MEASURING IMPLICIT THEORIES AND CONCEPTIONS OF MORALITY. CONCEPTUAL AND EMPIRICAL CHALLENGES

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Abstract: In the present study we explored the psychometric properties of two scales measuring implicit theories about the malleability of moral character and duty- versus rights-based conceptions of morality (adapted from Chiu, Dweck, Tong, & Fu, 1997) on a Romanian population (N=165). We explored the associations between these scales and liberalism, measured using the homonymous Big Five Plus subscale (Constantin et al., 2010) and implicit trait theories, reflecting the degree to which subjects hold implicit beliefs regarding the traitedness of behavior, referring to the possibility to predict individuals' conduct based on traits and the belief that personality descriptors are stable and can be inferred from few instances (measured with the Personality Beliefs Inventory, Church et al., 2003). In line with previous results, the present data indicate that trait personality theories seem to be positively associated to the tendency to regard moral attributes as fixed and negatively related to liberalism. Dynamic theories of morality correlated with the tendency to prefer and endorse rights-based rather than duty-based or system-oriented moral beliefs. In the light of personality and socio-cognitive models of moral behavior, the paper also raises questions about the implications and adequacy of the implicit theories model in the moral domain. We suggest a more refined understanding of the concept, the attached empirical methods and applications of the constructs.

Keywords: implicit theories of morality, conceptions of morality, lay dispositionism, liberalism.

Introduction

Lay thinking in the moral domain, as described by recent studies in social psychology and experimental philosophy seems to be flexible, to the point of unreliability, since people tend to endorse conflicting beliefs of the same reality and opportunistic, self-serving (Aquino & Freeman, 2009; Monin & Jordan, 2009). Some studies attempt to describe the sources of disagreements regarding moral concepts and how these orient motivation and practices (Rai & Fiske, 2011). A series of studies attempt to elucidate how people conceptualize moral actions, intentions, responsibility and character traits (Chiu, Dweck, Tong, & Fu, 1997; Dweck, Chiu, & Hong, 1995; Miller, Burgoon, & Hall, 2007). One area that remains problematic even in the explicit or academic approach of morality regards the views on character traits, which can be seen either stable and immutable or, as dynamic, fluid and subjected to change. Another parallel and relevant debate is that between situationists, who claim that morally amendable actions cannot be inferred, explained and predicted on basis of traits (Doris, 2002; Alfano, 2013) and dispositionists, who invoke a virtue ethics based view of moral conduct that allow traits their independence and causal and explanatory quality in the domain of ethical behavior that can be described in terms of virtues or strengths (Seligman & Peterson, 2004). These habitual responses or dispositions can be viewed as shapeable, educable aspects of the human personality. Situated between the two views, social cognitive personality models advocate the necessity of conceptualizing dispositional dimensions of character, proposing a model in which dispositions are translated as cognitive schemas that carry the vehicle of what could be construed as traits (Narvaez & Lapsley, 2009). Solving the dispositionism/ situationism debate has high stakes for moral psychology but also for the personality domain. Some

authors argue that the appeal of traits is tributary to the fact that lay people are intuitive virtue ethicists (Harman, 1999). The study area of implicit theories of morality and conceptions of moral behavior address these questions and, ironically, its preliminary results reveal a similar confrontation of perspectives. In other words, lay theories in the domain of morality are as fragmented and disputed both regarding the possibility of making descriptive inferences based on traits and the normative ones (here, the debate is between particularists and generalist, regarding the possibility of defining somebody as a virtuous person and on what grounds). To diagnose these two alternative perspectives, Chiu, Dweck, Tong, and Fu (1997), proposed a model of how lay people conceptualized morality. For the authors the approach consisted in applying and adapting a methodology that proved fruitful in the area of abilities.

Description of the Implicit theories measure

The instrument was developed by Dweck, Chiu, and Hong, 1995, who after more years of research in the area of implicit theories decided to embed the model to the moral domain, applying the same, already used principles of constructing the items depicting theories of intelligence (originally designed in a study by Dweck and Henderson, 1988), in order to categorize the subjects as either entity or incremental theorists.

According to the authors, the scale can be used to accurately capture the orientation of people regarding their preferred way of interpreting the traits. The initial scale was bi-dimensional, tapping entity statements and also incremental ones. Each of the items were answered on a 6 points Likert scale ranging from *1 (very strongly disagree)* to *6 (very strongly agree)*. We reversed the scale proposed by the original authors, in which 1 was *very strongly agree*, because all the other scales had the responses on this format.

In the next section we present the process of translating and adapting the implicit theories of morality scale. Following these data presentation, we will make some suggestions regarding the appropriateness of the scale in the corresponding model, especially from the perspective of adapting measures that address culturally sensitive aspects, such as conceptions of morality.

The present research

In this study we verify the reliability and factorial invariance of a scale measuring implicit theories of morality and conceptions of morality. We also explore the relations between implicit theories of morality and moral conceptions, implicit trait theories and the liberalism facet of openness to experience. We used this scale for liberalism, since it taps into the corresponding dimension from the Five Factor Model, using a questionnaire developed in the Romanian context. We avoided using scales measuring liberalism constructed in American or Western European contexts, where these concepts have also particular contents and meaning, not the simple orientation towards liberal or conservative views.

Method
Participants and procedure

In order to further explore the psychometric properties referring to construct validity, the translated Implicit theories scales were applied on a sample of 165 students. Almost half

of the participants were students in Humanities (enrolled in the Faculty of Psychology and Education Sciences, Philosophy, History at "Alexandru Ioan Cuza" University form Iaşi, Romania), and 53,4% were students and other technical faculties, such as Automatic Control and Computer Engineering from Iaşi Technical University (from which, 54.2% were male; mean age=20.44; SD=2.03). The questionnaires were completed in group administration sessions (20-30 people at a time), each session lasting 10 to 20 minutes. Participation in the research was voluntary and anonymous.

Instruments

We used the measure employed by Chiu et al. (1997) designed to measure implicit theories of morality. This scale is composed of 6 items – The author's previous research indicates that the scales are reliable and valid, reflecting the two alternative orientations tapped by the theories. Three of the items refer to entity type of theory, containing affirmations that show that character cannot be molded and changed (e.g. "A person's moral character is something very basic about them and it can't be changed much."). The other three reflect incremental beliefs, because tap the idea that character can be shaped or cultivated ("The basic moral characteristic of a person can be changed significantly, no matter who this person is."). In the research conducted by Chiu et al (1997) study, the authors maintained that pilot studies and the results obtained by Levy and Dweck (1997) are demonstrating that agreement with entity items is concomitant with disagreement with the incremental ones and decided to eliminate the incremental ones. However, given the fact that this study is employed in a culturally different context, we chose to retain both types of measures.

The original scales was translated and culturally adapted, a process that included translation and a blind back translation, in order to obtain the conceptual equivalence in Romanian. After comparing the two versions, a group of experts, both psychology researchers and language professionals decided if the translation was acceptable and reached consensus on the existing discrepancies over semantic or idiomatic equivalence.

Moral beliefs (adapted from Chiu et al, 1997) were assessed with four statements that were assessing the extent to which participants endorse duty-based or rights based convictions. Each of four statements reflected violations of duties (norms and role expectations, equity and laws), respectively of rights (equal opportunity, individual rights) and participants were asked to choose the choice with which they disagreed more. The four items were pitted one against others and six forced-choice combinations resulted.

Personality Beliefs Inventory (Church et al., 2003) is a scale that measures implicit trait theories, that contrasts two types of orientations: contextual beliefs and trait beliefs. Some of the traits mention specific traits, selected from all the Big Five domains, while others refer to personality in general. The two dimensions can be refined and decomposed on five different dimensions: longitudinal stability (e.g. "People who are quite industrious when they are students, will probably be quite industrious in their jobs as adults."), cross-situational consistency (e.g. "If a person is generally hardworking and responsible at school, the person is probably hardworking and responsible at work as well."), predictive validity (e.g. "How hard a person works on the job depends a lot on the person's personality characteristics."), trait inference (e.g. "If I saw a person return some lost money to its owner, I would probably

conclude that the person is an honest person in general."). The items have an answer scale of Likert type, with answers ranging from *Strongly Disagree (1)* to *Strongly Agree (6)*. However, on the sub-factors, the scale shows low internal consistency, so we decided to use only the composite scales for the two major orientations: trait-based view and contextual view.

The Big Five©plus Inventory (Constantin et al, 2010) is a standardized personality assessment tool, built after the Five Factor model (Goldberg, 1999), offering a comprehensive and detailed personality profile, controlling for social desirability. The Big Five©plus Inventory taps all the 5 meta-factors of personality described by the model (extraversion, agreeableness, neuroticism, conscientiousness and openness) and of the 30 facets of personality, with six facets subsumed to the main factors. For the purpose of the current study, we selected only the *Liberalism* subscale from the *Openness to Experience* dimension. People who score highly on liberalism tend to challenge authority and conventions, and do not adhere automatically to the traditional values. They often regard society we live in as being too conservative, social norms as restrictive, are dedicated to the idea of adapting and modernizing society in the service of defending and promoting human rights and consider that the excessive respect for authority will have a negative effect on the future of society and its individuals. These people believe that the state's role is to ensure individual freedoms and they consider laws too harsh and restrictive. Items provide a forced choice between two equally desirable descriptions, one covering liberalism, and the other authoritarianism, as personality dispositions.

Results analysis
a. Reliability of the theory measures

In this study, the internal consistency of the incremental scale was high, such as other indices of homogeneity (inter-item correlations – see table 1, items 4, 5 and 6). Alpha Cronbach coefficient for the incremental items was 0.790 and for the entity items was 0.609. The latter value is lower, but still acceptable for short scales. Also, the homogeneity of the entity items was lower. Also, as means, standard deviations and medians show, the respondents tended to agree more with the entity than the incremental items. Unlike the evidence described by the authors of the scale, the incremental items did not proved to be compelling.

Table 1. *Descriptive Statistics and Intercorrelations between the items*

	1	2	3	4	5	6
1	1					
2	.363**	1				
3	.328**	.342**	1			
4	-.092	-.198*	-.191*	1		
5	-.152	-.284**	-.259**	.533**	1	
6	-.199*	-.261**	-.264**	.497**	.647**	1
Mean	4.27	4.16	3.64	3	3.27	3.36
SD	1.25	1.27	1.46	1.43	1.32	1.36

Median	4	4	4	3	3	3
Skewness	-.531	-.421	-.132	.354	-.02	.066
Kurtosis	-.203	-.242	-.833	-.669	-.797	-.834

The scales are characterized by high internal consistency, Alpha Cronbach coefficients are presented in Table 2. The composite scores are also negatively correlated (r=-0.336) but only to a moderate degree, unlike the evidence provided by the original authors.

b. Factorial structure

An exploratory factor analysis was conducted, using varimax rotation. In order to determine the optimal number of factors, we employed Horn's (1965) parallel analysis and identified a two factor solution for the exploratory factor analysis model (Hayton, Allen, & Scarpello, 2004). As indicated in Table 2, a two factor solution emerged, with loadings ranging from .695 to .850. The sample selection adequacy measurement demonstrated good fit of the data to EFA (KMO measure = 0,747, Bartlett's Test of Sphericity Chi² (15)=226.35, p<.001.). The items load as expected in two hypothesized factors, as the original scale, corresponding to the negative items (entity items) and those corresponding to the positively formulated items (measuring incrementality).

Table 2. *Results of Exploratory Factor Analyses*

	Communality	entity	incremental
Item 1	.629	.793	
Item 2	.561	.723	
Item 3	.520	.695	
Item 4	.653		.807
Item 5	.753		.850
Item 6	.717		.821
Percentage of variance explained (%)		20.82	43.07
Alpha Cronbach		.609	.790

Given the independence of the measures, we constituted an index for entity theories of morality and one for incremental theories and treated the scores as continuous variables. The following table presents the simple Pearson correlations between the variables used for convergent validation. The means, standard deviations and correlations with the other scales are presented in Table 1; the main diagonal displays the Cronbach Alpha's for the scales included in the study. Generally, those endorsing the rights belief scored higher on incremental theories than those who endorsed duty beliefs; conversely, the choice of duty based assertions reflected higher scores on entity theories. However, of the six items, only one correlated with one of the implicit theories scales. Namely, the choice for the rights-based response correlated with the incremental scores, the Mann Whitney showing statistically significant differences (*U*= 2465.5, *Z* = -2.39, *p*=0.016).

Table 3. *Descriptive Statistics, Scales Consistencies and Intercorrelations with Personality Beliefs, and Liberalism*

Scale	M	SD	1	2	3	4
1. Entity theories	4.02	0.99	1			
2. Incremental theories	3.21	1.15	-.361**	1		
3. Implicit contextual beliefs (PBI)	4.15	0.56	.126*	.114	1	
4. Implicit trait beliefs (PBI)	4.28	0.53	.265**	.066	.524**	1
5. Liberalism	1.48	0.16	.031	.001	-.146	-.211**

The pattern of results contained on Table 3, based on Spearman correlations, indicate that the measures for entity and incremental beliefs of morality are not overlapping, although they correlate to a moderate extent and thus require their separate treatment, at least in the Romanian context. Also, the entity measure applied to moral character is associated positively with both contextual beliefs and trait or dispositional beliefs in the broader domain of personality; however, incremental theory measure does not correlate with either.

Implicit theories of morality and conceptions of morality scales showed interesting associations with several related measures and the factorial structure of the items indicated that there might be two different contents. As expected, the measures of entity theories of morality correlate with dispositional views of personality, the latter correlated with liberalism. Liberalism, however, was not associated with either of the two facets of implicit measures.

This may be due to the fact that items tapping entity theories are more related to changeability or stability of character traits, while the other to educability or the possibility of shaping the nature of character traits. Although the reliability is fair, however, there are some conceptual and methodological issues that surround the implicit theories measure.

Discussion

The empirical and theoretical distinction between the idea of stability of traits, including innateness and rigidity in developing them and the idea of educability is important and has to be subjected to more empirical testing. As already stated, implicit theories of morality model has been imported from the study on intelligence, learning and other ability-related constructs, where it provided interesting results regarding the connection between the way in which people construe traits and their motivations and performance in that specific, trait-related domain. Nevertheless, the moral domain contains a series of particularities that have been ignored by the authors of these measures. First, unlike intelligence, wisdom or creativity, which are inherently defined and valued as positive, adaptive and desirable aspects of the person, morally relevant traits and concepts have embedded a valence, and are translated in lay language either as virtues and vices and incrementality can function in both morally blameworthy and praiseworthy directions. Also, moral traits and behaviors show

great variability in judging what and when counts as moral, as the data on lay moral disagreement attest (Meindl & Graham, 2013) and this aspect make the items more vulnerable to personal interpretation of respondents. In this study we attempted a verification of the psychometric properties of the scale originally designed by Chiu et al (1997), with the double aim of obtaining an equivalent measure for the Romanian population and exploring whether these measures correlate with situational or contextualist views of moral traits. For future investigations, we intend to propose more subtle measures of character that distinguish between the moral valences of the assumed traits and also, between several ways in which the principle of malleability could be unfolded.

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