Individual Differences in Attitudes Towards Uncertainty and Basic Motivation

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Introduction

An intolerant person was described as having black-or-white thinking, being avoidant of uncertainty, and even undertaking aggressive attempts to "fight" things that can be considered novel or unusual (Frenkel-Brunswick, 1949; Budner, 1962). The description represented the negative pole on a single continuum of intolerance/tolerance for uncertainty, with the opposite characteristics describing individuals who can be considered to be tolerant to uncertainty. Since the middle of the XX century significant changes were brought on to a multitude of life domains: the pervasive and rapid increase in the total amount of available information, cross-cultural interactions in the context of globalization has underscored the necessity for studying attitudes towards uncertainty given the sheer number of opportunities for facing uncertainty in the modern world. These considerations suggest that **tolerance/ intolerance for uncertainty might not necessarily be a "domain-general" unidimensional trait**.

The foundation of our investigation is the set of empirical findings recently reported by Kornilova and colleagues (2010): they showed that **the trait of tolerance/intolerance for uncertainty is best conceptualized as having at least two dimensions** manifesting in two latent variables – one of intolerance for uncertainty and one of acceptance of uncertainty.

The **main aim** of our study was **to examine the psychological texture of attitudes towards uncertainty and its relations with basic motivation**. We suggested that individual differences in attitudes towards uncertainty are related with the characterization of the nature of uncertainty's source: **environment** as external circumstances that are personally uncontrolled and other **people's actions**, particularly in interpersonal relationships.

Methods

The dimensionality of tolerance/intolerance for uncertainty:

438 undergraduate students (psychology majors) attending Lomonosov Moscow State University (83 men; the age ranged from 17 to 46 years, M = 20.4, SD = 3.6)

Questionnaires to measure tolerance/intolerance to uncertainty and associated traits:

- New Questionnaire for Tolerance to Uncertainty (NTN; Kornilova, 2010). NTN is a questionnaire that measures three related traits: general tolerance for uncertainty, general intolerance for uncertainty, and interpersonal intolerance for uncertainty.
- Multiple Stimulus Types Ambiguity Tolerance-I (MSTAT-I) (McLain, 1993). MSTAT-I is a brief questionnaire that measures general tolerance for uncertainty.
- Personal Factors of Decision Making (LFR; Kornilova, 2003). LFR is a personality questionnaire that is aimed at measuring risk readiness and rationality (defined as information seeking).

The relationships with basic motivation:

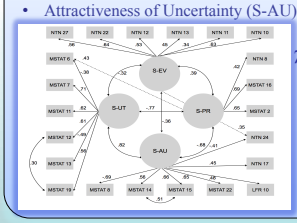
191 undergraduate students (psychology majors) attending Lomonosov Moscow State University (31 men; the age ranged from 17 to 26 years, *M* = 19.2, *SD* = 1.1)

- Edwards Personal Preference Schedule (EPPS; Edwards, 1959; Kornilova, 1997)

4-component model

22 items were selected from the pool of 76 items from 3 questionnaires to represent 4 factors:

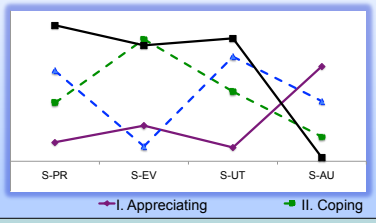
- Expectations about personal relationships (S-PR)
- Expectations about the environment (S-EV)
- Uncertainty as a Threat (S-UT)
- Attractiveness of Uncertainty (S-AU)

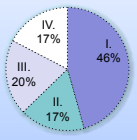


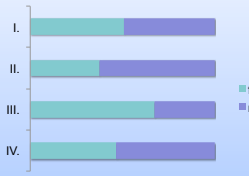
Model fit:
$\chi 2\ (199) = 402.28$
$(p < .001)$
CFI = .92
RMSEA = .048
SRMR = .05

Latent profile analysis

Testing the fit of a total of 100 different models that differed in the number of latent profiles (from 1 to 10) and other parameters showed that the best fit was obtained for the 4-profile solution (the highest BIC value): the participants in the study can be classified as having one of the four presumably stable latent profiles of attitudes towards uncertainty.







I. Appreciating II. Coping III. Ambivalent IV. Fearing

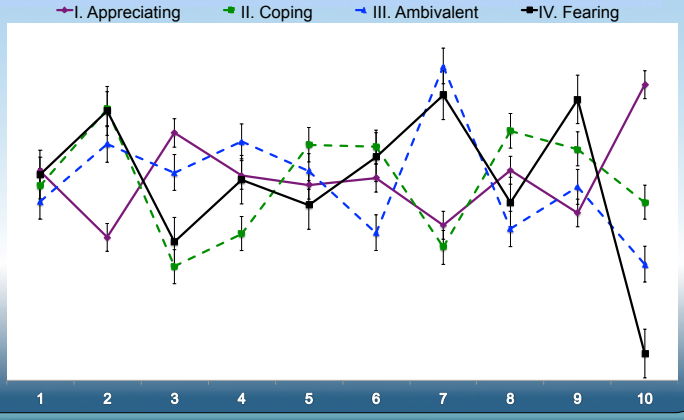
Relationships with Basic Motivation

Edwards' (1959) Personal Preference Schedule

	p (I)	p (II)	p (III)	p (IV)	ANOVA
Achievement (1)	,03	-,03	-,06	,041	
Order (2)	**-.30****	**.16***	,10	**.16***	**F=4.65 (p=.00)**
Autonomy (3)	**.22****	**-.19****	-,00	-,13	**F=3.93 (p=.01)**
Self-knowledge (4)	,02	-,12	,08	,00	
Intraception (5)	,00	,04	,02	-,06	
Dominance (6)	-,04	,13	-,11	,05	
Abasement (7)	**-.22****	-,10	**.27****	,13	**F=7.35 (p=.00)**
Endurance (8)	,08	,09	**-.14***	-,05	
Aggression (9)	**-.14***	,03	,03	**.14***	
Readiness for Decision Making (10)	**.47****	-,08	**-.21****	**-.37****	**F=17.25 (p=.00)**

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)



Discussion

Findings are corresponded with the idea that interactions with uncertainty could be assumed as primary motives that can lead to different secondary motives and goal-related behaviors (Kagan, 1972; Chumakova & Kornilov, 2013):

"Appreciative" (I): low desire for clarity, uncertainty is attractive and doesn't threat, low Order and Abasement, high Autonomy and Readiness for Decision Making (RDM) ("tolerant" person).

"Coping" (II): strong desire for clarity of the environment (not relationships), uncertainty is not either attractive or threatening, low Abasement (like the I profile) and high RDM.

"Ambivalent" (III): high desire for predictability in relationships (not the environment), uncertainty is simultaneously attractive and threatening, high Order (like the IV profile) and high Autonomy (like the I profile), low RDM.

"Fearing" (IV): high expectations for clarity, uncertainty is threating, high Order and Abasement, low Autonomy and RDM, high Aggression (classical "intolerant" person).

Conclusions

① We verified the hypothesis of the multidimensionality of attitudes towards uncertainty.

② We revealed the existence of 4 different profiles of attitudes towards uncertainty: a general profile of the tolerant person and three distinct profiles of an intolerant person that differed with respect to different sources of uncertainty and subjective evaluations of uncertainty.

③ These profiles also demonstrate significant differences in components of basic motivation.

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