

International and Cultural Psychology  
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*Editors*

# Psychological Aspects of Social Axioms

Understanding Global Belief Systems

 Springer

## International and Cultural Psychology

K. Leung

M.H. Bond

Editors

### Psychological Aspects of Social Axioms

Understanding Global Belief Systems

*„This work provides ways to characterize cultures, and gives researchers a set of lenses for looking at cultures. When researchers know what people value and how they use the axioms, they can predict what people will do in their cultural niche – how they are likely to interact with each other, how they are likely to relate to outsiders, how they are going to react to their jobs, what emotions they are likely to feel in different circumstances, and how are they going to deal with conflict.“*

HARRY C. TRIANDIS,

PROFESSOR EMERITUS OF PSYCHOLOGY, UNIVERSITY OF ILLINOIS, U.S.A.

Positive and negative beliefs about human nature and the social world, the role of fate in life events, and the belief in the existence of a supreme being: social axioms as general beliefs exist both explicitly and implicitly in cultural values and traditions the world over. In *Psychological Aspects of Social Axioms*, an international team of researchers brings new depth to the study of these culture-bound belief systems as they inform interpersonal and organizational behavior, are passed from parents to children and sustained by social institutions, and contribute to both national character and individual personality.

The editors offer an insightful introduction to the social axiom framework and its basic issues, introducing studies from a variety of countries that explore the influence of these widespread beliefs as humans solve problems, pursue goals, and make sense of their lives.

A sampling of the topics:

- Transmission of social axioms during times of social change (Germany, Spain).
- Social axioms and behavior of college students (India, Indonesia).
- Relationships between axioms and locus of control (Italy, Greece).
- Proactive coping in Christians and Muslims.
- Cynicism in romantic and political relationships.
- Social axioms in the U.S.: ethnic and geographic studies.

With its groundbreaking constructs for intercultural understanding, *Psychological Aspects of Social Axioms* will find a wide and interested audience in cultural and clinical psychologists, cross-cultural trainers and educators. The book will also provide upper-level students in psychology and cultural studies with new directions for future research.

*Psychology*

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# Social Axioms in Greece: Etic and Emic Dimensions and their Relationships with Locus of Control

Aikaterini Gari, Penny Panagiotopoulou, and Kostas Mylonas

**Abstract** Two studies investigated emic and etic aspects of social axioms and their correlates. In Study 1, an exploratory factor analysis with Greek university students revealed five factors resembling the original structure presented by Leung and Bond (2004). There were also indications for a sixth factor comprising of some Reward for Application items and some Social Cynicism items, reflecting stereotypic beliefs about justice and success and the “just world” belief. Based on a Procrustean rotated solution, five salient factors were identified and they were also in line with the original structure. A “hit matrix” (Georgas & Mylonas, 2006) containing all possible Tucker  $\Phi$  comparisons among the factor solutions for six countries—including Greece— supported factor equivalence. However, discrepancies were present for specific factors or specific countries, implying a possible need for emic items. This was attempted in Study 2, with 558 Greek students and 20 additional items for examining a culturally Greek approach to social axioms. The five social axiom dimensions were verified afresh, but an additional culture-specific factor of Social Cynicism stressing competition in human relations emerged. These six social axiom factors were correlated with locus of control. Based on canonical correlation functions, Religiosity and Social Cynicism were correlated, as expected, with External Locus of Control, and Reward for Application was correlated with Internal Locus of Control. These correlations were further supported by discriminant function analyses, with an additional link between Fate Control and External Locus of Control.

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## **Beliefs, Values, and Attitudes as Components of a Belief System**

“An adult probably has incorporated tens or hundreds of thousands of beliefs, thousands of attitudes, but only dozens of values” (Rokeach, 1968, p. 124). Attitudes, as “relatively enduring organization of beliefs that prepare individuals to live in appropriate ways” within a certain society (Rokeach, 1968), are classified according to various dimensions, such as the specific characteristics of their position within one’s belief system, e.g., “central” versus “peripheral attitudes,” or “more important” versus “less important attitudes,” or their inner organization consisting of various opinions and subbeliefs or the degree of their differentiation and complexity (Rokeach, 1968).

Within one’s belief system, which contains ideologies, faiths, values, opinions, and attitudes, values are desirable, abstract goals that apply across a wide range of situations. They express what people believe they “ought” to or “should” do, in terms of the salient social rules and norms (Kluckhohn, 1951), thereby composing a belief system substructure which is hierarchically organized in terms of the importance of each value separately or of the importance of groups of values. (Rokeach, 1968, 1973, 1979). Thus, values serve as guiding principles in people’s lives for action, justification, and events evaluation (Rokeach, 1973; Schwartz, 1992).

The total number of general beliefs, organized into architectural systems within an individuals’ belief system, has describable and measurable structural properties, in terms of the central–peripheral role within one’s belief system, the resistance to change, their influence on the rest of the belief system components, and their role in determining one’s behavior (Rokeach, 1968, p. 7–11). Along a central–peripheral continuum, Rokeach classified five classes of beliefs: the “primitive, pro-ideological beliefs that are socially shared,” the “primitive beliefs that are not socially shared,” the “authority beliefs” that refer to positive or negative authorities or reference persons or groups, the “derived beliefs” from authoritative sources, and the “inconsequential beliefs” that refer to arbitrary matters of taste. “The innermost core of belief system” (1968, p. 6) consists of some basic premises, regardless of the degree of social consensus they require, on physical and social reality, and the nature of self and others.

The relation between the different types of general beliefs and values and what is their association with personality traits, attitudes, and specific behaviors is of particular importance. Correlations of the Schwartz 10 value types with a variety of variables revealed associations with age, gender, education (background variables), religiosity, political orientation (types of attitudes), autocratic behavior in interpersonal relationships (personality), as well as with orientation of one’s studies, and consumer behavior, such as the use of mobile telephones and alcohol consumption (specific behaviors) (Schwartz et al., 2001).

Schwartz’s project on values has demonstrated and validated the universality of 10 value types across a wide range of cultures: Stimulation, Self-Direction, Universalism, Benevolence, Conformity, Tradition, Security, Power, Achievement,

and Hedonism. At the individual level of analysis, this theory of values proposed the idea that people within different cultures, rather than nations, develop a common set of value types. The theory verified the distinctiveness of the 10 value types and that this value structure is applicable in a very wide range of samples—representative national ones, school teachers, university students, adolescents, and samples of workers. Although some studies with the Schwartz Value Survey (SVS) demonstrated the unsuitability of the SVS instrument for less educated, non-Western populations (Schwartz et al., 2001), it has been verified that this value theory is not dependent on method of measurement and it is robust to individuals' gender, age, and level of education (Schwartz, 1992, 1994; Schwartz & Bardi, 2001; Schwartz & Boehnke, 2004).

### **Values, Attitudes, and Social Axioms as Behavioral Predictors**

Social axioms are defined as general beliefs or basic premises that are used as guidelines for people's behavior in various situations. They seem to reflect pancultural human difficulties that people deal with and as a result constitute universal types of beliefs that individuals endorse, to varying degrees, within and across diverse cultural settings (Bond, Leung, Au, Tong, & Chemonges-Nielson, 2004; Leung et al., 2002; Leung & Bond, 2004). Social axioms and their five dimensions—Social Complexity, Religiosity, Social Cynicism, Fate Control, and Reward for Application—seem to be the “core etics” of general beliefs that are universalistic. Rokeach's primitive, proideological beliefs, socially shared or not (1968) could be regarded as the “ancestors” of social axioms in the international literature of social psychology.

In formal logic an “axiom” is “A statement for which no proof is required and which, thus occurs as a premise of many arguments, but as a conclusion of none” (The Pan Books Dictionary of Philosophy, 1979, p. 32). An axiom may be accorded this status either because it is held to be a self-evident truth (i.e., axioms of Euclidean geometry), or to contribute with other axioms to such a definition of truth (The Pan Books Dictionary of Philosophy, 1979, p. 32). The “axiomatic characteristic” of social axioms consists in their being true to one's personal experiences, but not as a consequence of any procedures of scientific validation (Leung et al., 2002). Such a characteristic also makes social axioms quite similar to “faiths ... that refer to beliefs accepted by an individual as true, good and desirable, regardless of social consensus or objective evidence perceived as irrelevant” (Rokeach, 1968, p. 125).

The five universal dimensions of social axioms are not “attitudes,” as attitudes have explicit evaluative components (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975; Triandis, 1977). On the contrary, social axioms play an organizing role for the cognitive system of an individual and are related to a variety of social behaviors across cultures. They also seem to augment attitudes' predictive power for behavior, an output that has been recently demonstrated for political attitudes

(Keung & Bond, 2002). The main common ground between attitudes (Katz, 1960) and social axioms is at the functional level, as social axioms promote the same functions as attitudes: the instrumental function, the ego-defensive, the value-expressive and the cognitive organization of the world functions (Leung et al., 2002).

Additionally, social axioms, unlike values, are general, abstract guiding beliefs that deal with human survival and effective functioning in specific social and physical environments (Leung et al., 2002). The link between an individual's specific everyday functioning, "behavioral tendencies" or "predispositions" and values has been demonstrated to be restricted mainly to associations with styles of conflict resolution, vocational choice, and coping styles (Bond et al., 2004; Morris et al., 1998; O' Connor & Shimizu, 2002; Sagiv, 2002). The 10 value types of Schwartz's circular value structure were strongly associated with voting behavior (Barnea & Schwartz, 1998) and with macroworries (i.e., worries about environment, drug addiction, or crime increase), but were not associated with specific life goals, leaving room for other individual differences to exercise their influence (Schwartz, Sagiv, & Boehnke, 2000). A meta-analytic review with 21 samples from 15 countries found that in Greece there is an extremely low positive association between Religiosity and Benevolence, along with a negative association between Religiosity and Universalism, a finding that also appeared in other European Mediterranean countries, i.e., Italy, Spain, and Portugal, and in Turkey and Israel (Saroglou, Delpierre, & Dernelle, 2003). In another study with a sample of Greek students, value priorities—*theoretical, economic, aesthetic, social, political, religious values*—along with an "emic set" of ten traditional educational values—seemed to be related to political and religious group membership (Gari, Mylonas, & Karagianni, 2005).

The above moderate or weak link between values or value priorities with specific life strategies, goals, and behaviors, which seems to be a common finding of many attempts to predict behavior (Feather & O'Brien, 1987), has stimulated researchers to study general beliefs in an attempt to explain cross-cultural differences and similarities in individual behaviors (Leung, Bond, & Schwartz, 1995). Social axiom dimensions as general, axiomatic beliefs (Leung et al., 2002) do not overlap much with values, as the correlations between them are mostly low but in a meaningful and interpretable manner; they thus represent two distinct types of construct (Leung et al., 2007). However, social axioms seem to add to the predictive power of what is provided by values in regard to an individual's behavior (Bond et al., 2004). For instance, Reward for Application seems to be related to the choice of conventional jobs that contain routine tasks and to a reconciling conflict resolution; Religiosity is related to a reconciling and, paradoxically, competitive approach to conflict resolution; Social Cynicism is related negatively to cooperation and compromising in resolving conflicts; Social Complexity is associated with collaboration and reconciliation in resolving conflicts (Bond et al., 2004; Leung et al., 2002).

What people believe about the world in general, their expectancies for various outcomes, and the way they understand forces of control over their actions seem to influence their decision making as well as the way they handle stressful encounters. According to Folkman and Lazarus (1980), the types of behavior a person performs to deal with stressful situations, the demands of which one perceives as above



her/his capabilities or strength, can follow either problem-focused or emotion-focused strategies. Previous studies have correlated the five dimensions of social axioms with coping strategies, locus of control, and other behavioral correlates. Fate Control has been related to the “wishful thinking” coping style, while Social Complexity was associated with a problem-solving coping style (Bond et al., 2004; Leung et al., 2002).

In a previous Greek research project (Gari, Panagiotopoulou, & Lyberopoulou, 2006), an effort was made to identify correlations between the five axiom dimensions and various coping strategies (problem-focused coping, distancing, wishful thinking, social support, aggressive problem solving). A sample of 192 individuals (students of social sciences and adults working at insurance companies) aged 18–30 years filled out the 82-item questionnaire version of the Social Axioms Survey (SAS) (Leung et al., 2002) and the Folkman and Lazarus (1980) questionnaire of coping strategies (in its Greek form, Karademas, 1998). Pearson correlations between coping strategies and social axioms along with other correlational techniques indicated significant relations of coping strategies with social axioms. Social Complexity was correlated with problem solving strategies ( $r=0.38$ ); Fate Control was correlated with wishful thinking ( $r=0.40$ ), and with distancing ( $r=0.30$ ); Religiosity and Social Cynicism did not correlate with any of the coping strategies. The findings regarding Fate Control and Social Complexity were in line with results from previous surveys (Bond et al., 2004; Safdar, Lewis, & Daneshpour, 2006).

## Study 1

The aim of Study 1 was to investigate the social axioms factor structure at the individual level of analysis in Greece. The initial exploratory models (principal components analysis and orthogonal rotation solution) tested for the presence of five factors in the Greek data set of 371 Greek students, collected along with the initial data set for the cross-cultural comparison among 40 cultures using the 60-item SAS version (Leung & Bond, 2004).

The initial outcomes were rather unpromising with factors not clearly identifiable and with the indication of a sixth factor in the structure. A large amount of the error variance in these analyses was due to ceiling/floor effects present for the Social Complexity and the Social Cynicism items for Greece. Therefore, items with extreme skewness were transformed. Either squared values transformations or square root transformations were initially applied to these items. The transformed scores were then transformed back to the original SAS scoring scale, through the calculation of their  $z$ -scores, followed by a scaling transformation. Then, factor analysis was recomputed on the transformed values and the remaining original score values for all the 60 items.

The outcomes for this analysis of the Greek data were much clearer for at least two of the five factors: Fate Control and Religiosity, which were now formed by



one item from the SAS Reward for Application dimension (“Competition brings about progress”). This factor may be interpreted as a byproduct of Cynicism following the argument of the Pre-Socratic philosopher Heraclitus of Ephesus (fifth century BC) that “War is the father of everything” (The Pan Books Dictionary of Philosophy, 1979, p. 135) following his doctrine that, “Logos<sup>3</sup> keeps everything in order, although all things are in a state of flux.” The factor’s core meaning refers to a possibly competitive and cruel world, in which competition may hinder progress, and in which the individual causing cruelty is divinely punished and left alone in the end.

The sixth factor was named Fate Control and consisted of four items from the Fate Control dimension without any Greek salient input; it is of course the most weakly defined factor.

### Social Axioms and Locus of Control in Greek Students

For exploring the six social axioms factors and the locus of control expectancies in Study 2 with the 558 Greek students, we collected data on internal–external locus of control by employing the Rotter’s I-E Scale (1966, Fakinos, 1979). This established scale assesses an individual’s general expectations about how reinforcement is controlled. It is a forced-choice scale, consisting of 29 pairs of items, each pair including one item tapping the external and another item the internal locus of control, with six pairs used as filler items.

A canonical correlation analysis was employed to compute as many canonical variates as necessary to explain the relationships in our data. The first set of variables in the analysis was the two Locus of Control indices (External and Internal) and the second set was the six social axiom dimensions. Factor scores were computed through the exploratory factor analysis models in Study 2 (as reported in Table 3).

Two canonical correlations were calculated. The first was 0.48 (23% of overlapping variance) and the second was effectively zero. With both canonical correlations included,  $\chi^2(12) = 145.24$ ,  $p < .001$ ,  $\lambda^2 = .77$ . This result (statistically insignificant when removing the first canonical correlation) showed that there was only one canonical variate that explains the relationship between the two sets, and this variate was pursued further (Table 3).

With a cut-off correlation of 0.30 (Tabachnick & Fidell, 2001, p. 199), the variables forming the canonical variate are both Locus of Control variables (external and internal, as a bipolar set) and three axiom dimensions. Specifically, External Locus of Control along with Religiosity and Social Cynicism seem to group together at one end (negatively) of the canonical variate; Internal Locus of

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<sup>3</sup>Logos [Λόγος] (*lóghos*), an ancient Greek term in Heraclitean philosophy meaning a kind of nonhuman intelligence that organizes the discrete elements in the world into a coherent whole. In Stoicism, Logos was equated to a kind of God who was a source of all the rationality in the universe (The Pan Books, Dictionary of Philosophy, 1979, p. 77, p. 199).

**Table 3** Canonical correlation analysis: Canonical variate indices, variance extracted and redundancies between the locus of control set of variables and the set of variables of the six social axiom factors

Locus of Control Set	$r'$	Social axioms Factors set	$r'$
External Locus of Control	<b>-0.39</b>	F1 Religiosity	<b>-0.36</b>
Internal Locus of Control	<b>0.62</b>	F2 Social Cynicism	<b>-0.47</b>
<i>Variance extracted</i>	0.99	F3 Social Complexity	-0.20
<i>Redundancy</i>	0.23	F4 Reward for Application	<b>0.77</b>
		F5 Cynicism & Competition	-0.07
		F6 Fate Control	-0.15
		<i>Variance extracted</i>	0.17
		<i>Redundancy</i>	0.04

Canonical correlation = **.48** (variance overlapping = 23%)

Control and Reward for Application grouped together at the other end of the same continuum (canonical variate).

The next step was to further test for the relationship of the social axioms factors with Locus of Control in terms of Locus groups. That is, through discriminant function analysis, we tried to “predict” or correctly classify participants into an internal or an external group, using information from the six, social axiom factors. This might prove very useful in depicting the most important social axiom predictors of Locus of Control, but we should first, of course, define the groups (obviously two) with respect to locus of control.

We initially computed the  $z$ -scores within each variable (external and internal locus of control) for the total sample. Then we reversed the “internal LOC”  $z$ -scores, since if a participant had a  $z$ -score of  $+X$  for external LOC, he/she was expected to have a  $z$ -score of  $-X$  for internal LOC. By reversing the signs for the internal LOC  $z$ -scores, we could then average the two, to finally express LOC on a continuum with low values meaning internal LOC and high value meaning external LOC. The simple computation followed in the following formula:

$$z' = \frac{\sum_{i=1}^2 (z_i)}{2}, \quad (1)$$

where a positive  $z_i$  denotes external locus of control

For  $z'$  we first computed the Pearson product-moment correlation coefficients with all six factor scores. Not surprisingly, moderate indices were present with the first, the second, and the fourth factor (0.19–0.41, in absolute values). Specifically, the correlations of the  $z'$  index with the first to the sixth factor were: 0.19, 0.25, 0.11, -0.41, 0.04, and 0.08.

Then, the discriminant analysis model was tested for the two groups defined by those above 0 (external locus of control) and those below zero (internal locus of control) as the two classification groups. In the process following the above procedure, 275 participants (49.3%) were assigned to the “External” group and 284 (50.7%) were assigned to the “Internal” group of participants. The eigenvalue for this discriminant analysis function modeling was 0.24 (Wilks'  $\Lambda=0.80$ , with a relevant  $\chi^2$  criterion for  $df=2$  reaching 94.94 and  $p<.001$ ). Although the classification

results did not reveal a “total-distinction” picture (70% of the overall cases were correctly classified), by computing the discriminant function coefficients (stepwise method), we arrived at the following indices (standardized canonical discriminant function coefficients): F1 (0.31), F2 (0.54), F4 (−0.79), and F6 (0.36). It is obvious that the outcomes from the canonical correlation are supported, with one additional component—that of the “Fate Control” (F6) factor, not identified by the canonical correlation procedures, but clearly active in discriminating between externally and internally driven individuals. In other words, Fate Control dimension seems to be weakly associated with External Locus of Control in our findings, but it is a basic criterion for differentiating an externality from an internality orientation of control, along with Religiosity, Social Cynicism, and Reward for Application.

## General Conclusions

The exploratory factor analyses for the Greek samples in Study 1 and Study 2 both showed a recoverable structure of five factors resembling the original structure. Although employing the Procrustean rotations and the respective Tucker  $\Phi$  indices contributed to the identification of five salient factors (Religiosity–Spirituality, Reward for Application, Social Cynicism, Social Complexity, and Fate Control), some of these target rotated factors also implied the possibility of some emic-type variance.

The strong possibility that some of the initial 60 items might be context-dependent and inappropriate for the Greek context, mainly within the space described by Social Complexity and Social Cynicism, pushed us to employ 20 additional Greek salients. With these emic items, although the five social axioms dimensions were verified, a somewhat differently defined factor or dimension of Social Cynicism was revealed. The main emphasis in this Social Cynicism dimension was competition in interpersonal relations. In other words, the new factor seemed to introduce the parameter of competition as an important functional element for the Greek dimension of Social Cynicism. Competition, as a dynamic feature of the relationship with out-groups, has been studied in the Greek cultural setting as a contrast to “*philotimo*,” whose meaning is associated with “cooperation, fairness and altruism” (Triandis & Vassiliou, 1972; Vassiliou, & Vassiliou, 1973).<sup>4</sup> This emic factor of “Competitive Social Cynicism” seems to be functionally incorporated into the original five dimensions of social axioms for the Greek sample, and could be thought of as enriching the perspective on the original, universal social axioms dimensions (Bond et al., 2004; Leung & Bond, 2004).

Its possible presence could be tested in the same fashion in other cultural settings. It would be very interesting to further test a respectively enlarged pool of social axioms items, in various cultural settings, to assess possible expansion and enrichment of the five social axioms. In this vein, Leung and Bond are currently testing an enlarged pool of axiom items contributed by collaborators in ten

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<sup>4</sup>Nevertheless, the Cynic tradition that first flourished in the third century BC in Greece was never organized into some kind of “School,” for it supported the ideas of freedom, self-sufficiency, self-discipline, and individualism (The Pan Books Dictionary of Philosophy, 1979, pp. 77–78).