

New Forms of Uncertainty in the Individualized Society: Adaptation and Validation of the Uncertainty Response Scale (URS, Greco & Roger, 2001) to Portuguese Population and the Creation of a Scale on the Perception of Uncertainty in the Social Context and its Psychological Consequences

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Abstract

This paper aims the psychological study of uncertainty as an inevitable aspect of human experience, inherent to quotidian life, as well as to fundamental decisions and existential features of individual narratives. Therefore, we intend to contribute to the methodological development of uncertainty coping strategies' assessment by adapting and validating the Uncertainty Response Scale (Greco & Roger, 2001) to Portuguese population and by developing and validating a pool of items that intends to create a new scale related to uncertainty perception in aspects of the social context with which individuals interact. In this sense, we intend to analyse uncertainty origins at an individual/psychological level as well as at a social/cultural/political level, reflecting Peter Marris' (1996) theoretical contribution.

Introduction

This paper focuses on the study of uncertainty as a decisive dimension in human experience. Therefore, the object of this research is the psychological meaning of uncertainty and the following objectives were defined:

- To understand and conceptualize psychological dimensions of uncertainty, how individuals live, perceive and give meaning to it;
 - To articulate psychological dimensions of uncertainty with its social, cultural and political sources;
 - To contribute to the methodological development in the assessment of coping strategies towards uncertainty and in the perception of uncertainty in the social context and its individual psychological consequences;
1. To adapt and validate the *Uncertainty Response Scale*(URS, Greco & Roger, 2001) to Portuguese population,
 2. To create a new scale that articulates individual, contextual and cultural/macro systemic dimensions of the experience of uncertainty.

We will present a theoretical contextualization on the theme as well as some preliminary results regarding the adaptation and validation of these two scales.

CONTEXTUALIZATION AND THEORETICAL FRAMEWORK

Theoretical Contributions and the Social Context

“All of us, in a greater or lesser degree, understand the world in which we live in as filled with risk, as uncertain and insecure.”(Bauman, 2002). According to the author, in the contemporary “liquid”, “post-modern”, “individualized” society, dominated by individualization as a hegemonic form of socialization, what was previously understood as long-lasting and stable, from social position, to employment and interpersonal relationships, has become unstable and vulnerable: “unsafe harbors to anchor our trust.” (Bauman, 2002).

Uncertainty has a fundamental role in human experience, being present in all small daily life’s decisions, as well as in structural decision making situations in individual life and in the existential dimension in a broad sense. Therefore, the process of giving meaning to the world that surrounds us changes when this is a world characterized by uncertainty given that it’s the way in which we perceive it and the power that we believe to possess to control it that influences the strategies we use to manage it and its consequences in our personal experience.

The developmental and psychological origins of how we cope with uncertainty, as well as our personal and relational resources to deal with it may be found in the structures of attachment relationships – which central feature is the degree of security they provide us – or in Erickson’s concept of basic trust (1963, cit in Coimbra, 2005). In fact, taking into account an analysis of the importance of the activation of the attachment system in the way we deal with uncertainty in personal and social terms, Peter Marris (1996) describes uncertainty as being created by our needs of order and predictability. This need is developed since childhood in the context of our primary attachment relationships, through which we construct internal working models that allow us to understand and give meaning to the world and everything that surrounds us. Therefore, “What constitutes uncertainty depends on what we want to be able to predict, what we can predict, and what we might be able to do about it. (...) When events are entirely beyond our control we no longer face the responsibility of acting, with all its anxieties.” (Marris, 1996). The author supports that the contemporary society has generated an unequal distribution of power to control uncertainty and that the strategies that the disfavoured populations are led to use in order to control and manage uncertainty reinforce these same inequalities. Hence, this uncertainty described by Peter Marris seems already too distant from the human uncertainties of the past.

Considering subjectivity as a result of an historical development (Foucault, 1986), the process of weakening of past’s collective and inclusive meta-narratives that had the role of giving a coherent meaning to human existence, seems to have created a new challenge for the individual in terms of the construction of psychological meanings that give a sense of consistency to experiences in a context characterized by these new forms of uncertainty, ambiguity, insecurity and, mainly, of greater complexity (Coimbra, 2005). Consequently, by freeing ourselves of collective meta-narratives, we appear to have contributed to the development of the individualized society proposed by Bauman (2002). This apparently freeing process seems, not only, to have created new forms of uncertainty, but also to have contributed to form an individualization characterized by loneliness, ambivalence, ambiguity, insecurity, through which we have lost the possibility of control over the present and, therefore, of planning for the future. “Uncertainty is today a powerful individualization force. It divides instead of unifying and because there is no way of telling who will survive this division, the idea of “common interests” becomes even vaguer, and at last incomprehensible.” (Bauman, 2002).

This research positions itself in a constructivist, developmental and social constructionist framework, considering that to understand the psychological meaning of uncertainty and its new emerging forms will be fundamental to take into account:

- That the construction of daily life knowledge, which has a predominantly pragmatic orientation, is based on the surrounding discourses and on the social construction of reality that is “internalized” and allows us to give meaning to our individual experience (Berger & Luckmann, 1966; Gergen, 1998);
- That the influence of self organization processes throughout life and relationships and the way we integrate our relational stories and give meaning to events, the world and others (Guidano, 1991; Mahoney, 1991), will allow us to construct a viable and coherent life narrative.

Uncertainty as an invariant of Human experience – Results from research in this scope

According to some authors, uncertainty can be perceived as the way individuals understand information in situations that can be characterized as uncertain and how they respond with a set of reactions at a cognitive, emotional and behavioral level (Freeston et al., 1994). As defined by Monat, Averill & Lazarus (1972), uncertainty is the period of anticipation, prior to the confrontation with an event potentially threatening, or perceived as such. Stress under these conditions varies according to the individual’s efforts to assess and deal with the event.

In the scope of the research on uncertainty, some constructs have been analyzed, namely Intolerance to Ambiguity (IA) and Intolerance to Uncertainty (IU). Grenier, Barrette & Ladouceur (2005) describe how during decades these concepts have been used by researchers in an indistinct fashion, defining them as similar. IA can be portrayed as a tendency individuals may demonstrate to interpret an ambiguous situation as a threat or a menace and a source of discomfort (Budner, 1962; Campbell & Tesser, 1983; Kirton, 1981; MacDonald, 1970; Majid & Pragasam, 1997; McLain, 1993 cit in Grenier, Barrette & Ladouceur, 2005). According to Bhushan & Amal (1986), ambiguous situations involve novelty, complexity, unpredictability and uncertainty and individuals respond to these situations with a set of cognitive (rigidity), emotional (discomfort, disliking, anger or anxiety) and behavioral (rejection or withdrawal) reactions.

In what concerns IU, Grenier, Barrette & Ladouceur (2005) describe how, along the 1990’s, its definition suffered some changes. Freeston, Rhe’aume, Letarte, Dugas, & Ladouceur (1994, cit in Grenier, Barrette & Ladouceur, 2005) define IU as the way the individual perceives information in ambiguous situations and responds to that information with a set of reactions at a cognitive, emotional and behavioral level. Ladouceur et al. (1995, cit in Grenier, Barrette & Ladouceur, 2005) define it as the way the individual perceives information in an uncertain and ambiguous situation and manifests with a set of cognitive, emotional and behavioral reactions. In 2000, the same author (cit in Grenier, Barrette & Ladouceur, 2005), defines it as a predisposition to react negatively towards an event that may be considered uncertain, independently of the perceived probability and the associated consequences to that event. On the other hand, Dugas et al. (2001, cit in Grenier, Barrette & Ladouceur, 2005), define IU as the excessive tendency of an individual to consider as unacceptable a negative event to occur, even if its probability is small. In 2005, Dugas et al. (cit in Grenier, Barrette & Ladouceur, 2005), perceived it as an excessive tendency to consider that uncertain situations are stressors and perceived as upsetting, to believe that

unexpected events are negative in itself and, therefore, to be avoided, and to think that not being sure about the future isn't fair.

Consequently, we can confirm that the first definitions of IU were very similar to the ones of IA (Freeston et al., 1994; Ladouceur et al., 1995, cit in Grenier, Barrette & Ladouceur, 2005), and based on its conceptualization (Frenkel-Brunswik, 1948, 1949, cit in Grenier, Barrette & Ladouceur, 2005). However, the definition of IU of Dugas et al. (2005), clearly reflects an emotional state that is oriented to the future, which allows us to distinguish this concept from IA, which is defined as being directed to a situation of ambiguity that takes place in the present (Grenier, Barrette & Ladouceur, 2005).

Some of the main results in research on IU indicate that this concept has a unique contribution as a predictor of development of an excessive preoccupation (Dugas, Freeston & Ladouceur (1997). In fact, it seems to have a strong relation with the concept of "worry", and this relation doesn't seem to be explained by any other factors associated with worry, as anxiety or depression (Burh & Dugas, 2002).

Other research suggests that, in the face of uncertainty in the modern life, individuals turn to materialism as a means to deal with uncertainty when experiencing doubt about the self or by perceiving uncertainty in society as a form of anomie (Chang, LinChiat & Arkin, 2002). These results seem to support Peter Marris' (1996) thesis that describes that a sense of reduced power to control uncertainty is managed by the less favored through personal and social alienation, namely through consumption.

Method

Greco & Rogers (2001; 2002) developed and validated a scale that intends to assess coping styles towards uncertainty - the *Uncertainty Response Scale* (URS). The scale is composed by three factors, all of which demonstrate internal validity and high alpha coefficients, presenting adequate psychometric qualities. The three dimensions are:

- A) Emotional Uncertainty: the content of the items suggests that emotional uncertainty constitutes a style of non adaptive coping and the subjects would respond to uncertainty with anxiety and sadness. This means this dimension assesses individual differences in the way uncertainty is perceived as a stressor.
- B) Desire for change: these items reflect a desire for change which can be characterized as an enjoyment of uncertainty, novelty and change.
- C) Cognitive Uncertainty: this dimension intends to assess the need individuals have to plan the future ahead, to clarify and gather information as strategies to avoid ambiguity.

According to the authors, one of the factors that suggest implications in individual styles of coping with uncertainty is tolerance to ambiguity. However, up to the moment, the scales that assessed IA presented some problems from the psychometric point of view (low internal consistency). Consequently, the authors sought to integrate not only contributions from research in the area of IA, but also, results from research in the area of IU, trying to complement research in the area of uncertainty, creating a new assessment instrument that could overcome the psychometric problems from the instruments used until then.

We consider the psychological dimensions of the experience of uncertainty fundamental to understanding this concept and that is why the URS contribution will be significant in further studies. However, we believe that not only a psychological approach to this concept will be sufficient, but also a sociological, anthropological and political perspective would be necessary for the study of the way individuals perceive and cope with uncertainty, considering the individual consequences of nowadays' unequal distribution of power to control uncertainty (Marris, 1996).

Thus, the original contribute of the present research resides in an effort to develop a new pool of items, based on the theoretical perspective of Marris (1996), expecting to reflect some of the consequences of the new forms of uncertainty proposed by the author:

- The tendency to blame oneself for the wrongs of the world as a strategy to manage and control uncertainty – suspecting oneself as a less frightening alternative to seeing how the societies we live in are not trustworthy.
- “Annihilating the meanings of others in the interests of truth is a form of killing.” (Marris, 1996) – used as a form of power and subdue of the disfavored population;
- Individualism in societies as an origin of greater uncertainty, insecurity and competitiveness.
- Security as a consumption asset that can be created or destroyed in the process of its distribution.
- Self-defeating strategies of alienation or victim blaming as forms to cope with uncertainty.

So, this scale is related to the experience and perception of uncertainty in the social context in its psychological dimension. In other words, we're trying to understand how the psychological individual experiences and controls uncertainty and everything that is felt as unpredictable, ambiguous and contradictory in the contemporary social world; how he gives meaning to events in order to maintain a minimal and reasonable sense of predictability in relationships, and simultaneously preserves a sense of internal coherence and of external coherence regarding others and the world, within a cultural context in which you cannot ignore the effects of political devices of unequal distribution of insecurity and uncertainty.

As a result, with the adaptation and validation of the URS and with the creation of this scale, we intend to innovate methodologies in order to foster an integrated analysis of uncertainty following a framework that isn't limited to psychological vs social perspectives.

Both scales have a five-point Likert response format (between Almost Never and Always). The 48 items version of the URS and the 22 new items were administered to a sample of 1596 subjects, from which 708 were active professionals and 888 were Higher Education students. 1128 were female and 408 were men. Age ranges from 18 to 70 and the total mean age is 26, 98 (S.D. = 8, 66). Women's mean age is 26, 14 and men's 29, 02. Taking into account the subjects' activity, students' mean age is 23, 15, while professional's mean age is 31, 80.

Results

Regarding the URS, a factor analysis was performed and following a scree test a three-factor terminal solution was obtained by Varimax orthogonal rotation, as in its original version. Using an exclusion criterion of 0.50, from the 48 items, 39 loaded significantly on the three factors, and were distributed in the following structure: 15 on factor 1 (Emotional Uncertainty), 13 on factor 2 (Desire for Change) and 11 on factor 3 (Cognitive Uncertainty). All items loaded according to what was predicted in each original factor. Total variance explained reached 44,75% and regarding the Kaiser-Meyer-Olkin Measure of Sampling Adequacy the result was 0.94 and Bartlett's Test of Sphericity demonstrated $p=0.000$ significance.

Internal consistency for each factor was assessed by coefficient alpha and its results can be analysed in the table below.

Table 1: Internal Consistency Coefficient Alphas from URS (Greco & Rogers, 2001) and from the Portuguese Version.

Dimension/Factor	Internal Consistency Coefficient Alpha (n=505) (Greco & Rogers, 2001)	Internal Consistency Coefficient Alpha Portuguese Version (n=1596)	E.g. Items
Emotional Uncertainty	0,89	0,91	- I feel anxious when things are changing. - I get worried when a situation is uncertain.
Desire for change	0,90	0,88	- I find the prospect of change exciting and stimulating. - I like to think of a new experience in terms of a challenge.
Cognitive Uncertainty	0,85	0,84	- I try to have my life and career clearly mapped out. - I like things to be ordered and in place, both at work and at home.

In what concerns the new pool of items, a factor analysis was performed in the same way and following a scree test a three-factor terminal solution was obtained. Using an exclusion criterion of 0.50, from the 22 items, 10 loaded significantly on three different factors: 5 on factor 1, 3 on factor 2 and 2 on factor 3. Total variance explained reached 63,48% and regarding the Kaiser-Meyer-Olkin Measure of Sampling Adequacy the result was 0.83 and Bartlett's Test of Sphericity demonstrated $p=0.000$ significance.

Internal consistency in these three factors apparently reinforces the reliability of this pool of items.

Table 2: Internal Consistency Coefficient Alphas from the pool of items created.

Dimension/ Factor	Internal Consistency Coefficient Alpha (n=1596)	E.g. Items
F1	0,81	- Considering the characteristics of the work market today, I feel decision making is getting harder than before.
F2	0,72	- The way life is organized in the cities makes me think that I can't rely on others when I'm in trouble.
F3	0,65	- I believe I can control my future.

In what concerns the reliability of Factor 3, we took into account Pallant's (2001) contribute, considering that, although its Cronbach Alphas's value is below 0.7, since this is a small factor, the mean inter-item correlation must be considered. Therefore, we consider these results to be acceptable, given that the mean inter-item correlation is .48 and, thus, close to Briggs and Cheek's (1986 cit in Pallant 2001) recommended values (between .2 to .4).

Discussion

Although we still have not explored results in a more complex fashion, which we intent to do in the near future (e.g. correlating the results with macro systemic variables, "type" of subjects in terms of professional situation, etc.) and even though we still have not a confirmatory analysis of these results, we believe that the stability of the factorial structure of the URS Portuguese version (with strong and similar internal consistency coefficient alphas) is a good indicator of the test's validity in the assessment of coping strategies towards uncertainty in the Portuguese population.

Regarding the new pool of items that were developed based on Peter Marris' (1996) contribute, an analysis of the items organization suggests that three possible psychological meanings of the new forms of uncertainty proposed by Marris loaded more significantly. In fact, although we could identify different areas in these 22 items, our objective was to somehow reflect some of the individual psychological consequences of a perception of uncertainty in the social context. Therefore, given the complexity of some of these theoretical formulations, only 10 items loaded significantly and in a logical three factor arrangement.

From what we expected, the first factor could be viewed as related to security as a consumption asset that can be created or destroyed in the process of its distribution, reflecting people's preoccupation with matters of employment and world changes' consequences in this area. The second factor seems to reflect a possible form of individualism in societies as an origin of greater uncertainty, insecurity and competitiveness in relationships. Apparently the third factor clashes with the previous, conveying a sense of resilience when facing uncertainty.

On the other hand, we consider significant the fact that these 3 factors have good or acceptable internal consistency coefficient alphas if we take into consideration the number of items per factor. Hence, we believe this scale to be promising given that it allows us to assess, not only perception of uncertainty in the social context but a sense of the impact it may have

on individuals in some areas of their life. Therefore, this three factor solution could be amplified in future researches in order to strengthen its psychometric qualities and internal consistency.

As previously stated, we are still exploring these data in order to achieve two other objectives: to analyze the role, importance and psychological determinants of the experience of uncertainty in different groups in the population (e.g.: youngster, young adults, adults) and to study the psychological antecedents and consequents of the experience of uncertainty. This will allow us to test more significantly both tests psychometric qualities.

To sum up, to fully comprehend and reflect on the new forms of uncertainty in contemporary life, we must articulate psychological dimensions of the experience of uncertainty (to which we expect that the URS will attend) and an introduction of sociological, anthropological and political dimensions so we can understand how individuals perceive and cope with uncertainty in a complex and integrated fashion, taking into account the consequences of an unequal distribution of power to control and manage this uncertainty (Marris, 1996) , to which we expect this new pool of items to attend.

Therefore, with the adaptation and validation of the URS and the development of a new scale we intend to foster a more complex and integrated study in order to understand the interaction between psychological and sociological perspectives in the genesis of experiences regarding situations that are nowadays lived and defined as uncertain, incontrollable, unpredictable, undetermined and even insecure, all making possible to limit individuals' and communities' actions to, autonomously, influence their present and future.

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