6, and 8 weeks after your first test date, (b) to provide evidence for convergence between similar constructs; that means that if you have more positive than negative emotions on UNEM scale scores observe to be related with the positive emotions scales Subjective Happiness Scale (SHS) and Satisfaction with Life Scale (SWLS) (c) to provide evidence for discrimination between dissimilar constructs; that if you have more positive than negative emotions on UNEM scale scores observe not be related to Brief Cope and *Depression, Anxiety and Stress Scale* **(DASS-42).**

Πιο συγκεκριμένα οι τρείς σκοποί είναι: α) η έρευνα να κάνει δοκιμή επανεξέτασης για να δει αν η κλίμακα ανεργίας (UNEM Scale) είναι σταθερή στο πέρασμα του χρόνου που αυτό σημαίνει ότι οι απαντήσεις σας στην UNEM κλίμακα παραμένουν ίδιες ή παρόμοιες σε 2, 4, 6, 8 εβδομάδες μετά τη πρώτη σας απάντηση, (β) να δώσει αποδεικτικά στοιχεία για τη σύγκλιση μεταξύ παρόμοιων δομών; αυτό σημαίνει ότι οι θετικές σας απαντήσεις στη κλίμακα UNEM θα ταιριάζουν με τις θετικές κλίμακες Υποκειμενική Κλίμακα Ευτυχίας (SHS) και Κλίμακα Ικανοποίησης Ζωής (SWLS), (γ) να δώσει αποδειχτικά στοιχεία για απόκλιση μεταξύ ανόμοιων δομών; αυτό σημαίνει ότι οι θετικές σας απαντήσεις στη κλίμακα UNEM δεν θα ταιριάζουν με το Ερωτηματολόγιο Προσανατολισμών στην Αντιμετώπιση Προβλημάτων (Brief Cope) και το Ελληνικό Ερωτηματολόγιο Κατάθλιψης, Άγχους και Στρες (DASS-42).

Who is being asked to take part, and why?

You are invited to participate in study 3 and study 4 because you have the following characteristics

Έχετε προσκληθεί να λάβετε μέρος στη μελέτη 3 και μελέτη 4 επειδή έχετε τα ακόλουθα χαρακτηριστικά

- **men and women aged 25 to 65 years** / άνδρες και γυναίκες ηλικίας 25 έως 65
- **men and women with** *higher education (BA, MSC, or PhD)/άνδρες και γυναίκες με ανώτερη εκπαίδευση*
- *men and women in unemployment, 6 months or more (≥6 months)/ άνδρες και γυναίκες σε ανεργία, 6 μήνες ή περισσότερο (≥6 μήνες)*
- *not self-employed (having their own business)/ όχι αυτοαπασχολούμενοι (να έχουν τη δική τους επιχείρηση)*
- **not with retirement pension**/όχι στη σύνταξη.

What will I be asked to do?
Τι θα μου ζητηθεί να κάνω;

Participants will be asked if they will be interested to participate in the electronic test retest, convergent and discriminant phase of the unemployment scale (UNEM) through Bristol Online Surveys services which will last for a period of 2, 4, & 6 weeks; a self-report scale will be sent every second (2nd) week. If you agree to take part in this study, you will be contacted by the researcher Mrs Ioanna Karaoulani via email and you will be asked to fill in the following four (4) self-reports scales: (1) Subjective Happiness Scale (SHS-4 items), (2) Brief Cope- 28 items, (3) Satisfaction with Life Scale (SWLS- 5 items) and (4) Depression, Anxiety and Stress Scale (DASS-42 items). Each self- report scale is less than 5 min duration.
Οι συμμετέχοντες θα ερωτηθούν αν ενδιαφέρονται να συμμετάσχουν στην ηλεκτρονική φάση της συγκλίνουσα-διαφορετική φάση της κλίμακας ανεργίας (UNEM) μέσω Bristol Online Surveys που θα διαρκέσει 2, 4, & 6 εβδομάδες; μια κλίμακα θα τους αποστέλεται κάθε δεύτερη (2η) εβδομάδα. Εάν συμφωνήσεις να συμμετέχεις σε αυτή τη μελέτη, θα έρθεις σε επικοινωνία με την ερευνήτρια κα Ιωάννα Καραουλάνη μέσω ηλεκτρονικού ταχυδρομείου-email και θα σου ζητηθεί να συμπληρώσεις τις ακόλουθες τέσσερις (4) κλίμακες: (1) Υποκειμενική Κλίμακα Ευτυχίας (SHS- 4 στοιχεία), (2) Ερωτηματολόγιο Προσανατολισμών στην Αντιμετώπιση Προβλημάτων (Brief Cope- 28 στοιχεία), (3) Κλίμακα Ικανοποίησης Ζωής (SWLS- 5 στοιχεία) και (4) Ερωτηματολόγιο Κατάθλιψης, Άγχους και Στρες (DASS-42 στοιχεία). Η κάθε κλίμακα διαρκεί λιγότερο από 5 λεπτά.

Your participation is valuable and we appreciate your time and your effort in study 3 and study 4. Even if you participation is voluntary and not monetary, it is in our high priorities to make you feel safe and minimize any possible discomfort during or after your participation. For that reason, during and at the end of the test-retest convergent and discriminant phase of this research a debriefing session will follow to ensure how you feel after the 2,4, & 6 time points fulfilling the questionnaires. Moreover, you may contact anytime the supervisor of the study Dr Nigel Hunt at the telephone number (+44) 0115 8415315 if you would like to discuss questions that might emerge during the 2 weeks, 4 weeks, 6 weeks and 8 weeks of your participation. This research seeks to reduce all foreseeable threats to the participants' psychological well-being, health, values or dignity, but for minimizing any potential risk, two psychiatrists/psychotherapists (1) Dr Ioannis Kakaflikas (phone number: (+30) 2107018739) and Dr Dimitrios Stogioglou (phone number: (+30) 2106754815) will be available to contact (*in-person* and a *phone* conversation) in case you experience stress or discomfort during or after your participation, with no charge for the visits.

Η συμμετοχή σας είναι πολύτιμη και εκτιμούμε το χρόνο σας και την προσπάθειά σας στη μελέτη 3 και τη μελέτη 4. Ακόμη και αν η συμμετοχή σας είναι εθελοντική και όχι με πληρωμή, είναι στις υψηλές μας προτεραιότητες να σας κάνουμε να νιώθετε ασφαλείς και να ελαχιστοποιήσουμε τυχόν δυσφορία κατά τη διάρκεια ή μετά τη συμμετοχή σας. Για το λόγο αυτό, κατά τη διάρκεια και στο τέλος της δοκιμαστικής επανεξέτασης της φάσης σύγκλισης και διάκρισης αυτής της έρευνας, θα ακολουθήσει μια συζήτηση για να δούμε πως αισθάνεστε μετά τα 2,4, & 6 χρονικά σημεία που συμπληρώνοντας τα ερωτηματολόγια. Επιπλέον, μπορείτε να επικοινωνήσετε οποιαδήποτε στιγμή με τον επιβλέποντα της μελέτης Dr Nigel Hunt στον αριθμό τηλεφώνου(+44) 0115 8415315 αν θέλετε να συζητήσετε ερωτήσεις που θα μπορούσαν να προκύψουν κατά τη διάρκεια των 2 εβδομάδων, 4 εβδομάδων, 6 εβδομάδων και 8 εβδομάδων από τη συμμετοχή σας. Η έρευνα αυτή αποσκοπεί στον περιορισμό όλων των προβλέψιμων απειλών για την ψυχολογική ευημερία, την υγεία, τις αξίες ή την αξιοπρέπεια των συμμετεχόντων, αλλά για την ελαχιστοποίηση οποιουδήποτε πιθανού κινδύνου, δύο ψυχίατροι / ψυχοθεραπευτές (1) Δρ Ιωάννης Κακαφλίκας (αριθμός τηλεφώνου: (+30) 2107018739 και Δρ. Δημήτριος Στογιόγλου (αριθμός τηλεφώνου (+30) 2106754815 θα είναι διαθέσιμοι για να επικοινωνήσετε (προσωπικά και με τηλεφωνική συνομιλία) σε περίπτωση που αισθανθείτε άγχος ή δυσφορία κατά τη διάρκεια ή μετά τη συμμετοχή σας, χωρίς χρέωση για τις επισκέψεις.

Will the research be of any personal benefit to me?
Θα είναι αυτή η έρευνα προς προσωπικό μου όφελος;

The research may not be of any immediate personal benefit to you but it will help us to create a scale to better understand unemployed emotions in relation to unemployment. It is essential to mention that there are no scales that estimate the emotional state of unemployed in relation to their unemployment. As a result there are no equivalent psychological treatments to help improve the quality of life of people in unemployment and prevent possible psychological problems to unemployed.
Η μελέτη αυτή δεν θα έχει ένα άμεσο προσωπικό όφελος για εσάς αλλά θα μας βοηθήσει να δημιουργήσουμε μια κλίμακα για να κατανοήσουμε περισσότερο τα συναισθήματα των ανέργων σχετικά με την ανεργία. Είναι σημαντικό να πούμε ότι δεν υπάρχουν κλίμακες για να εκτιμήσουν τη συναισθηματική κατάσταση των ανέργων σχετικά με την ανεργία τους. Ως εκ τούτου δεν υπάρχουν οι αντίστοιχες ψυχολογικές θεραπείες για να συμβάλουν στην βελτίωση της ποιότητας ζωής των ανθρώπων στην ανεργία και την πρόληψη των πιθανών ψυχολογικών προβλημάτων στους ανέργους.

What will happen to the information I provide?
Τι θα συμβεί με τις πληροφορίες που θα δώσω;

All information which is collected about you during the studies will be kept on a password protected database through Bristol online Surveys services and is strictly confidential. Your name or any other information that might identify you in the questionnaires will not be included. This research uses pseudonymisation (key coding) and conceals identities of participants in all outcomes resulting from the research and we reassure that you cannot be indirectly identified via location or demographic data
Όλες οι πληροφορίες που συλλέγονται για εσάς κατά τη διάρκεια των μελετών θα κρατηθούν σε μια ηλεκτρονική βάση δεδομένων μέσω Bristol online Surveys με κωδικό πρόσβασης και είναι απολύτως εμπιστευτικό. Το όνομά σας ή οποιαδήποτε άλλη πληροφορία που μπορεί να σας ταυτοποιήσει στα ερωτηματολόγια δεν θα συμπεριληφθούν. Αυτή η έρευνα χρησιμοποιεί ψευδώνυμα (κωδικοποίηση κλειδιού) και αποκρύπτει τις ταυτότητες των συμμετεχόντων σε όλα τα αποτελέσματα που προκύπτουν από την έρευνα και σας επιβεβαιώνουμε ότι δεν μπορείτε να ταυτοποιηθείτε έμμεσα μέσω γεωγραφικής τοποθεσίας ή δημογραφικών στοιχείων.

Your personal data (email address) will be retained for 12 months after the study concludes to allow us to inform you of the findings of the study. All other data (research data) will be kept securely for a period of seven years, during which all necessary precautions will be taken to maintain your confidentiality by all those involved in the study, with only members of the research team having access to your personal data. After this time, your data will be disposed of securely. Although the information we collect about you is confidential, should you disclose anything to us which we feel puts you or anyone else at risk, we may deem it necessary to report this information to the appropriate body.
Τα προσωπικά σας δεδομένα (διεύθυνση ηλεκτρονικού ταχυδρομείου) θα παραμείνουν για 12 μήνες μετά την ολοκλήρωση της μελέτης, ώστε να μας επιτρέψετε να σας ενημερώσουμε για τα ευρήματα της έρευνας. Όλα τα άλλα δεδομένα (ερευνητικά δεδομένα) θα διατηρούνται με ασφάλεια για περίοδο επτά ετών, κατά τη διάρκεια της οποίας θα ληφθούν όλες οι απαραίτητες προφυλάξεις για να διατηρηθεί η εμπιστευτικότητα σας από όλους τους συμμετέχοντες στη μελέτη, ενώ μόνο μέλη της ερευνητικής ομάδας να έχουν πρόσβαση στα προσωπικά σας δεδομένα. Μετά από αυτό το διάστημα, τα δεδομένα σας θα διαγραφούν με ασφάλεια. Παρόλο που οι πληροφορίες που συλλέγουμε σχετικά με εσάς είναι εμπιστευτικές, θα πρέπει να μας γνωστοποιήσετε οτιδήποτε πιστεύετε ότι θέτει εσάς ή οποιοδήποτε άλλον σε κίνδυνο, ενδέχεται να θεωρήσουμε απαραίτητο να αναφέρουμε αυτές τις πληροφορίες στον αρμόδιο φορέα.

Other authorised persons may also review the data in order to verify that the study is being carried out correctly. All such personnel will maintain a duty of confidentiality to you as a research participant, and will do their best to meet this duty. All information collected about you during this research project will be kept strictly confidential.
Άλλα εξουσιοδοτημένα άτομα μπορούν επίσης να δούνε τα δεδομένα προκειμένου να επαληθεύσουν ότι η μελέτη διεξάγεται σωστά. Όλο αυτό το προσωπικό θα διατηρήσει την υποχρέωση εμπιστευτικότητας σε εσάς ως συμμετέχοντα στην έρευνα και θα καταβάλει κάθε προσπάθεια για να

ανταποκριθεί σε αυτό το καθήκον. Όλες οι πληροφορίες που συλλέγονται για εσάς κατά τη διάρκεια αυτής της έρευνας θα διατηρηθούν αυστηρά εμπιστευτικές.
.

What will you do with the data?
Τι θα κάνεις με τα δεδομένα;

These findings from this study will be written up for Mrs Ioanna's Karaoulani PhD degree in Clinical Psychology. The results of this study may also be published in academic journals or presented at academic conferences, details or a copy of which can be provided to you upon request. Remember that you will not be identified in any report or publication.
Τα ευρήματα αυτής της μελέτης θα συνταχθούν για το Διδακτορικό πτυχίο της κας Ιωάννας Καραουλάνη στην κλινική ψυχολογία. Τα αποτελέσματα αυτής της μελέτης μπορούν επίσης να δημοσιευθούν σε ακαδημαϊκά περιοδικά ή να παρουσιαστούν σε ακαδημαϊκά συνέδρια, λεπτομέρειες ή αντίγραφο των οποίων μπορεί να σας δοθει κατόπιν αιτήματος. Θυμηθείτε ότι δεν θα ταυτοποιηθείτε σε καμία αναφορά ή δημοσίευση.

The future use of UNEScale is to help to plan an intervention to strengthen the characteristics of the social environment that can be considered coping resources that facilitate effective coping behaviour in hardship and decrease the emotional distress associated with unemployment.
Η μελλοντική χρήση της κλίμακας ανεργίας UNEScale είναι να βοηθήσει στο σχεδιασμό μιας παρέμβασης για την ενίσχυση των χαρακτηριστικών του κοινωνικού περιβάλλοντος που διευκολύνουν την προσαρμογή σε δυσκολίες και μειώνουν την συναισθηματική δυσφορία που συνδέεται με την ανεργία.

At the end of the project, all raw data will be kept securely by the University under the terms of the Data Protection Act. The data will not be kept elsewhere.
Στο τέλος της έρευνας, όλα τα δεδομένα θα τηρούνται με ασφάλεια από το Πανεπιστήμιο σύμφωνα με τους όρους του νόμου περί προστασίας δεδομένων. Τα δεδομένα δεν θα φυλάσσονται κάπου αλλού.

If you have any questions or concerns, please don't hesitate to ask. We can be contacted before and after your participation either using the email addresses given above or by writing to Dr Nigel Hunt, Associate Professor, Faculty of Medicine & Health Sciences, Room B19, International House, Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, United Kingdom.
Εάν έχετε οποιεσδήποτε ερωτήσεις ή ανησυχίες, παρακαλώ μη διστάσετε να ρωτήσετε. Μπορούμε να επικοινωνήσουμε μαζί σας πριν και μετά τη συμμετοχή σας, είτε χρησιμοποιώντας τις διευθύνσεις ηλεκτρονικού ταχυδρομείου που δόθηκαν παραπάνω είτε γράφοντας στον Δρ Nigel Hunt, Αναπληρωτή Καθηγητή, Ιατρική Σχολή, Γραφείο B19 International House, Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, Ηνωμένο Βασίλειο.

THANK YOU FOR YOUR PARTICIPATION
ΕΥΧΑΡΙΣΤΟΥΜΕ ΓΙΑ ΤΗΝ ΣΥΜΜΕΤΟΧΗ ΣΑΣ

If you have any queries or complaints about this study, please contact the student's supervisor in the first instance. If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

Αν έχετε απορίες ή παράπονα σχετικά με αυτή την έρευνα, παρακαλώ να επικοινωνήσετε με τον επόπτη της έρευνας, σε πρώτη φάση. Εάν παραμείνετε δυσαρεστημένος/η. και επιθυμείτε να παραπονεθείτε και επισήμως, τότε μπορείτε να απευθυνθείτε στον Υπεύθυνο στη Διεύθυνση της

Επιτροπής FMHS Research Ethics Committee, Πανεπιστήμιο Nottingham, Τμήμα PVC Γραφείο, Όροφος B, Ιατρική Σχολή, Queen's Medical Centre Campus, Νοσοκομεία Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

Internet Studies (via email)
Διαδικτυακές 'Ερευνες (μέσω ηλεκτρονικού ταχυδρομείου)

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this project (study 3 and study 4) will remain anonymous. We will minimize any risks by keeping all information about you during the studies on a password protected database through Bristol online Surveys services and researcher's Mrs Ioanna Karaoulani university email (lwxik2@nottingham.ac.uk) and is strictly confidential. Your name or any other information that might identify you on Bristol online Surveys services will be kept with pseudonymisation (key coding) that conceals identities of participants in all outcomes resulting from the research and we reassure that you cannot be indirectly identified via location or demographic data
Πιστεύουμε ότι δεν υπάρχουν γνωστοί κίνδυνοι που σχετίζονται με αυτή τη μελέτη έρευνας. Ωστόσο, όπως και με οποιαδήποτε σχετική δραστηριότητα στο διαδίκτυο, ο κίνδυνος παραβίασης είναι πάντα εφικτός. Θα κάνουμε ό, τι είναι δυνατόν για να εξασφαλίσουμε ότι οι απαντήσεις σας στη μελέτη αυτή θα παραμείνουν ανώνυμες.
Θα ελαχιστοποιήσουμε τους κινδύνους κρατώντας όλες τις πληροφορίες σχετικά με εσάς κατά τη διάρκεια αυτής της μελέτης (μελέτη 3 και μελέτη 4) σε μια βάση δεδομένων που προστατεύεται με κωδικό πρόσβασης μέσω των υπηρεσιών ηλεκτρονικών ερευνών του Bristol και του πανεπιστημιακού ηλεκτρονικού ταχυδρομείου της κυρίας Ioanna Karaoulani (lwxik2@nottingham.ac.uk) και είναι απόλυτα εμπιστευτική. Το όνομά σας ή οποιεσδήποτε άλλες πληροφορίες που θα μπορούσαν να σας αναγνωρίσουν στις υπηρεσίες Surveys online του Bristol θα διατηρηθούν με ψευδονομία (κωδικοποίηση κλειδιών) που αποκρύπτει την ταυτότητα των συμμετεχόντων σε όλα τα αποτελέσματα που προκύπτουν από την έρευνα και διαβεβαιώνουμε ότι δεν μπορείτε να ταυτοποιηθείτε έμμεσα μέσω γεωγραφικής τοποθεσίας ή δημογραφικών στοιχείων.

At the end of the project, all raw data will be kept securely by the University under the terms of the Data Protection Act. The data will not be kept elsewhere. Your personal data (email address) will be retained for 12 months after the study concludes to allow us to inform you of the findings of the study. All other data (research data) will be kept securely for a period of 7 years, during which all necessary precautions will be taken to maintain your confidentiality by all those involved in the study, with only members of the research team having access to your personal data. After this time, your data will be deleted from Bristol online Surveys services and researcher's university email will be deactivated securely after the completion of her PhD degree.
Στο τέλος της έρευνας, όλα τα δεδομένα θα τηρούνται με ασφάλεια από το Πανεπιστήμιο σύμφωνα με τους όρους του νόμου περί προστασίας δεδομένων. Τα δεδομένα δεν θα φυλάσσονται κάπου αλλού. Τα προσωπικά σας δεδομένα (διεύθυνση ηλεκτρονικού ταχυδρομείου) θα παραμείνουν για 12 μήνες μετά την ολοκλήρωση της μελέτης, ώστε να μας επιτρέψετε να σας ενημερώσουμε για τα ευρήματα της έρευνας. Όλα τα άλλα δεδομένα (ερευνητικά δεδομένα) θα διατηρούνται με ασφάλεια για περίοδο 7 ετών, κατά τη διάρκεια της οποίας θα ληφθούν όλες οι απαραίτητες προφυλάξεις για να διατηρηθεί η εμπιστευτικότητα σας από όλους τους συμμετέχοντες στη μελέτη, ενώ μόνο μέλη της ερευνητικής ομάδας να έχουν πρόσβαση στα προσωπικά σας δεδομένα. Μετά από αυτό το διάστημα, τα δεδομένα σας θα διαγραφούν με ασφάλεια Bristol online Surveys services και το ηλεκτρονικό ταχυδρομείο της ερευνήτριας κας Ιωάννα Καραουλάνη δεν θα είναι σε ισχύ μετά την ολοκλήρωση του διδακτορικού της πτυχίου
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Appendix 19: Study 3 & Study 4 Participant Consent

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, f: +44 (0)115 846 6625
www.nottingham.ac.uk

PARTICIPANT CONSENT

Division of Psychiatry & Applied Psychology
School of Medicine, Faculty of Medicine & Health Sciences

Project Title: Emotional reactions in the unemployed during economic recession in Greece: Scale construction of unemployment (UNEM) psychometric scale**.**

Researcher: Ioanna Karaoulani [university e-mail] lwxik2@nottingham.ac.uk

Supervisor Dr Nigel Hunt [university e-mail] lwznch@exmail.nottingham.ac.uk

Ethics Reference Number: …. *[to be inserted following ethical review]*

CONSENT FORM / ΈΝΤΥΠΟ ΣΥΓΚΑΤΑΘΕΣΗΣ

Thank you for agreeing to participate in this study.

Your participation is voluntary, and you may change your mind about being involved, or decline to answer a particular question at any time, and without giving a reason. You are free to withdraw at any point before or during the study. In case of anonymous questionnaire, once you have completed the study and submitted your questionnaire, the data cannot be withdrawn.
Η συμμετοχή σας είναι εθελοντική, και μπορείτε να αλλάξετε γνώμη για το αν επιθυμείτε να συμμετάσχετε ή να αρνηθείτε να απαντήσετε σε μια συγκεκριμένη ερώτηση, ανά πάσα στιγμή, και χωρίς καμία αιτιολόγηση για αυτό. Είστε ελεύθεροι να αποσυρθείτε οποιαδήποτε στιγμή. Σε περίπτωση ανώνυμου ερωτηματολογίου, αφού έχετε ολοκληρώσει τη μελέτη και υποβάλλει το ερωτηματολόγιο, τα δεδομένα δεν μπορούν να αποσυρθούν.
Yes/ Ναι _____ **No**/ Όχι _____

I understand that the researcher may wish to publish results from the research. If this does occur I understand that my identity will be concealed/ Καταλαβαίνω ότι η ερευνήτρια μπορεί να επιθυμεί να δημοσιεύσει τα αποτελέσματα από την έρευνα. Εάν αυτό συμβεί καταλαβαίνω ότι η ταυτότητά μου θα είναι κρυφή.

Yes/ Ναι _____ **No**/ Όχι _____

I agree to fill in the 4 self -reports scales during the duration of 2, 4, 6 weeks.
Συμφωνώ να συμπληρώσω τις 4 κλίμακες στη διάρκεια των 2, 4, 6 εβδομάδες.

Yes/ Ναι _____ **No**/ Όχι _____

Information you need to know:/ Πληροφορίες που πρέπει να ξέρετε

- **Your name will not be included on any documents**./ Το όνομα σας δεν θα συμπεριληφθεί σε κανένα κείμενο
- **You cannot be identified from any of (the information collected) this information**./ Δεν μπορείτε να ταυτοποιηθείτε από καμία από τις πληροφορίες (πού έχουν συλλεχθεί)
- **This informed consent (you agree to) will not be kept with any of the other documents completed with this project**/ Αυτό το έντυπο συγκατάθεσης (που συμφωνείτε) δεν θα κρατηθεί με κανένα άλλο έντυπο που έχει συμπληρωθεί με αυτή την έρευνα.
- **Your participation in this research is entirely voluntary. You have the right to withdraw at any point of the study, for any reason, and without any consequence.** / Η συμμετοχή σας σε αυτή την έρευνα είναι απολύτως εθελοντική. Έχετε το δικαίωμα να αποσυρθείτε σε οποιοδήποτε σημείο της μελέτης, για οποιοδήποτε λόγο, και χωρίς καμία συνέπεια.
- **If any of your replies cause you emotional stress, you may contact (free of charge) psychiatrists Dr Kakaflikas Ioannis (tel: 2107018739) and Dr Stogioglou Dimitrios (tel: 210 6754815) to discuss this issue** / Σε περίπτωση που κάποιες από τις απαντήσεις σας, σας προκαλέσουν συναισθηματική αναστάτωση μπορείτε να επικοινωνήσετε (δωρεάν) με τους ψυχιάτρους Δρ Κακαφλίκας Ιωάννης (τηλ: 2107018739) και Δρ Στογιόγλου Δημήτριος (τηλ: 210 6754815) για να συζητήσετε το θέμα αυτό.

This research has been reviewed and approved by The University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies. If you have questions or concerns regarding this research please contact the Researcher or Research Advisor. If you have any questions, concerns, or reports regarding your rights as a research participant, please contact the University of Nottingham, Medical School, UK./ Αυτή η μελέτη και η έρευνα UNEM Scale Κλίμακα έχει ελεγχθεί και εγκριθεί από το Πανεπιστήμιο του Nottingham, Ηνωμένο Βασίλειο. Το Πανεπιστήμιο έχει αποφασίσει ότι η έρευνα αυτή πληρεί τις ηθικές υποχρεώσεις που απαιτούνται από τις πολιτικές του Πανεπιστημίου. Αν έχετε απορίες ή ανησυχίες σχετικά με την έρευνα αυτή, παρακαλούμε επικοινωνήστε με την Ερευνήτρια ή Σύμβουλο Έρευνας. Αν έχετε οποιεσδήποτε απορίες, ανησυχίες, ή τις αναφορές σχετικά με τα δικαιώματά σας ως συμμετέχων στην έρευνα, παρακαλείστε να επικοινωνήσετε με το Πανεπιστήμιο του Nottingham, Ιατρική Σχολή, Ηνωμένο Βασίλειο.

Appendix 20: Study 3 & Study 4 - Demographic Data

Demographic Data/ Δημογραφικά

Name & Last Name/ Ονοματεπώνυμο:

Age/ Ηλικία: **Male**/ Άνδρας □ **Female**/ Γυναίκα □

Current Employment Status/ Τωρινή Κατάσταση Απασχόλησης

Employed/ Εργαζόμενοι □ **Employment Duration**/ Διάστημα Εργασίας:

Type of Employment/ Είδος Εργασίας:

Unemployed/ Άνεργοι □ **Unemployment Duration**/ Διάστημα Ανεργίας:

Education/ Εκπαίδευση

BA/BSc/ Βασικό πτυχίο □ **Field of Subject**/ Τομέας Σπουδών:
MA/MSc/ Μάστερ □
PhD/ Διδακτορικό □
Postdoc/Μεταδιδακτορικό □

Family Status/Οικογενειακή Κατάσταση

Single/ Ελεύθερος -η	**Yes**/ Ναι □	**No**/ Όχι □
Married/ Παντρεμένος -η **Marriage Period**/ Διάστημα Γάμου	**Yes**/ Ναι □	**No**/ Όχι □
Divorced/ Διαζευγμένος-η **Divorce Period**/Διάστημα Διαζυγίου	**Yes**/ Ναι □	**No**/ Όχι □
Widowed/ Χηρευάμενος-η **Mourning Period**/ Διάστημα Πένθους	**Yes**/ Ναι □	**No**/ Όχι □

Με παιδιά (with children) **Yes**/ Ναι □ **No**/ Όχι □

How many/ Πόσα: **Age & Gender**/ Ηλικία & Φύλο:

Do you have any long-term illness, health problems or disability that, with or without the use of aids or medication, limits your daily activities? / Έχετε κάποια μακροχρόνια ασθένεια, προβλήματα υγείας ή αναπηρίας που, με ή χωρίς τη χρήση βοηθημάτων ή φαρμακευτική αγωγή, περιορίζει τις καθημερινές δραστηριότητές σας;

Yes/ **Ναι** □ **No**/ Όχι □

If yes, please describe/ Αν ναι, παρακαλώ περιγράψτε**:**

Appendix 21 - UNEScale - 24 items Likert Scale

Πείτε μας πως Αισθάνεστε, χρησιμοποιώντας την παρακάτω κλίμακα (Tell us How you Feel, using the following scale)

1 **Δεν αισθάνομαι** **I do not feel**	2 **Σπάνια** **I feel rarely**	3 **Μερικές φορές** **I feel sometimes**	4 **Πολύ συχνά** **I feel very often**	5 **Όλη την ώρα** **I feel all the time**

1. Ευτυχία (happiness)	1□	2□	3□	4□	5□
2. Απόλαυση (enjoyment)	1□	2□	3□	4□	5□
3. Στεναχώρια (sadness)	1□	2□	3□	4□	5□
4. Θλίψη πένθους (mourning sorrow)	1□	2□	3□	4□	5□
5. Φόβος (fear)	1□	2□	3□	4□	5□
6. Θυμός (anger)	1□	2□	3□	4□	5□
7. Αγάπη (love)	1□	2□	3□	4□	5□
8. Κακία (meaniness)	1□	2□	3□	4□	5□
9. Ζήλεια (jealousy)	1□	2□	3□	4□	5□
10. Νοσταλγία (nostalgia)	1□	2□	3□	4□	5□
11. Αγωνία (agony)	1□	2□	3□	4□	5□
12. Τύψεις (guilt)	1□	2□	3□	4□	5□
13. Ηρεμία (tranquillity)	1□	2□	3□	4□	5□
14. Απάθεια (apathy)	1□	2□	3□	4□	5□
15. Ανία (boredom)	1□	2□	3□	4□	5□
16. Υπνηλία (sleepiness)	1□	2□	3□	4□	5□
17. Άγχος (stress)	1□	2□	3□	4□	5□
18. Εμπιστοσύνη σε μένα (trust in me)	1□	2□	3□	4□	5□
19. Αποφασιστικότητα (determination)	1□	2□	3□	4□	5□
20. Υπερηφάνεια (pride)	1□	2□	3□	4□	5□
21. Ικανοποίηση από τη Ζωή σου (life satisfaction	1□	2□	3□	4□	5□
22. Αβεβαιότητα για το μέλλον (uncertainty about the future)	1□	2□	3□	4□	5□
23. Κοινωνική Αδικία (social injustice)	1□	2□	3□	4□	5□
24. Κούραση(tiredness)	1□	2□	3□	4□	5□

Appendix 22: Study 3 & Study 4 – Brief Cope

BRIEF COPE These items deal with ways you've been coping with the stress in your life. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

Οι επόμενες ερωτήσεις έχουν να κάνουν με τον τρόπο που αντιμετωπίζετε το άγχος (στρες) στη ζωή σας. Απαντήστε με βάση το κατά πόσο συχνά κάνετε αυτό που αναφέρεται στη δήλωση, ΟΧΙ κατά πόσο ο τρόπος αυτός δουλεύει για σας ή όχι. Για κάθε απάντηση σας βάλτε σε κύκλο τον αριθμό που αντιστοιχεί.

1 = I haven't been doing this at all / Δεν το κάνω καθόλου
2 = I've been doing this a little bit / Το κάνω λίγο
3 = I've been doing this a medium amount / Το κάνω σε μέτριο βαθμό
4 = I've been doing this a lot / Το κάνω πολύ

	English version	Greek Version	At all Καθόλου	A little bit Λίγο	A medium amount Μέτρια	A lot Πολύ
1	I've been turning to work or other activities to take my mind off things.	Στρέφομαι προς τη δουλειά ή άλλες ασχολίες για να παίρνω το μυαλό μου από τα προβλήματα	1	2	3	4
2	I've been concentrating my efforts on doing something about the situation I'm in.	Επικεντρώνομαι στο να κάνω κάτι για να αλλάξω την κατάσταση στην οποία βρίσκομαι	1	2	3	4
3	I've been saying to myself "this isn't real."	Λέω στον εαυτό μου «αυτό δεν μπορεί να συμβαίνει»	1	2	3	4
4	I've been using alcohol or other drugs to make myself feel better.	Χρησιμοποιώ αλκοολούχα ποτά ή ναρκωτικά για να αισθάνομαι καλύτερα	1	2	3	4
5	I've been getting emotional support from others.	Παίρνω συναισθηματική υποστήριξη από άλλους	1	2	3	4

6	I've been giving up trying to deal with it.	Παραιτούμαι από την προσπάθεια να το αντιμετωπίσω	1	2	3	4
7	I've been taking action to try to make the situation better.	Λαμβάνω μέτρα για να βελτιώσω την κατάσταση στην οποία βρίσκομαι	1	2	3	4
8	I've been refusing to believe that it has happened.	Αρνούμαι να πιστέψω ότι συμβαίνει	1	2	3	4
9	I've been saying things to let my unpleasant feelings escape.	Λέω πράγματα για να εκτονωθούν τα αρνητικά μου συναισθήματα	1	2	3	4
10	I've been getting help and advice from other people.	Παίρνω βοήθεια και συμβουλές από άλλους	1	2	3	4
11	I've been using alcohol or other drugs to help me get through it.	Χρησιμοποιώ αλκοολούχα ποτά ή ναρκωτικά για να μπορέσω να το ξεπεράσω	1	2	3	4
12	I've been trying to see it in a different light, to make it seem more positive.	Προσπαθώ να δω την κατάσταση με διαφορετικό τρόπο, πιο θετικά	1	2	3	4
13	I've been criticizing myself.	Εξασκώ κριτική προς τον εαυτό μου	1	2	3	4
14	I've been trying to come up with a strategy about what to do.	Προσπαθώ να σκεφτώ κάποια στρατηγική για το τι θα κάνω	1	2	3	4
15	I've been getting comfort and understanding from someone.	Παίρνω παρηγοριά και κατανόηση από κάποιον	1	2	3	4
16	I've been giving up the attempt to cope.	Παραιτούμαι από την προσπάθεια να αντεπεξέλθω	1	2	3	4
17	I've been looking for something good in what is happening.	Ψάχνω για κάτι θετικό σε αυτό που συμβαίνει	1	2	3	4
18	I've been making jokes about it.	Κάνω αστεία για αυτό που συμβαίνει	1	2	3	4

19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	Κάνω κάτι για να μην το σκέφτομαι, όπως πηγαίνω στο σινεμά, βλέπω τηλεόραση, διαβάζω, ονειροπολώ, κοιμούμαι, πάω για ψώνια	1	2	3	4
20	I've been accepting the reality of the fact that it has happened.	Αποδέχομαι την πραγματικότητα γι αυτό που έγινε	1	2	3	4
21	I've been expressing my negative feelings.	Εκφράζω τα αρνητικά μου συναισθήματα	1	2	3	4
22	I've been trying to find comfort in my religion or spiritual beliefs.	Προσπαθώ να βρω παρηγοριά στην θρησκεία ή άλλες πνευματικές ενασχολήσεις	1	2	3	4
23	I've been trying to get advice or help from other people about what to do.	Προσπαθώ να πάρω συμβουλές και βοήθεια από άλλους για το τι να κάνω	1	2	3	4
24	I've been learning to live with it.	Μαθαίνω να ζω με το πρόβλημα	1	2	3	4
25	I've been thinking hard about what steps to take.	Σκέφτομαι σοβαρά για το τι βήματα πρέπει να ακολουθήσω	1	2	3	4
26	I've been blaming myself for things that happened.	Ρίχνω το φταίξιμο στον εαυτό μου για αυτό που έγινε	1	2	3	4
27	I've been praying or meditating.	Προσεύχομαι ή αυτοσυγκεντρώνομαι	1	2	3	4
28	I've been making fun of the situation.	Ειρωνεύομαι την κατάσταση	1	2	3	4

Appendix 23: Study 3 & Study 4 – DASS-42

Ελληνικό Ερωτηματολόγιο Κατάθλιψης Άγχους και Στρες (DASS-42 / Depression, Anxiety and Stress Scales (DASS-42)

DASS	Όνομα/Name	Σημερινή Ημερομηνία/Date

Παρακαλώ διαβάστε κάθε δήλωση και κυκλώστε έναν αριθμό 0..1..2, ή 3 που προσδιορίζει πόσο η συγκεκριμένη φράση ταιριάζει στο πως αισθανόσαστε την προηγούμενη εβδομάδα. Δεν υπάρχουν σωστές ή λάθος απαντήσεις. Μην μένετε πολύ σε κάθε δήλωση.

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

Βαθμολογήστε σύμφωνα με την ακόλουθη κλίμακα.

0 Δεν μου ταιριάζει καθόλου
1 Μου ταιριάζει σε κάποιο βαθμό ή σε κάποιες στιγμές
2 μου ταιριάζει σε μεγάλο βαθμό ή το για μεγάλο χρονικό διάστημα
3 Μου ταιριάζει πάρα πολύ ή το μεγαλύτερο χρονικό διάστημα

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	**Έπιασα τον εαυτό μου να αναστατώνεται από αρκετά ασήμαντα πράγματα** I found myself getting upset by quite trivial things	0	1	2	3
2	**Ένιωθα ότι το στόμα μου ήταν ξηρό** I was aware of dryness of my mouth	0	1	2	3
3	**Δεν μπορούσα να βιώσω κανένα θετικό συναίσθημα** I couldn't seem to experience any positive feeling at all	0	1	2	3
4	**Δυσκολευόμουν ν' ανασάνω (π.χ.,υπερβολικά γρήγορη αναπνοή,κόψιμο της ανάσας μου χωρίς να έχω κάνει σωματική προσπάθεια)** I experienced breathing difficulty (eg, excessively	0	1	2	3

	rapid breathing, breathlessness in the absence of physical exertion)				
5	**Μου φαινόταν πως δεν μπορούσα να κινητοποιηθώ** I just couldn't seem to get going	0	1	2	3
6	**Είχα την τάση να αντιδρώ υπερβολικά στις καταστάσεις που αντιμετώπιζα** I tended to over-react to situations	0	1	2	3
7	**Είχα ένα αίσθημα τρεμούλας (π.χ. σαν να μου κόβονται τα πόδια)** I had a feeling of shakiness (eg, legs going to give way)	0	1	2	3
8	**Μου ήταν δύσκολο να χαλαρώσω** I found it difficult to relax	0	1	2	3
9	**Βρέθηκα σε καταστάσεις που με έκαναν να έχω τόσο άγχος που ένιωσα ανακουφισμένος όταν τελείωσαν** I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10	**Ένιωσα ότι δεν είχα τίποτα να προσμένω με ενδιαφέρον** I felt that I had nothing to look forward to	0	1	2	3
11	**Έπιασα τον εαυτό μου να αναστατώνεται αρκετά εύκολα** I found myself getting upset rather easily	0	1	2	3
12	**Αισθανόμουν συχνά νευρικότητα** I felt that I was using a lot of nervous energy	0	1	2	3
13	**Ένιωθα λυπημένα και καταθλιπτικά** I felt sad and depressed	0	1	2	3
14	**Έπιασα τον εαυτό μου να γίνεται ανυπόμονος όταν καθυστερούσα με οποιοδήποτε τρόπο (π.χ., σε ανελκυστήρες, στα φανάρια κυκλοφορίας, όταν με έκαναν να περιμένω)** I found myself getting impatient when I was delayed in any way (eg, lifts, traffic lights, being kept waiting)	0	1	2	3
15	**Είχα μια αίσθηση λιποθυμίας** I had a feeling of faintness	0	1	2	3
16	**Ένιωθα ότι είχα χάσει το ενδιαφέρον μου**	0	1	2	3

	σχεδόν για όλα τα πράγματα I felt that I had lost interest in just about everything				
17	**Ένιωθα ότι δεν άξιζα πολύ ως άτομο** I felt I wasn't worth much as a person	0	1	2	3
18	**Ένιωθα ότι ήμουν αρκετά ευερέθιστος** I felt that I was rather touchy	0	1	2	3
19	**Ίδρωνα σε εμφανή σημεία (π.χ., χέρια ιδρωμένα) χωρίς να υπάρχουν υψηλές θερμοκρασίες ή να έχω κάνει σωματική άσκηση** I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20	**Ένιωσα φοβισμένος χωρίς να υπάρχει λόγος** I felt scared without any good reason	0	1	2	3
21	**Ένιωσα πως η ζωή δεν είναι σημαντική** I felt that life wasn't worthwhile	0	1	2	3
22	**Δεν μπορούσα να ηρεμήσω τον εαυτό μου** I found it hard to wind down	0	1	2	3
23	**Δυσκολευόμουν να καταπιώ** I had difficulty in swallowing	0	1	2	3
24	**Δεν μπορούσα να απολαύσω ότι και να έκανα** I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	**Αισθανόμουν την καρδιά μου να χτυπάει χωρίς να έχει προηγηθεί σωματική άσκηση (ταχυπαλμία, αρρυθμία)** I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	**Ένιωθα μελαγχολικός και απογοητευμένος** I felt down-hearted and blue	0	1	2	3
27	**Διαπίστωσα ότι ήμουν πολύ οξύθυμος** I found that I was very irritable	0	1	2	3
28	**Ένιωσα πολύ κοντά στον πανικό** I felt I was close to panic	0	1	2	3
29	**Μου φάνηκε δύσκολο να ηρεμήσω αφού κάτι με είχε πριν αναστατώσει**	0	1	2	3

	I found it hard to calm down after something upset me				
30	**Φοβήθηκα ότι κάτι ασήμαντο αλλά μη οικείο θα με έριχνε** I feared that I would be "thrown" by some trivial but unfamiliar task	0	1	2	3
31	**Τίποτα δεν μπορούσε να με κάνει να νιώσω ενθουσιασμό** I was unable to become enthusiastic about anything	0	1	2	3
32	**Μου ήταν δύσκολο να ανεχτώ να με διακόψει κάποιος σε αυτό που έκανα** I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	**Ήμουν σε μια κατάσταση νευρικής έντασης** I was in a state of nervous tension	0	1	2	3
34	**Ένιωθα σε αρκετό βαθμό ότι δεν άξιζα** I felt I was pretty worthless	0	1	2	3
35	**Δεν μπορούσα να ανεχτώ οτιδήποτε με κρατούσε από το να συνεχίσω με αυτό που έκανα** I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	**Ένιωθα τρομοκρατημένος** I felt terrified	0	1	2	3
37	**Δεν μπορούσα να δω κάτι ελπιδοφόρο στο μέλλον** I could see nothing in the future to be hopeful about	0	1	2	3
38	**Ένιωσα ότι η ζωή μου δεν είχε νόημα** I felt that life was meaningless	0	1	2	3
39	**Βρήκα τον εαυτό μου να νιώθει ενοχλημένος** I found myself getting agitated	0	1	2	3
40	**Ανησυχούσα για τις καταστάσεις στις οποίες θα μπορούσα να πανικοβληθώ και να φανώ ανόητος στους άλλους** I was worried about situations in which I might panic and make a fool of myself	0	1	2	3

41	**Αισθάνθηκα τρεμούλα (πχ. στα χέρια)** I experienced trembling (eg, in the hands)	0	1	2	3
42	**Μου φάνηκε δύσκολο να αναλάβω την πρωτοβουλία να κάνω κάποια πράγματα** I found it difficult to work up the initiative to do things	0	1	2	3

Appendix 24: Study 3 & Study 4 – SHS

Subjective Happiness Scale (SHS) / Ερωτηματολόγιο Κλίμακας της Υποκειμενικής Ευτυχίας (SHS)

For each of the following statements and/or questions, please circle the point on the scale that you feel is most appropriate in describing you.
Κάθε μια από τις ακόλουθες δηλώσεις και/ή ερωτήσεις, παρακαλώ σημειώσετε με κύκλο το σημείο πάνω στη κλίμακα που αισθάνεστε ότι σας αντιπροσωπεύει.

1. **In general, I consider myself:**
Σε γενικές γραμμές θεωρώ τον εαυτό μου:

1	2	3	4	5	6	7
not a very happy person						**a very happy person**
ένα όχι ιδιαίτερα χαρούμενο άτομο						ένα πολύ χαρούμενο άτομο

2. **Compared with most of my peers, I consider myself :**
Σε σύγκριση με τους ομολόγους μου θεωρώ τον εαυτό μου:

1	2	3	4	5	6	7
less happy						**more happy**
λιγότερο χαρούμενο						περισσότερο χαρούμενο

3. **Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you?**
Μερικοί άνθρωποι είναι γενικά πολύ χαρούμενοι. Απολαμβάνουν τη ζωή ανεξάρτητα από το τι συμβαίνει. Σε ποιο βαθμό σας περιγράφει αυτός ο χαρακτηρισμός;

1	**2**	**3**	**4**	**5**	**6**	**7**
not at all						**a great deal**
καθόλου						πολύ

4. **Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you?**
Μερικοί άνθρωποι δεν είναι γενικά πολύ χαρούμενοι. Ποτέ δε φαίνεται να είναι τόσο ευτυχείς όσο θα μπορούσαν να είναι. Σε ποιο βαθμό σας περιγράφει αυτός ο χαρακτηρισμός;

1	2	3	4	5	6	7
not at all						**a great deal**
καθόλου						πολύ

Appendix 25: Study 3 & Study 4 - SWLS

Satisfaction with Life Scale (SWLS)

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

Παρακάτω είναι 5 δηλώσεις με τις οποίες μπορείτε να διαφωνήσετε ή να συμφωνήσετε. Χρησιμοποιώντας την κατωτέρω κλίμακα από το 1 έως το 7, δείξτε το βαθμό που συμφωνείτε με κάθε στοιχείο, τοποθετώντας τον κατάλληλο αριθμό στη γραμμή που προηγείται από αυτό. Παρακαλώ να απαντήσετε ανοιχτά και με ειλικρίνια.

1 _____ **In most ways my life is close to my ideal**
Η ζωή μου είναι κοντά στο ιδανικό

2 _____ **The conditions of my life are excellent**
Οι συνθήκες της ζωής μου είναι εξαιρετικές

3 _____ **I am satisfied with my life**
Είμαι ικανοποιημένος/η με τη ζωή μου

4 _____ **So far I have gotten the important things I want in life**
Μέχρι στιγμής έχω πετύχει τα σημαντικά πράγματα που θέλω στη ζωή

5 _____ **If I could live my life over, I would change almost nothing**
Αν θα μπορούσα να ζήσω τη ζωή μου από την αρχή, δεν θα άλλαζα τίποτα

7 - Strongly agree
συμφωνώ απολύτα

6 - Agree
συμφωνώ

5 - Slightly agree
συμφωνώ εν μέρει

4 - Neither agree nor disagree
ούτε συμφωνώ ούτε διαφωνώ

3 - Slightly disagree
διαφωνώ εν μέρει

2 - Disagree
διαφωνώ

1 - Strongly disagree
διαφωνώ απολύτα

- *31 - 35* *Extremely satisfied* Εξαιρετικά ικανοποιημένος/η
- *26 - 30* *Satisfied* Ικανοποιημένος/η
- *21 - 25* *Slightly satisfied* Ελαφρώς ικανοποιημένος/η

• *20*	*Neutral*	Ουδέτερος/η
• *15 - 19*	*Slightly dissatisfied*	Ελαφρώς δυσαρεστημένος/η
• *10 - 14*	*Dissatisfied*	Δυσαρεστημένος/η
• *5 - 9*	*Extremely dissatisfied*	Εξαιρετικά δυσαρεστημένος/η

Appendix 26: Translated and Validated Scales in Greek Language

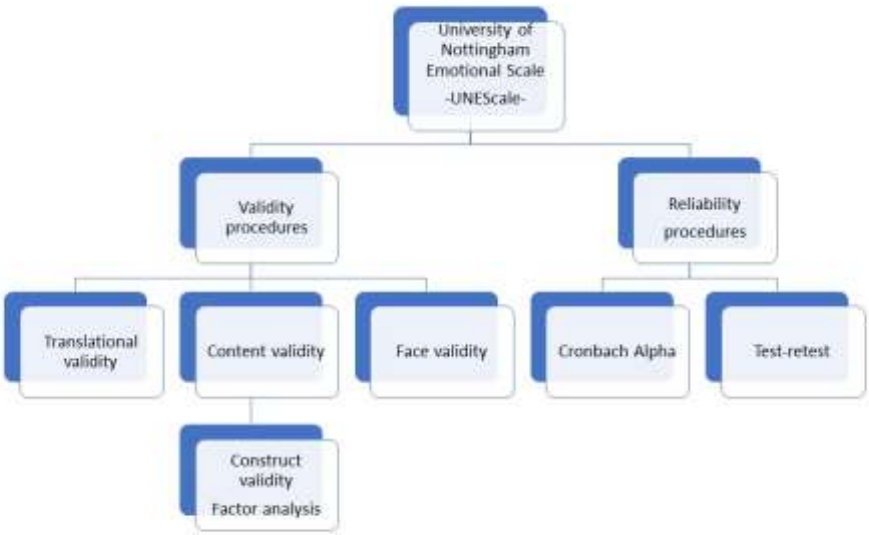
Scales will be used for UNEScalePsychometric Scale					
		Reference	**Translation Reference**	Permission to Use	
Brief Cope- 28 item	Translated and adapted	Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine*, 4, 92-100.	Kapsou, M., Panayiotou, G., Kokkinos, C. M., & Demetriou, A. G. (2010). Dimensionality of coping: An empirical contribution to the construct validation of the Brief COPE with a Greek-speaking sample. Journal of Health Psychology, 15, 215-229.	http://www.psy.miami.edu/faculty/ccarver/sclBrCOPE.html	Free to use
Subjective Happiness Scale (SHS)- 4 item	Translated and adapted	Lyubomirsky, S., & Lepper, H. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research, 46*, 137-155.	Lyrakos et al., 2013b G.N. Lyrakos, H. Dragioti, C. Batistaki, V. Spinaris Translation and validation study of the subjective happiness scale (SHS) in Greek general population, diabetes mellitus and patients with emotional disorders European Psychiatry, 28 (2013), p. 1 http://dx.doi.org/10.1016/S0924-9338(13)76488-5	http://sonjalyubomirsky.com/subjective-happiness-scale-shs/	Permission is granted for all non-commercial use.

Satisfaction with Life Scale (SWLS) -5 item	Translated and adapted	Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. ournal of Positive Psychology, 3, 137–152	Pavot, W., & Diener, E. (2008). The Satisfaction With Life Scale and the emerging construct of life satisfaction. ournal of Positive Psychology, 3, 137–152	https://internal.psychology.illinois.edu/~ediener/SWLS.html	Free to use
Depression Anxiety Stress Scale (DASS 42)	Translated and adapted	Lovibond, S. H., & Lovibond, P. F. (1995). Manual for the Depression Anxiety & Stress Scales (second edition). Psychology Foundation.	Lyrakos N. G, Arvaniti C, Smyrnioti M, Kostopanagiotou G (2011) "Translation and validation study of the Depression Anxiety Stress Scale in the Greek general population and in a psychiatric patient's sample " *European Psychiatry*, Volume 26, Issue null, Page 1731	http://www2.psy.unsw.edu.au/dass/DASSFAQ.htm#_3._How_do_I_get_permission_to_use_	Free to use

Appendix 27: Summary - Description of Nottingham Emotional Scale (NEScale) – 24 items Likert Scale

Nottingham Emotional Scale (NEScale) is a 24-item self-report inventory (Appendix 21) focusing on emotions. Respondents rate the degree to which they feel 24 emotions using a five-point scale. Respondents require on average 8 minutes to complete the scale. Table 1 shows the emotion items and instructions to respondents.
The scale groups three factors. The emotion that comprising the factors are as follows: Negative Emotions (items 3. sadness, 5. fear, 6. anger, 10. nostalgia, 11. agony, 17. stress, 22. uncertainty about future, 23. social injustice, 24. tiredness), Positive Emotions (items 1. happiness, 2. enjoyment, 7. love, 13. tranquility, 18. trust in me, 19. determination, 20. pride, 21. life satisfaction), and Trauma and Stress-Related Emotions (4. mourning sorrow, 8. meanness, 9. jealousy, 12. guilt, 14. apathy, 15. boredom, 16. sleepiness).
Translation of the Scale
The items for the original Nottingham Emotional Scale (NEScale) were in English but for this research the scale have used the Greek language version of the scale.

Psychometrics properties
Method
The methods used to validate the NEScale included:
Translational validity: content validity and face validity.
Construct validity: factor analysis.
Reliability tests: internal consistency (Cronbach's alpha) and test-retest.
A flow chart depicting the processes used to examine the validity of the NEScale is presented in Figure 1.
Figure 1



The Nottingham Emotional Scale (NEScale) was derived from the relevant emotion literature and participants feedback report:

The initial draft of the NEScale contained 58 items and participants feedback open question.

Translational validity:

All selected emotion terms are culture-free. However, cultural and linguistic validation in Greek language by bilingual native speaker was also performed to reassure that no item remained untested and avoiding selection bias**.**

Content validity: It shows whether the content mirrors a proper range of the features under study and it usually accepts seven or more experts review (Nunnally and Bernstein 1994, DeVon, Block et al. 2007). To estimate the content validity of the UNEScale, the researcher clearly defined the conceptual framework of emotions by undertaking a literature review and with respect to the meaning of emotion terms selected the basic emotion approach. Once the conceptual framework was established, eight purposely chosen experts in the areas of psychiatry, psychology, sociology, mathematics and research methods design and analysis were asked to review the draft 58-item NEScale to ensure it was reliable with the conceptual framework. Each reviewer independently examined the degree to which the measure had an appropriate sample of items, whether the items adequately represented the domain of content addressed by the measure and rated the relevance of each item on the NEScale to the conceptual framework using a 4-point Likert scale (1=not relevant, 2=somewhat relevant, 3=relevant, 4=very relevant). The Content Validity Index (CVI) was used to estimate the validity of the items (Polit and Beck 2006, Polit, Beck et al. 2007).

Criterion-related validity: It is not possible to correlate NEScale with some outside measure(s) of the same objectives since validated emotion measures in relation to hardship and unemployment do not exist.

Face validity: Each reviewer examined whether the measure reflected what is intended to measure, evaluated the appearance of the questionnaire in terms of practicability, readability, consistency of style and formatting, and the clarity of the language used for the instructions (Nevo 1985, Nunnally and Bernstein 1994, DeVon, Block et al. 2007)

Moreover, qualitative research methods used to identify empirical indicators. Specifically, two open-ended questions added asking their most dominant feelings and thoughts about hardship and unemployment and an open-ended question feedback added to help participants assess the scale in terms of: 1) the clarity of the emotions, 2) the response format, 3) number of items, and 4) add any emotion terms they believe it was relevant. Grounded theory qualitative research was chosen as the proper one from (instead of naturalistic inquiry, focus groups, ethnography and case study) for conceptualizing and operationalizing constructs since this research design adopts that multiple realities exist, and these create meaning for the individual (Streubert and Carpenter 1995). As focus of NEScale was the factor analytic techniques and not the measurement techniques, thus Likert scale (Likert 1932) was selected as a scaling approach among Thurstone, Guttman, semantic differential , graphic rating and visual analog scales. Likert scale as is a summated rating scale that can be used to quantity opinions, beliefs and attitudes through a set of items that estimates to measure a specific construct when respondents are asked to indicate the extent they agree or disagree with a given statement and that it is summed across items to get a single score (Pedhazur and Schmelkin 1991)

Construct Validity

The concept of validity was traditionally defined as "the degree to which a test measures what it claims, or purports, to be measuring" (Brown 1996).
Selected criterion for the sample size was based on Lawley and Maxwell (1971) concept "51 more cases than the number of variables" to support chi-square testing and "A ratio of 3 to 6 of STV is acceptable if the lower limit of variables-to-factors ratio is 3 to 6" (Cattell 1978). The sampling population was N=276 adults. Sample was recruited using a university-affiliated research website, http://www.survey.bristol.ac.uk, that has been developed specifically for this research project.

Measurement Framework for Instrument Development
We have two types of measurement frameworks for instrument development: (a) criterion-referenced instrument referred also as predictive indexes is to determine what an individual knows or does not know for formative evaluation and to guide the process of learning (Waltz, Strickland et al. 1984) and (b) norm-referenced instrument that is designed to measure a specific characteristics, discriminate among participants and evaluate change over time. If this goal is obtained the distribution of scores should resemble a normal curve.
NEScale is a norm-referenced instrument designed to differentiate one participant's emotion response about hardship and unemployment from the emotion responses of other participants and evaluate any change, if there is one, over time. The levels of measurement of the item scores generated by norm-referenced instruments can be interval or ratio and can be evaluated using factor analysis.

Factor Analysis
Factor Analysis as a statistical method used during instrument development to group items into common factors, infer each factor according to the items having a high loading on it with the aim to find which are the most important., and then summarise the items into a small number of factors (Bryman & Cramer 1999).
There are two types of Factor Analysis and are supported by the same mathematical model: a) exploratory (EFA) used when the researcher does not know how many factors are necessary to explain the interrelationships among a set of items (Tabachnick and Fidell 2001, Beavers, Lounsbury et al. 2013) and b) confirmatory (CFA) used to assess the extent to which a hypothesized set of identified factors fits the data for testing detailed hypotheses (Cole 1987). In terms of analytic details and UNEScale research goals, EFA was used to examine the relationships among emotion items of UNEScale without establishing a precise hypothetical mode rather defines the construct based on the theoretical framework, which shows the direction of the measure (DeVon, Block et al. 2007).
Research's null hypothesis was that no relationship exists between two different measured phenomena. NEScale analysed two populations (employed and unemployed) and assumed that data is collected from a representative randomly selected percentage of the total population, the scale of measurement applied to the data collected follows a continuous or ordinal scale, the data when plotted results in a normal distribution (bell-shaped distribution curve) and homogeneity of variance (the standards deviations of samples are approximately equal). Under these assumptions one-sample t-tests were performed and showed that 48 out of 58 items were significantly different from the value 3. As a multi-item scale most emotion items had no missing values; twenty-four (24) out of the 58 emotion items had a small number of missing values ranging from 1 to 5 (.4% to 1.8%).

Principal Component Analysis (PCA) was selected as extraction method on the 58 item NEScale for three main reasons: 1) reduce the number of variables with justification, 2) ensure your variables are independent of one another and 3) make independent variables less interpretable. Analytically, it gives you the option to analyse the total variance that consists of both the specific variation of a variable and the common variance shared by the scores of subjects with the other variables. On the contrary, Principal Axis Factoring (PAF) only analyses common variance (Bryman & Cramer 2005). Thus, PCA was considered as the best method for reducing the dimension of the feature space "dimensionality reduction" with extraction and not elimination. Principal component analysis is a technique for feature extraction. When using elimination, you lose information from those variables you have dropped whereas with extraction you create "new" independent variables on how well they predict the dependent variable (where each of the new independent variable is a combination of each of the "old" variables) thus you know which variable is the most important and you can drop the least important ones.
Thus, PCA is a method that brings together: 1) A measure of how each variable is associated with one another. (Covariance matrix.), 2) The directions in which our data are dispersed. (Eigenvectors.), 3) The relative importance of these different directions. (Eigenvalues.) PCA combines our predictors and allows us to drop the eigenvectors that are relatively unimportant.

There are three common methods to determine how many features to keep versus how many to drop.
Method 1: We subjectively select how many dimensions we want to keep.
Method 2: Calculate the proportion of variance explained for each feature, pick a threshold, and add features until you hit that threshold.
Method 3**:** This is closely related to Method 2. Calculate the proportion of variance explained for each feature, sort features by proportion of variance explained and plot the cumulative proportion of variance explained as you keep more features. This plot is called a scree plot and "find the elbow" method, as looking at the "bend" or "elbow" in the scree plot determines where the biggest drop in proportion of variance explained occurs.

According to Bryman and Cramer (2005, p 330)
Two criteria used to determine how many factors should be retained in NEScale:
The Kaiser criterion to select those factors that have an eigenvalue ≥1.
A Scree Plot to depict the descending variances that account for the factors extracted in graph form. The factors that lie before the point at which eigenvalues begin to drop can be retained.

The number of components to be extracted were set to 3 (forced extraction). This action was informed by the Scree plot, which indicates that 3 major factors stand out Furthermore, Kaiser-Meyer-Olkin sampling accuracy (KMO) and Bartlett's Test of Sphericity were used to evaluate the data. The value for the KMO test is over 0.7 and thus is accepted. Bartlett's test was statistically significant ($p \leq .0005$), indicating that the data are adequate for analysis.

With respect to the three predefined factors that were extracted, these explained 41% of the observed variance.

Reliability

Two estimators of reliability are commonly used: internal consistency reliability and test-retest reliability: both were used to examine the reliability of the NEScale.

Internal Consistency Reliability

Internal consistency examines the inter-item correlations within an instrument and shows how well the items fit together conceptually (DeVon, Block et al. 2007). In addition, a total score of all the items is computed to estimate the consistency of the whole questionnaire.

Internal consistency is measured in two ways: a) Split-Half reliability where all items that measure the same construct are divided into two sets and the correlation between the two sets is computed and b) Cronbach's alpha correlation coefficient is equivalent to the average of the all possible split-half estimates (Trochim 2001).

Cronbach's alpha was computed to examine the internal consistency of the NEScale. Since NEScale contains three subscales, Cronbach's alpha was computed for each subscale as well as the entire scale (Nunnally and Bernstein 1994, DeVon, Block et al. 2007)

Factor 1: The Cronbach reliability for those 27 items was very high and acceptable at α=.94 and described as "Negative" emotions.

Factor 2: The Cronbach reliability for these 23 self-reported emotions was very high and acceptable at α=.91 and described as "Positive" emotions.

Factor 3: The Cronbach reliability for these 8 items had a moderate to high internal consistency at an acceptable level (α=.7) and described as "Trauma and Stress-related" emotions.

Reliability of 31 item NEScale with N=2201 (Employed= 1101 and Unemployed=1100).

First Factor Analysis.

Both the KMO (.*9*) and Bartlett's ($p \leq .0005$) tests were successful and the three factors extracted explained 42% of the total observed variance.

Factor 1: The Cronbach reliability for "Negative" emotions with 13 items was high and acceptable at α=.85.

Factor 2: The Cronbach reliability for "Positive" emotions with 8 items was high and acceptable at α=.85.

Factor 3: The Cronbach reliability for "Trauma and Stress Related" emotions with 10 items was acceptable at α=.76.

PCA revealed eight items which cross-loaded with more than one factor, exhibiting loadings higher than .3; the existence of cross-loading items informed the structure of the second and final analysis.

Second factor analysis was performed with the exclusion of the 7 items (irritation, despair, depression, panic, rage, loneliness, vanity of life) and with the inclusion of the 8 item (tranquility). The KMO (.*86*) and Bartlett's ($p \leq .0005$) tests were successful and the three extracted factors explained 43% of the total observed variance.

Factor 1: The Cronbach reliability for "Negative" emotions with 9 items was high and acceptable at α=.78.

Factor 2: The Cronbach reliability for “Positive” emotions with 8 items was high and acceptable at α=.85.
Factor 3: The Cronbach reliability for “Trauma and Stress Related” emotions with 7 items was sufficient and acceptable at α=.68

BRIEF COPE These items deal with ways you've been coping with the stress in your life. There are many ways to try to deal with problems. These items ask what you've been doing to cope with this one. Obviously, different people deal with things in different ways, but I'm interested in how you've tried to deal with it. Each item says something about a particular way of coping. I want to know to what extent you've been doing what the item says. How much or how frequently. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

Οι επόμενες ερωτήσεις έχουν να κάνουν με τον τρόπο που αντιμετωπίζετε το άγχος (στρες) στη ζωή σας. Απαντήστε με βάση το κατά πόσο συχνά κάνετε αυτό που αναφέρεται στη δήλωση, ΟΧΙ κατά πόσο ο τρόπος αυτός δουλεύει για σας ή όχι. Για κάθε απάντηση σας βάλτε σε κύκλο τον αριθμό που αντιστοιχεί.

1 = I haven't been doing this at all / Δεν το κάνω καθόλου
2 = I've been doing this a little bit / Το κάνω λίγο
3 = I've been doing this a medium amount / Το κάνω σε μέτριο βαθμό
4 = I've been doing this a lot / Το κάνω πολύ

	English version	Greek Version	At all Καθόλου	A little bit Λίγο	A medium amount Μέτρια	A lot Πολύ
1	I've been turning to work or other activities to take my mind off things.	Στρέφομαι προς τη δουλειά ή άλλες ασχολίες για να παίρνω το μυαλό μου από τα προβλήματα	1	2	3	4
2	I've been concentrating my efforts on doing something about the situation I'm in.	Επικεντρώνομαι στο να κάνω κάτι για να αλλάξω την κατάσταση στην οποία βρίσκομαι	1	2	3	4
3	I've been saying to myself "this isn't real."	Λέω στον εαυτό μου «αυτό δεν μπορεί να συμβαίνει»	1	2	3	4
4	I've been using alcohol or other drugs to make myself feel	Χρησιμοποιώ αλκοολούχα ποτά ή ναρκωτικά για να αισθάνομαι καλύτερα	1	2	3	4

	better.					
5	I've been getting emotional support from others.	Παίρνω συναισθηματική υποστήριξη από άλλους	1	2	3	4
6	I've been giving up trying to deal with it.	Παραιτούμαι από την προσπάθεια να το αντιμετωπίσω	1	2	3	4
7	I've been taking action to try to make the situation better.	Λαμβάνω μέτρα για να βελτιώσω την κατάσταση στην οποία βρίσκομαι	1	2	3	4
8	I've been refusing to believe that it has happened.	Αρνούμαι να πιστέψω ότι συμβαίνει	1	2	3	4
9	I've been saying things to let my unpleasant feelings escape.	Λέω πράγματα για να εκτονωθούν τα αρνητικά μου συναισθήματα	1	2	3	4
10	I've been getting help and advice from other people.	Παίρνω βοήθεια και συμβουλές από άλλους	1	2	3	4
11	I've been using alcohol or other drugs to help me get through it.	Χρησιμοποιώ αλκοολούχα ποτά ή ναρκωτικά για να μπορέσω να το ξεπεράσω	1	2	3	4
12	I've been trying to see it in a different light, to make it seem more positive.	Προσπαθώ να δω την κατάσταση με διαφορετικό τρόπο, πιο θετικά	1	2	3	4
13	I've been criticizing myself.	Εξασκώ κριτική προς τον εαυτό μου	1	2	3	4
14	I've been	Προσπαθώ να	1	2	3	4

	trying to come up with a strategy about what to do.	σκεφτώ κάποια στρατηγική για το τι θα κάνω				
15	I've been getting comfort and understanding from someone.	Παίρνω παρηγοριά και κατανόηση από κάποιον	1	2	3	4
16	I've been giving up the attempt to cope.	Παραιτούμαι από την προσπάθεια να αντεπεξέλθω	1	2	3	4
17	I've been looking for something good in what is happening.	Ψάχνω για κάτι θετικό σε αυτό που συμβαίνει	1	2	3	4
18	I've been making jokes about it.	Κάνω αστεία για αυτό που συμβαίνει	1	2	3	4
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	Κάνω κάτι για να μην το σκέφτομαι, όπως πηγαίνω στο σινεμά, βλέπω τηλεόραση, διαβάζω, ονειροπολώ, κοιμούμαι, πάω για ψώνια	1	2	3	4
20	I've been accepting the reality of the fact that it has happened.	Αποδέχομαι την πραγματικότητα γι αυτό που έγινε	1	2	3	4
21	I've been expressing my negative feelings.	Εκφράζω τα αρνητικά μου συναισθήματα	1	2	3	4
22	I've been trying to find comfort in my religion or spiritual	Προσπαθώ να βρω παρηγοριά στην θρησκεία ή άλλες πνευματικές ενασχολήσεις	1	2	3	4

	beliefs.					
23	I’ve been trying to get advice or help from other people about what to do.	Προσπαθώ να πάρω συμβουλές και βοήθεια από άλλους για το τι να κάνω	1	2	3	4
24	I've been learning to live with it.	Μαθαίνω να ζω με το πρόβλημα	1	2	3	4
25	I've been thinking hard about what steps to take.	Σκέφτομαι σοβαρά για το τι βήματα πρέπει να ακολουθήσω	1	2	3	4
26	I’ve been blaming myself for things that happened.	Ρίχνω το φταίξιμο στον εαυτό μου για αυτό που έγινε	1	2	3	4
27	I've been praying or meditating.	Προσεύχομαι ή αυτοσυγκεντρώνομαι	1	2	3	4
28	I've been making fun of the situation.	Ειρωνεύομαι την κατάσταση	1	2	3	4

Appendix 7 Ελληνικό Ερωτηματολόγιο Κατάθλιψης Άγχους και Στρες (DASS-42 / Depression, Anxiety and Stress Scales (DASS-42)

DASS Όνομα/Name Σημερινή Ημερομηνία/Date

Παρακαλώ διαβάστε κάθε δήλωση και κυκλώστε έναν αριθμό 0..1..2, ή 3 που προσδιορίζει πόσο η συγκεκριμένη φράση ταιριάζει στο πως αισθανόσαστε την προηγούμενη εβδομάδα. Δεν υπάρχουν σωστές ή λάθος απαντήσεις. Μην μένετε πολύ σε κάθε δήλωση.

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you *over the past week*. There are no right or wrong answers. Do not spend too much time on any statement.

Βαθμολογήστε σύμφωνα με την ακόλουθη κλίμακα.

4 Δεν μου ταιριάζει καθόλου
5 Μου ταιριάζει σε κάποιο βαθμό ή σε κάποιες στιγμές
6 μου ταιριάζει σε μεγάλο βαθμό ή το για μεγάλο χρονικό διάστημα
7 Μου ταιριάζει πάρα πολύ ή το μεγαλύτερο χρονικό διάστημα

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	**Έπιασα τον εαυτό μου να αναστατώνεται από αρκετά ασήμαντα πράγματα** I found myself getting upset by quite trivial things	0	1	2	3
2	**Ένιωθα ότι το στόμα μου ήταν ξηρό** I was aware of dryness of my mouth	0	1	2	3
3	**Δεν μπορούσα να βιώσω κανένα θετικό συναίσθημα** I couldn't seem to experience any positive feeling at all	0	1	2	3
4	**Δυσκολευόμουν ν' ανασάνω (π.χ.,υπερβολικά γρήγορη αναπνοή,κόψιμο της ανάσας μου χωρίς να έχω κάνει σωματική προσπάθεια)** I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	**Μου φαινόταν πως δεν μπορούσα να**	0	1	2	3

	κινητοποιηθώ I just couldn't seem to get going				
6	**Είχα την τάση να αντιδρώ υπερβολικά στις καταστάσεις που αντιμετώπιζα** I tended to over-react to situations	0	1	2	3
7	**Είχα ένα αίσθημα τρεμούλας (π.χ. σαν να μου κόβονται τα πόδια)** I had a feeling of shakiness (eg, legs going to give way)	0	1	2	3
8	**Μου ήταν δύσκολο να χαλαρώσω** I found it difficult to relax	0	1	2	3
9	**Βρέθηκα σε καταστάσεις που με έκαναν να έχω τόσο άγχος που ένιωσα ανακουφισμένος όταν τελείωσαν** I found myself in situations that made me so anxious I was most relieved when they ended	0	1	2	3
10	**Ένιωσα ότι δεν είχα τίποτα να προσμένω με ενδιαφέρον** I felt that I had nothing to look forward to	0	1	2	3
11	**Έπιασα τον εαυτό μου να αναστατώνεται αρκετά εύκολα** I found myself getting upset rather easily	0	1	2	3
12	**Αισθανόμουν συχνά νευρικότητα** I felt that I was using a lot of nervous energy	0	1	2	3
13	**Ένιωθα λυπημένα και καταθλιπτικά** I felt sad and depressed	0	1	2	3
14	**Έπιασα τον εαυτό μου να γίνεται ανυπόμονος όταν καθυστερούσα με οποιοδήποτε τρόπο (π.χ., σε ανελκυστήρες, στα φανάρια κυκλοφορίας, όταν με έκαναν να περιμένω)** I found myself getting impatient when I was delayed in any way (eg, lifts, traffic lights, being kept waiting)	0	1	2	3
15	**Είχα μια αίσθηση λιποθυμίας** I had a feeling of faintness	0	1	2	3
16	**Ένιωθα ότι είχα χάσει το ενδιαφέρον μου σχεδόν για όλα τα πράγματα** I felt that I had lost interest in just about everything	0	1	2	3
17	**Ένιωθα ότι δεν άξιζα πολύ ως άτομο**	0	1	2	3

	I felt I wasn't worth much as a person				
18	**Ένιωθα ότι ήμουν αρκετά ευερέθιστος** I felt that I was rather touchy	0	1	2	3
19	**Ίδρωνα σε εμφανή σημεία (π.χ., χέρια ιδρωμένα) χωρίς να υπάρχουν υψηλές θερμοκρασίες ή να έχω κάνει σωματική άσκηση** I perspired noticeably (eg, hands sweaty) in the absence of high temperatures or physical exertion	0	1	2	3
20	**Ένιωσα φοβισμένος χωρίς να υπάρχει λόγος** I felt scared without any good reason	0	1	2	3
21	**Ένιωσα πως η ζωή δεν είναι σημαντική** I felt that life wasn't worthwhile	0	1	2	3
22	**Δεν μπορούσα να ηρεμήσω τον εαυτό μου** I found it hard to wind down	0	1	2	3
23	**Δυσκολευόμουν να καταπιώ** I had difficulty in swallowing	0	1	2	3
24	**Δεν μπορούσα να απολαύσω ότι και να έκανα** I couldn't seem to get any enjoyment out of the things I did	0	1	2	3
25	**Αισθανόμουν την καρδιά μου να χτυπάει χωρίς να έχει προηγηθεί σωματική άσκηση (ταχυπαλμία, αρρυθμία)** I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
26	**Ένιωθα μελαγχολικός και απογοητευμένος** I felt down-hearted and blue	0	1	2	3
27	**Διαπίστωσα ότι ήμουν πολύ οξύθυμος** I found that I was very irritable	0	1	2	3
28	**Ένιωσα πολύ κοντά στον πανικό** I felt I was close to panic	0	1	2	3
29	**Μου φάνηκε δύσκολο να ηρεμήσω αφού κάτι με είχε πριν αναστατώσει** I found it hard to calm down after something upset me	0	1	2	3
30	**Φοβήθηκα ότι κάτι ασήμαντο αλλά μη οικείο**	0	1	2	3

	θα με έριχνε I feared that I would be "thrown" by some trivial but unfamiliar task				
31	**Τίποτα δεν μπορούσε να με κάνει να νιώσω ενθουσιασμό** I was unable to become enthusiastic about anything	0	1	2	3
32	**Μου ήταν δύσκολο να ανεχτώ να με διακόψει κάποιος σε αυτό που έκανα** I found it difficult to tolerate interruptions to what I was doing	0	1	2	3
33	**Ήμουν σε μια κατάσταση νευρικής έντασης** I was in a state of nervous tension	0	1	2	3
34	**Ένιωθα σε αρκετό βαθμό ότι δεν άξιζα** I felt I was pretty worthless	0	1	2	3
35	**Δεν μπορούσα να ανεχτώ οτιδήποτε με κρατούσε από το να συνεχίσω με αυτό που έκανα** I was intolerant of anything that kept me from getting on with what I was doing	0	1	2	3
36	**Ένιωθα τρομοκρατημένος** I felt terrified	0	1	2	3
37	**Δεν μπορούσα να δω κάτι ελπιδοφόρο στο μέλλον** I could see nothing in the future to be hopeful about	0	1	2	3
38	**Ένιωσα ότι η ζωή μου δεν είχε νόημα** I felt that life was meaningless	0	1	2	3
39	**Βρήκα τον εαυτό μου να νιώθει ενοχλημένος** I found myself getting agitated	0	1	2	3
40	**Ανησυχούσα για τις καταστάσεις στις οποίες θα μπορούσα να πανικοβληθώ και να φανώ ανόητος στους άλλους** I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
41	**Αισθάνθηκα τρεμούλα (πχ. στα χέρια)** I experienced trembling (eg, in the hands)	0	1	2	3

42	**Μου φάνηκε δύσκολο να αναλάβω την πρωτοβουλία να κάνω κάποια πράγματα** I found it difficult to work up the initiative to do things	0	1	2	3

Appendix 4 Test-retest Convergent Discriminant Information Sheet

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Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
www.nottingham.ac.uk

INFORMATION SHEET -PURPOSE /ΕΝΗΜΕΡΩΤΙΚΟ ΕΝΤΥΠΟ -ΣΚΟΠΟΣ

The research is designed to explore the experience of unemployed people; their feelings, thoughts, worries, and anxieties in relation to their unemployment and develop an emotional scale to assess their emotions in relation with long term unemployment.
Η έρευνα έχει σχεδιαστεί για να διερευνήσει την εμπειρία των ανέργων και να εξερευνήσει τα συναισθήματα, σκέψεις, ανησυχίες, και ανησυχίες τους σε σχέση με την ανεργία τους και να αναπτύξει μια συναισθηματική κλίμακα για την εκτίμηση των συναισθημάτων τους σε σχέση με τη μακροπρόθεσμη ανεργία.

To qualify for this study, I am looking for/ Οι προυποθέσεις για αυτή τη μελέτη, ψάχνω για

- **men and women aged 25 to 65 years**, / άνδρες και γυναίκες ηλικίας 25 έως 65
- men and women with *higher education (BA, MSC, or PhD) / άνδρες και γυναίκες με ανώτερη εκπαίδευση*
- *men and women in long term unemployment, more than 6 months / άνδρες και γυναίκες σε μακροχρόνια ανεργία, περισσότερο από 6 μήνες*
- *not self-employed (having their own business) / όχι αυοαπασχολούμενοι (να έχουν τη δική τους επιχείρηση)*
- **not with retirement pension** / όχι με σύνταξη

The research will verify that this scale is stable and reliable over time. Participants will spend about 2 minutes filling in the questionnaire in 2 weeks prior to completion of the original paper-based survey and then in 8 weeks. During the period of 8 weeks, 4 more Scales of measuring coping will be send to you via email to respond. All information that is collected for the research will be kept strictly confidential and will be kept securely by the University in

accordance with ethical regulations for a period of 7 years. Your name or any other information that might identify on the scales will not be included. /
Η έρευνα θα πιστοποιήσει ότι αυτή κλίμακα είναι σταθερή και αξιόπιστη στην πάροδο του χρόνου. Οι συμμετέχοντες θα διαθέσουν περίπου 2 λεπτά συμπληρώνοντας το ερωτηματολόγιο 2 εβδομάδες πριν την ολοκλήρωση της αρχικής έρευνας, και στη συνέχεια σε 8 εβδομάδες. Κατά τη διάρκεια των 8 εβδομάδων, άλλες 4 κλίμακες μέτρησης προσαρμογής θα σας σταλούν μέσω e-mail για να απαντήσετε. Όλες οι πληροφορίες που συλλέγονται για την έρευνα τηρούνται αυστηρά εμπιστευτικά και φυλάσσονται με ασφάλεια από το Πανεπιστήμιο , σύμφωνα με τους ηθικούς κανονισμούς για περίοδο 7 ετών. Το όνομά σας ή οποιαδήποτε άλλη πληροφορία που μπορεί να σας ταυτοποιήσει στις κλίμακες δεν θα συμπεριληφθούν.

If you decide to take part, the researcher will contact you to arrange a convenient time to complete the measures and inform you about the 4 scales. Once the study is completed a summary of the findings will be available. The researcher will arrange for a copy to be sent to you if you wish/ Αν αποφασίσετε να πάρετε μέρος , η ερευνήτρια θα επικοινωνήσει μαζί σας για να κανονίσετε μια βολική ώρα για να ολοκληρωθούν οι μετρήσεις και να σας ενημερώσει για τις 4 κλίμακες. Μόλις ολοκληρωθεί η μελέτη μια σύνοψη των ευρημάτων θα είναι διαθέσιμα . Η ερευνήτρια θα φροντίσει για ένα αντίγραφο να σας σταλεί, αν επιθυμείτε .

Research Team/ Ερευνητική Ομάδα

Dr Nigel Hunt
Research Supervisor –Επόπτης Έρευνας
Associate Professor in Health Psychology
Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας
Faculty of Medicine & Health Sciences
Τμήμα Ιατρικής & Επιστημών Υγείας
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

Mrs. Ioanna Karaoulani
Κα. Ιωάννα Καραουλάνη
Researcher / Ερευνήτρια
Faculty of Medicine & Health Sciences
Τμήμα Ιατρικής & Επιστημών Υγείας
t: +44(0) 115 846 6484 – +30 6936586609
e: lwxik2@nottingham.ac.uk

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
www.nottinaham.ac.uk

PARTICIPANT INFORMATION

Ενημερωτικό Έντυπο

Division of Psychiatry & Applied Psychology
School of Medicine, Faculty of Medicine & Health Sciences
Τμήμα Ψυχιατρικής & Εφαρμοσμένης Ψυχολογίας
Ιατρική Σχολή, Τμήμα Ιατρικής & Επιστημών Υγείας

Project Title: Emotional reactions in the unemployed during economic recession in Greece: Emotional reactions in the unemployed during economic recession in Greece: Construction of a Self- Report Emotional Scale for Use in Unemployment (Nottingham Emotional Scale: NEScale)
Τίτλος Έρευνας: Συναισθηματικές αντιδράσεις στους άνεργους κατά τη διάρκεια της οικονομικής ύφεσης στην Ελλάδα: Κατασκευή μιας αυτο-αξιολόγησης συναισθηματικής κλίμακας για χρήση στην ανεργία (NEScale)

Researcher: Ioanna Karaoulani e-mail: lwxik2@notttingham.ac.uk
Ερευνήτρια: Ιωάννα Καραουλάνη
Supervisor: Dr Nigel Hunt e-mail: lwznch@exmail.nottingham.ac.uk
Επόπτης: Δρ Nigel Hunt
Ethics Reference Number: … *[to be inserted following ethical review]*
Αριθμός Αναφοράς Ηθικής Δεοντολογίας:

This is an invitation to take part in the 3rd & 4th study of a larger project for developing an understanding of unemployed people's emotions. The purpose of this larger project is to develop an emotional scale to assess their emotions in relation with unemployment. Your participation is valuable, with your answers on self- reports scales we will estimate the degree to which NEScale measures what it claims.
Αυτή είναι μια πρόσκληση για να συμμετέχετε στη 3η & 4η μελέτη μιας μεγαλύτερης έρευνας που θα μας βοηθήσει στη κατανόηση των συναισθημάτων των ανέργων. Ο σκοπός αυτής της μεγαλύτερης έρευνας είναι να φτιάξει μια συναισθηματική κλίμακα

για να εκτιμήσει τα συναισθήματα τους σε σχέση με την ανεργία. Η συμμετοχή σας είναι πολύτιμη, με τις απαντήσεις σας στις κλίμακες θα κατανοήσουμε τον βαθμό που η κλίμακα NEScale μετρά ότι ισχυρίζεται.

This information is designed to tell you what it will involve. Your participation is voluntary, and you may change your mind about being involved, or decline to answer a particular question. You are free to withdraw at any point before or during the study. Withdrawal does not require a reason. Once you have completed and submitted the questionnaires it is not possible to withdraw the data because we won't know who you are.
Αυτό το έντυπο πληροφόρησης έχει σχεδιαστεί για να σας πω τι θα περιλαμβάνει. Η συμμετοχή σας είναι εθελοντική, και μπορείτε να αλλάξετε γνώμη για το αν επιθυμείτε να συμμετάσχετε ή να αρνηθείτε να απαντήσετε σε μια συγκεκριμένη ερώτηση, ανά πάσα στιγμή, και χωρίς καμία αιτιολόγηση για αυτό. Είστε ελεύθεροι να αποσυρθείτε οποιαδήποτε στιγμή. Η απόσυρση σας δεν απαιτεί κάποιο λόγο. Μόλις συμπληρώσετε και υποβάλετε το ερωτηματολόγια, δεν είναι δυνατό να αποσύρετε τα δεδομένα επειδή δεν θα γνωρίζουμε ποιοι είστε.

What is the project about?
Περι τίνος πρόκειται αυτή η μελέτη;

The specific studies (3rd and 4th) are designed to discover whether or not unemployment scale (NEScale) measures what it is purported to measure.
Οι συγκεκριμένες έρευνες έχουν σχεδιασθεί για να ανακαλύψουμε εάν ή όχι η κλίμακα ανεργίας (NEScale) μετράει αυτό που ισχυρίζεται ότι μετράει.

In particular, the three aims are: (a) the research will test retest procedure to help verify that unemployment scale (NEScale) is stable over time that means that your scores on NEScale remain same or similar in 2, 4, and 6 weeks after your first test date, (b) to provide evidence for convergence between similar constructs; that means that if you have more positive than negative emotions on NEScale scale scores observe to be related with the positive emotions scales Subjective Happiness Scale (SHS) and Satisfaction with Life Scale (SWLS) (c) to provide evidence for discrimination between dissimilar constructs; that if you have more positive than negative emotions on NEScale scores observe not be related to Brief Cope and Depression, Anxiety and Stress Scale (DASS-42).
Πιο συγκεκριμένα οι τρείς σκοποί είναι: α) η έρευνα να κάνει δοκιμή επανεξέτασης για να δει αν η κλίμακα ανεργίας (NEScale) είναι σταθερή στο πέρασμα του χρόνου που αυτό σημαίνει ότι οι απαντήσεις σας στην NEScale κλίμακα παραμένουν ίδιες ή παρόμοιες σε 2, 4, 6, εβδομάδες μετά τη πρώτη σας απάντηση, (β) να δώσει αποδεικτικά στοιχεία για τη σύγκλιση μεταξύ παρόμοιων δομών; αυτό σημαίνει ότι οι θετικές σας απαντήσεις στη κλίμακα NEScale θα ταιριάζουν με τις θετικές κλίμακες Υποκειμενική Κλίμακα Ευτυχίας (SHS) και Κλίμακα Ικανοποίησης Ζωής (SWLS), (γ) να δώσει αποδειχτικά στοιχεία για απόκλιση μεταξύ ανόμοιων δομών; αυτό σημαίνει ότι οι θετικές σας απαντήσεις στη κλίμακα NEScale δεν θα ταιριάζουν με το

Ερωτηματολόγιο Προσανατολισμών στην Αντιμετώπιση Προβλημάτων (Brief Cope) και το Ελληνικό Ερωτηματολόγιο Κατάθλιψης, Άγχους και Στρες (DASS-42).

Who is being asked to take part, and why?

You are invited to participate in study 3 and study 4 because you have the following characteristics

Έχετε προσκληθεί να λάβετε μέρος στη μελέτη 3 και μελέτη 4 επειδή έχετε τα ακόλουθα χαρακτηριστικά

- **men and women aged 25 to 65 years** / άνδρες και γυναίκες ηλικίας 25 έως 65
- **men and women with *higher education (BA, MSC, or PhD)*/***άνδρες και γυναίκες με ανώτερη εκπαίδευση***
- ***men and women in unemployment, 6 months or more (≥6 months)****/ άνδρες και γυναίκες σε ανεργία, 6 μήνες ή περισσότερο (≥6 μήνες)*
- ***not self-employed (having their own business)****/ όχι αυτοαπασχολούμενοι (να έχουν τη δική τους επιχείρηση)*
- **not with retirement pension**/όχι στη σύνταξη.

What will I be asked to do?

Τι θα μου ζητηθεί να κάνω;

Participants will be asked if they will be interested to participate in the electronic test retest, convergent and discriminant phase of the unemployment scale (NEScale) through Bristol Online Surveys services which will last for a period of 2, 4, and 6 weeks; a self-report scale will be sent every second (2nd) week. If you agree to take part in this study, you will be contacted by the researcher Mrs Ioanna Karaoulani via email and you will be asked to fill in the following four (4) self-reports scales: (1) Subjective Happiness Scale (SHS-4 items), (2) Brief Cope-28 items, (3) Satisfaction with Life Scale (SWLS- 5 items) and (4) Depression, Anxiety and Stress Scale (DASS-42 items). Each self- report scale is less than 5 min duration.

Οι συμμετέχοντες θα ερωτηθούν αν ενδιαφέρονται να συμμετάσχουν στην ηλεκτρονική φάση της συγκλίνουσα-διαφορετική φάση της κλίμακας ανεργίας (NEScale) μέσω Bristol Online Surveys που θα διαρκέσει 2, 4, 6 εβδομάδες; μια κλίμακα θα τους αποστέλεται κάθε δεύτερη (2η) εβδομάδα. Εάν συμφωνήσεις να συμμετέχεις σε αυτή τη μελέτη, θα έρθεις σε επικοινωνία με την ερευνήτρια κα Ιωάννα Καραουλάνη μέσω ηλεκτρονικού ταχυδρομείου-email και θα σου ζητηθεί να συμπληρώσεις τις ακόλουθες τέσσερις (4) κλίμακες: (1) Υποκειμενική Κλίμακα Ευτυχίας (SHS- 4 στοιχεία), (2) Ερωτηματολόγιο Προσανατολισμών στην Αντιμετώπιση Προβλημάτων (Brief Cope- 28 στοιχεία), (3) Κλίμακα Ικανοποίησης Ζωής (SWLS- 5 στοιχεία) και (4) Ερωτηματολόγιο Κατάθλιψης, Άγχους και Στρες (DASS-42 στοιχεία). Η κάθε κλίμακα διαρκεί λιγότερο από 5 λεπτά.

Your participation is valuable and we appreciate your time and your effort in study 3 and study 4. Even if you participation is voluntary and not monetary, it is in our high priorities to make you feel safe and minimize any possible discomfort during or after your participation. For that reason, during and at the end of the test-retest convergent and discriminant phase of this research a debriefing session will follow to ensure how you feel after the 2,4,6 time points fulfilling the questionnaires. Moreover, you may contact anytime the supervisor of the study Dr Nigel Hunt at the telephone number (+44) 0115 8415315 if you would like to discuss questions that might emerge during the 2 weeks, 4 weeks, 6 weeks and 8 weeks of your participation. This research seeks to reduce all foreseeable threats to the participants' psychological well-being, health, values or dignity, but for minimizing any potential risk, two psychiatrists/psychotherapists (1) Dr Ioannis Kakaflikas (phone number: (+30) 2107018739) and Dr Dimitrios Stogioglou (phone number: (+30) 2106754815) will be available to contact (in-person and a phone conversation) in case you experience stress or discomfort during or after your participation, with no charge for the visits.

Η συμμετοχή σας είναι πολύτιμη και εκτιμούμε το χρόνο σας και την προσπάθειά σας στη μελέτη 3 και τη μελέτη 4. Ακόμη και αν η συμμετοχή σας είναι εθελοντική και όχι με πληρωμή, είναι στις υψηλές μας προτεραιότητες να σας κάνουμε να νιώθετε ασφαλείς και να ελαχιστοποιήσουμε τυχόν δυσφορία κατά τη διάρκεια ή μετά τη συμμετοχή σας. Για το λόγο αυτό, κατά τη διάρκεια και στο τέλος της δοκιμαστικής επανεξέτασης της φάσης σύγκλισης και διάκρισης αυτής της έρευνας, θα ακολουθήσει μια συζήτηση για να δούμε πως αισθάνεστε μετά τα 2,4,6 χρονικά σημεία που συμπληρώνοντας τα ερωτηματολόγια. Επιπλέον, μπορείτε να επικοινωνήσετε οποιαδήποτε στιγμή με τον επιβλέποντα της μελέτης Dr Nigel Hunt στον αριθμό τηλεφώνου(+44) 0115 8415315 αν θέλετε να συζητήσετε ερωτήσεις που θα μπορούσαν να προκύψουν κατά τη διάρκεια των 2 εβδομάδων, 4 εβδομάδων, και 6 εβδομάδων από τη συμμετοχή σας. Η έρευνα αυτή αποσκοπεί στον περιορισμό όλων των προβλέψιμων απειλών για την ψυχολογική ευημερία, την υγεία, τις αξίες ή την αξιοπρέπεια των συμμετεχόντων, αλλά για την ελαχιστοποίηση οποιουδήποτε πιθανού κινδύνου, δύο ψυχίατροι / ψυχοθεραπευτές (1) Δρ Ιωάννης Κακαφλίκας (αριθμός τηλεφώνου: (+30) 2107018739 και Δρ. Δημήτριος Στογιόγλου (αριθμός τηλεφώνου (+30) 2106754815 θα είναι διαθέσιμοι για να επικοινωνήσετε (προσωπικά και με τηλεφωνική συνομιλία) σε περίπτωση που αισθανθείτε άγχος ή δυσφορία κατά τη διάρκεια ή μετά τη συμμετοχή σας, χωρίς χρέωση για τις επισκέψεις.

Will the research be of any personal benefit to me?
Θα είναι αυτή η έρευνα προς προσωπικό μου όφελος;

The research may not be of any immediate personal benefit to you but it will help us to create a scale to better understand unemployed emotions in relation to unemployment. It is essential to mention that there are no scales that estimate the emotional state of unemployed in relation to their unemployment. As a result there are no equivalent psychological treatments to help improve the quality of

life of people in unemployment and prevent possible psychological problems to unemployed.
Η μελέτη αυτή δεν θα έχει ένα άμεσο προσωπικό όφελος για εσάς αλλά θα μας βοηθήσει να δημιουργήσουμε μια κλίμακα για να κατανοήσουμε περισσότερο τα συναισθήματα των ανέργων σχετικά με την ανεργία. Είναι σημαντικό να πούμε ότι δεν υπάρχουν κλίμακες για να εκτιμήσουν τη συναισθηματική κατάσταση των ανέργων σχετικά με την ανεργία τους. Ως εκ τούτου δεν υπάρχουν οι αντίστοιχες ψυχολογικές θεραπείες για να συμβάλουν στην βελτίωση της ποιότητας ζωής των ανθρώπων στην ανεργία και την πρόληψη των πιθανών ψυχολογικών προβλημάτων στους ανέργους.

What will happen to the information I provide?
Τι θα συμβεί με τις πληροφορίες που θα δώσω;

All information which is collected about you during the studies will be kept on a password protected database through Bristol online Surveys services and is strictly confidential. Your name or any other information that might identify you in the questionnaires will not be included. This research uses pseudonymisation (key coding) and conceals identities of participants in all outcomes resulting from the research and we reassure that you cannot be indirectly identified via location or demographic data
Όλες οι πληροφορίες που συλλέγονται για εσάς κατά τη διάρκεια των μελετών θα κρατηθούν σε μια ηλεκτρονική βάση δεδομένων μέσω Bristol online Surveys με κωδικό πρόσβασης και είναι απολύτως εμπιστευτικό. Το όνομά σας ή οποιαδήποτε άλλη πληροφορία που μπορεί να σας ταυτοποιήσει στα ερωτηματολόγια δεν θα συμπεριληφθούν. Αυτή η έρευνα χρησιμοποιεί ψευδώνυμα (κωδικοποίηση κλειδιού) και αποκρύπτει τις ταυτότητες των συμμετεχόντων σε όλα τα αποτελέσματα που προκύπτουν από την έρευνα και σας επιβεβαιώνουμε ότι δεν μπορείτε να ταυτοποιηθείτε έμμεσα μέσω γεωγραφικής τοποθεσίας ή δημογραφικών στοιχείων.

Your personal data (email address) will be retained for 12 months after the study concludes to allow us to inform you of the findings of the study. All other data (research data) will be kept securely for a period of seven years, during which all necessary precautions will be taken to maintain your confidentiality by all those involved in the study, with only members of the research team having access to your personal data. After this time, your data will be disposed of securely. Although the information we collect about you is confidential, should you disclose anything to us which we feel puts you or anyone else at risk, we may deem it necessary to report this information to the appropriate body.
Τα προσωπικά σας δεδομένα (διεύθυνση ηλεκτρονικού ταχυδρομείου) θα παραμείνουν για 12 μήνες μετά την ολοκλήρωση της μελέτης, ώστε να μας επιτρέψετε να σας ενημερώσουμε για τα ευρήματα της έρευνας. Όλα τα άλλα δεδομένα (ερευνητικά δεδομένα) θα διατηρούνται με ασφάλεια για περίοδο επτά ετών, κατά τη διάρκεια της οποίας θα ληφθούν όλες οι απαραίτητες προφυλάξεις για να διατηρηθεί η εμπιστευτικότητα σας από όλους τους συμμετέχοντες στη μελέτη, ενώ μόνο μέλη της ερευνητικής ομάδας να έχουν πρόσβαση στα προσωπικά σας δεδομένα. Μετά από αυτό το διάστημα, τα δεδομένα σας θα διαγραφούν με

ασφάλεια. Παρόλο που οι πληροφορίες που συλλέγουμε σχετικά με εσάς είναι εμπιστευτικές, θα πρέπει να μας γνωστοποιήσετε οτιδήποτε πιστεύετε ότι θέτει εσάς ή οποιοδήποτε άλλον σε κίνδυνο, ενδέχεται να θεωρήσουμε απαραίτητο να αναφέρουμε αυτές τις πληροφορίες στον αρμόδιο φορέα.

Other authorised persons may also review the data in order to verify that the study is being carried out correctly. All such personnel will maintain a duty of confidentiality to you as a research participant, and will do their best to meet this duty. All information collected about you during this research project will be kept strictly confidential.
Άλλα εξουσιοδοτημένα άτομα μπορούν επίσης να δούνε τα δεδομένα προκειμένου να επαληθεύσουν ότι η μελέτη διεξάγεται σωστά. Όλο αυτό το προσωπικό θα διατηρήσει την υποχρέωση εμπιστευτικότητας σε εσάς ως συμμετέχοντα στην έρευνα και θα καταβάλει κάθε προσπάθεια για να ανταποκριθεί σε αυτό το καθήκον. Όλες οι πληροφορίες που συλλέγονται για εσάς κατά τη διάρκεια αυτής της έρευνας θα διατηρηθούν αυστηρά εμπιστευτικές.
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What will you do with the data?
Τι θα κάνεις με τα δεδομένα;

These findings from this study will be written up for Mrs Ioanna's Karaoulani PhD degree in Clinical Psychology. The results of this study may also be published in academic journals or presented at academic conferences, details or a copy of which can be provided to you upon request. Remember that you will not be identified in any report or publication.
Τα ευρήματα αυτής της μελέτης θα συνταχθούν για το Διδακτορικό πτυχίο της κας Ιωάννας Καραουλάνη στην κλινική ψυχολογία. Τα αποτελέσματα αυτής της μελέτης μπορούν επίσης να δημοσιευθούν σε ακαδημαϊκά περιοδικά ή να παρουσιαστούν σε ακαδημαϊκά συνέδρια, λεπτομέρειες ή αντίγραφο των οποίων μπορεί να σας δοθει κατόπιν αιτήματος. Θυμηθείτε ότι δεν θα ταυτοποιηθείτε σε καμία αναφορά ή δημοσίευση.

The future use of Unemployment Scale is to help to plan an intervention to strengthen the characteristics of the social environment that can be considered coping resources that facilitate effective coping behaviour in hardship and decrease the emotional distress associated with unemployment.
Η μελλοντική χρήση της κλίμακας ανεργίας είναι να βοηθήσει στο σχεδιασμό μιας παρέμβασης για την ενίσχυση των χαρακτηριστικών του κοινωνικού περιβάλλοντος που διευκολύνουν την προσαρμογή σε δυσκολίες και μειώνουν την συναισθηματική δυσφορία που συνδέεται με την ανεργία.

At the end of the project, all raw data will be kept securely by the University under the terms of the Data Protection Act. The data will not be kept elsewhere.
Στο τέλος της έρευνας, όλα τα δεδομένα θα τηρούνται με ασφάλεια από το Πανεπιστήμιο σύμφωνα με τους όρους του νόμου περί προστασίας δεδομένων. Τα δεδομένα δεν θα φυλάσσονται κάπου αλλού.

If you have any questions or concerns, please don't hesitate to ask. We can be contacted before and after your participation either using the email addresses given above or by writing to Dr Nigel Hunt, Associate Professor, Faculty of Medicine & Health Sciences, Room B19, International House, Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, United Kingdom.
Εάν έχετε οποιεσδήποτε ερωτήσεις ή ανησυχίες, παρακαλώ μη διστάσετε να ρωτήσετε. Μπορούμε να επικοινωνήσουμε μαζί σας πριν και μετά τη συμμετοχή σας, είτε χρησιμοποιώντας τις διευθύνσεις ηλεκτρονικού ταχυδρομείου που δόθηκαν παραπάνω είτε γράφοντας στον Δρ Nigel Hunt, Αναπληρωτή Καθηγητή, Ιατρική Σχολή, Γραφείο B19 International House, Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, Ηνωμένο Βασίλειο.

THANK YOU FOR YOUR PARTICIPATION
ΕΥΧΑΡΙΣΤΟΥΜΕ ΓΙΑ ΤΗΝ ΣΥΜΜΕΤΟΧΗ ΣΑΣ

If you have any queries or complaints about this study, please contact the student's supervisor in the first instance. If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, B Floor, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

Αν έχετε απορίες ή παράπονα σχετικά με αυτή την έρευνα, παρακαλώ να επικοινωνήσετε με τον επόπτη της έρευνας, σε πρώτη φάση. Εάν παραμείνετε δυσαρεστημένος/η. και επιθυμείτε να παραπονεθείτε και επισήμως, τότε μπορείτε να απευθυνθείτε στον Υπεύθυνο στη Διεύθυνση της Επιτροπής FMHS Research Ethics Committee, Πανεπιστήμιο Nottingham, Τμήμα PVC Γραφείο, Όροφος B, Ιατρική Σχολή, Queen's Medical Centre Campus, Νοσοκομεία Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

Internet Studies (via email)
Διαδικτυακές 'Ερευνες (μέσω ηλεκτρονικού ταχυδρομείου)

We believe there are no known risks associated with this research study; however, as with any online related activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this project (study 3 and study 4) will remain anonymous. We will minimize any risks by keeping all information about you during the studies on a password protected database through Bristol online Surveys services and researcher's Mrs Ioanna Karaoulani university email (lwxik2@nottingham.ac.uk) and is strictly confidential. Your name or any other information that might identify you on Bristol online Surveys services will be kept with pseudonymisation (key coding)

that conceals identities of participants in all outcomes resulting from the research and we reassure that you cannot be indirectly identified via location or demographic data

Πιστεύουμε ότι δεν υπάρχουν γνωστοί κίνδυνοι που σχετίζονται με αυτή τη μελέτη έρευνας. Ωστόσο, όπως και με οποιαδήποτε σχετική δραστηριότητα στο διαδίκτυο, ο κίνδυνος παραβίασης είναι πάντα εφικτός. Θα κάνουμε ό, τι είναι δυνατόν για να εξασφαλίσουμε ότι οι απαντήσεις σας στη μελέτη αυτή θα παραμείνουν ανώνυμες.
Θα ελαχιστοποιήσουμε τους κινδύνους κρατώντας όλες τις πληροφορίες σχετικά με εσάς κατά τη διάρκεια αυτής της μελέτης (μελέτη 3 και μελέτη 4) σε μια βάση δεδομένων που προστατεύεται με κωδικό πρόσβασης μέσω των υπηρεσιών ηλεκτρονικών ερευνών του Bristol και του πανεπιστημιακού ηλεκτρονικού ταχυδρομείου της κυρίας Ioanna Karaoulani (lwxik2@nottingham.ac.uk) και είναι απόλυτα εμπιστευτική. Το όνομά σας ή οποιεσδήποτε άλλες πληροφορίες που θα μπορούσαν να σας αναγνωρίσουν στις υπηρεσίες Surveys online του Bristol θα διατηρηθούν με ψευδονομία (κωδικοποίηση κλειδιών) που αποκρύπτει την ταυτότητα των συμμετεχόντων σε όλα τα αποτελέσματα που προκύπτουν από την έρευνα και διαβεβαιώνουμε ότι δεν μπορείτε να ταυτοποιηθείτε έμμεσα μέσω γεωγραφικής τοποθεσίας ή δημογραφικών στοιχείων.

At the end of the project, all raw data will be kept securely by the University under the terms of the Data Protection Act. The data will not be kept elsewhere. Your personal data (email address) will be retained for 12 months after the study concludes to allow us to inform you of the findings of the study. All other data (research data) will be kept securely for a period of 7 years, during which all necessary precautions will be taken to maintain your confidentiality by all those involved in the study, with only members of the research team having access to your personal data. After this time, your data will be deleted from Bristol online Surveys services and researcher's university email will be deactivated securely after the completion of her PhD degree.

Στο τέλος της έρευνας, όλα τα δεδομένα θα τηρούνται με ασφάλεια από το Πανεπιστήμιο σύμφωνα με τους όρους του νόμου περί προστασίας δεδομένων. Τα δεδομένα δεν θα φυλάσσονται κάπου αλλού. Τα προσωπικά σας δεδομένα (διεύθυνση ηλεκτρονικού ταχυδρομείου) θα παραμείνουν για 12 μήνες μετά την ολοκλήρωση της μελέτης, ώστε να μας επιτρέψετε να σας ενημερώσουμε για τα ευρήματα της έρευνας. Όλα τα άλλα δεδομένα (ερευνητικά δεδομένα) θα διατηρούνται με ασφάλεια για περίοδο 7 ετών, κατά τη διάρκεια της οποίας θα ληφθούν όλες οι απαραίτητες προφυλάξεις για να διατηρηθεί η εμπιστευτικότητα σας από όλους τους συμμετέχοντες στη μελέτη, ενώ μόνο μέλη της ερευνητικής ομάδας να έχουν πρόσβαση στα προσωπικά σας δεδομένα. Μετά από αυτό το διάστημα, τα δεδομένα σας θα διαγραφούν με ασφάλεια Bristol online Surveys services και το ηλεκτρονικό ταχυδρομείο της ερευνήτριας κας Ιωάννα Καραουλάνη δεν θα είναι σε ισχύ μετά την ολοκλήρωση του διδακτορικού της πτυχίου.

The University of Nottingham
UNITED KINGDOM · CHINA · MALAYSIA

Faculty of Medicine & Health Sciences
Division of Psychiatry & Applied Psychology
International House, Jubilee Campus, Nottingham, NG8 1BB
t: +44 (0)115 846 6484, **f:** +44 (0)115 846 6625
www.nottinaham.ac.uk

PARTICIPANT CONSENT

Division of Psychiatry & Applied Psychology
School of Medicine, Faculty of Medicine & Health Sciences

Project Title: Emotional reactions in the unemployed during economic recession in Greece: Emotional reactions in the unemployed during economic recession in Greece: Construction of a Self- Report Emotional Scale for Use in Unemployment (Nottingham Emotional Scale: NEScale)
Τίτλος Έρευνας: Συναισθηματικές αντιδράσεις στους άνεργους κατά τη διάρκεια της οικονομικής ύφεσης στην Ελλάδα: Κατασκευή μιας αυτο-αξιολόγησης συναισθηματικής κλίμακας για χρήση στην ανεργία (NEScale)
Researcher: Ioanna Karaoulani [university e-mail] lwxik2@nottingham.ac.uk

Supervisor Dr Nigel Hunt [university e-mail] lwznch@exmail.nottingham.ac.uk

Ethics Reference Number: …. *[to be inserted following ethical review]*

CONSENT FORM / ΈΝΤΥΠΟ ΣΥΓΚΑΤΑΘΕΣΗΣ

Thank you for agreeing to participate in this study.

Your participation is voluntary, and you may change your mind about being involved, or decline to answer a particular question at any time, and without giving a reason. You are free to withdraw at any point before or during the study. In case of anonymous questionnaire, once you have completed the study and submitted your questionnaire, the data cannot be withdrawn.
Η συμμετοχή σας είναι εθελοντική, και μπορείτε να αλλάξετε γνώμη για το αν επιθυμείτε να συμμετάσχετε ή να αρνηθείτε να απαντήσετε σε μια συγκεκριμένη ερώτηση, ανά πάσα στιγμή, και χωρίς καμία αιτιολόγηση για αυτό. Είστε ελεύθεροι να αποσυρθείτε οποιαδήποτε στιγμή. Σε περίπτωση ανώνυμου ερωτηματολογίου, αφού έχετε ολοκληρώσει τη μελέτη και υποβάλλει το ερωτηματολόγιο, τα δεδομένα δεν μπορούν να αποσυρθούν.
Yes/ Ναι _____ **No**/ Όχι _____

I understand that the researcher may wish to publish results from the research. If this does occur I understand that my identity will be concealed/ Καταλαβαίνω ότι η ερευνήτρια μπορεί να επιθυμεί να δημοσιεύσει τα αποτελέσματα από την έρευνα. Εάν αυτό συμβεί καταλαβαίνω ότι η ταυτότητά μου θα είναι κρυφή.

Yes/ Ναι _____ **No**/ Όχι _____

I agree to fill in the 4 self -reports scales during the duration of 2, 4, 6 weeks.
Συμφωνώ να συμπληρώσω τις 4 κλίμακες στη διάρκεια των 2, 4, 6 εβδομάδες.

Yes/ Ναι _____ **No**/ Όχι _____

Information you need to know:/ Πληροφορίες που πρέπει να ξέρετε

- **Your name will not be included on any documents**./ Το όνομα σας δεν θα συμπεριληφθεί σε κανένα κείμενο
- **You cannot be identified from any of (the information collected) this information**./ Δεν μπορείτε να ταυτοποιηθείτε από καμία από τις πληροφορίες (πού έχουν συλλεχθεί)
- **This informed consent (you agree to) will not be kept with any of the other documents completed with this project**/ Αυτό το έντυπο συγκατάθεσης (που συμφωνείτε) δεν θα κρατηθεί με κανένα άλλο έντυπο που έχει συμπληρωθεί με αυτή την έρευνα.
- **Your participation in this research is entirely voluntary. You have the right to withdraw at any point of the study, for any reason, and without any consequence.** / Η συμμετοχή σας σε αυτή την έρευνα είναι απολύτως εθελοντική. Έχετε το δικαίωμα να αποσυρθείτε σε οποιοδήποτε σημείο της μελέτης, για οποιοδήποτε λόγο, και χωρίς καμία συνέπεια.
- **If any of your replies cause you emotional stress, you may contact (free of charge) psychiatrists Dr Kakaflikas Ioannis (tel: 2107018739) and Dr Stogioglou Dimitrios (tel: 210 6754815) to discuss this issue** / Σε περίπτωση που κάποιες από τις απαντήσεις σας, σας προκαλέσουν συναισθηματική αναστάτωση μπορείτε να επικοινωνήσετε (δωρεάν) με τους ψυχιάτρους Δρ Κακαφλίκας Ιωάννης (τηλ: 2107018739) και Δρ Στογιόγλου Δημήτριος (τηλ: 210 6754815) για να συζητήσετε το θέμα αυτό.

This research has been reviewed and approved by the University of Nottingham, UK. The University has determined that this research meets the ethical obligations required by University policies. If you have questions or concerns regarding this research please contact the Researcher or Research Advisor. If you have any questions, concerns, or reports regarding your rights as a research participant, please contact the University of Nottingham, Medical School, UK./ Αυτή η μελέτη έχει ελεγχθεί και εγκριθεί από το Πανεπιστήμιο του Nottingham, Ηνωμένο Βασίλειο. Το Πανεπιστήμιο έχει αποφασίσει ότι η έρευνα αυτή πληρεί τις ηθικές υποχρεώσεις που απαιτούνται από τις πολιτικές του Πανεπιστημίου. Αν έχετε απορίες ή ανησυχίες σχετικά με την έρευνα αυτή, παρακαλούμε επικοινωνήστε με

την Ερευνήτρια ή Σύμβουλο Έρευνας. Αν έχετε οποιεσδήποτε απορίες, ανησυχίες, ή τις αναφορές σχετικά με τα δικαιώματά σας ως συμμετέχων στην έρευνα, παρακαλείστε να επικοινωνήσετε με το Πανεπιστήμιο του Nottingham, Ιατρική Σχολή, Ηνωμένο Βασίλειο.

By signing this consent form you agree to participate in research entitled Project Emotional reactions in the unemployed during economic recession in Greece: Construction of a Self- Report Emotional Scale for Use in Unemployment (Nottingham Emotional Scale: NEScale).
Με την υπογραφή του παρόντος εντύπου συγκατάθεσης συμφωνείτε να συμμετάσχετε στην έρευνα με τίτλο Τίτλος Έρευνας: Συναισθηματικές αντιδράσεις στους άνεργους κατά τη διάρκεια της οικονομικής ύφεσης στην Ελλάδα: Κατασκευή μιας αυτο-αξιολόγησης συναισθηματικής κλίμακας για χρήση στην ανεργία (NEScale).

- **All questions concerning the research have been satisfactorily answered**./ Όλες οι ερωτήσεις σχετικά με την έρευνα έχουν απαντηθεί ικανοποιητικά
- **I certify that I am 25 years old or older and**, / Βεβαιώνω ότι είμαι 25 ετών και άνω.

Signature/Υπογραφή……..**Date**/Ημερομηνία……

Research Team/ Ερευνητική Ομάδα

Dr Nigel Hunt
Research Supervisor –Επόπτης Έρευνας
Associate Professor in Health Psychology
Αναπληρωτής Καθηγητής Ψυχολογίας της Υγείας
Faculty of Medicine & Health Sciences
Τμήμα Ιατρικής & Επιστημών Υγείας
t: +44(0) 115 846 6484
e: nigel.hunt@nottingham.ac.uk

Mrs. Ioanna Karaoulani
Κα. Ιωάννα Καραουλάνη
Researcher / Ερευνήτρια
Faculty of Medicine & Health Sciences
Τμήμα Ιατρικής & Επιστημών Υγείας
t: +44(0) 115 846 6484 – +30 6936586609
e: lwxik2@nottingham.ac.uk

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