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## The Effect of Social Axioms on the Relationship Between Needs and Well-Being

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## Abstract

The paper investigates the effect of social axioms on the relationship between basic psychological needs and subjective well-being in two groups of adults residing in two different cultural contexts, Romania and the UK. Participants aged 18 to 60 completed an online survey between 22 May 2019 and 1 March 2021. A sample of 425 Romanian participants ( $M = 40.34$ ,  $SD = 11.235$ ) answered a questionnaire written in the Romanian language, and 137 English-speaking participants ( $M = 28.24$ ,  $SD = 10.741$ ) responded to the same questionnaire but written in the English language. In this study, we used the Basic Psychological Need Satisfaction and Frustration Scale – General Measure (Chen et al., 2015), which measured the basic psychological needs for autonomy, relatedness, and competence; the Social Axioms Survey II (Leung et al., 2012), which measured social axioms; the 5-item World Health Organization Well-Being Index, WHO-5 (1998), which measured the subjective well-being. Analyzing the relationships between social axioms, basic psychological needs, and well-being, we obtained significant results only for the variable social cynicism. We found that social cynicism mediates the relationship between basic psychological needs and subjective well-being for both participants. Also, we found that the reward for application acts as a mediator but only for English-speaking participants.

*Keywords:* Social axioms, basic psychological needs, subjective well-being

## **The Effect of Social Axioms on the Relationship Between Needs and Well-Being**

In this study, we investigate the relationship between three variables, social axioms or beliefs, basic psychological needs, and subjective well-being of participants belonging to two different cultural contexts. We wanted to answer if and how needs and social axioms influence behavior.

Defined as "generalized beliefs about oneself, the social and physical environment, or the spiritual world" (Leung et al., 2002, p. 289), social axioms or beliefs represent a construct that helps explain human actions; they are social because they appear due to the socialization process, and axioms because people accept and endorse them without too much analysis of their validity (Leung & Bond, 2009).

According to the Basic Needs Theory (Deci & Ryan, 2000), humans have three innate, fundamental psychological needs, the achievement of which supports optimal functioning: the need for relatedness, competence, and autonomy. In other words, the satisfaction of the basic psychological needs "predicts optimal psychological functioning, well-being, life satisfaction, and positive affect" (Deci & Ryan, 2000, p. 62). When needs are frustrated or thwarted, people experience non-optimal functioning, ill-being, dissatisfaction and negative affect (Hagger et al., 2020).

Subjective well-being, a term introduced by Diener in 1984 (Diener, 1984), is the individual evaluation of the quality of life (Proctor, 2014). Also, subjective well-being is "a person's cognitive and affective evaluations of his or her life" (Diener et al., 2002a, p. 63). In other words, subjective well-being is an inner state that manifests itself through people's actions.

### **Culture and Cultural Contexts**

We considered participants belonging to different cultural contexts to explore the variables and the relationship between them. We chose Romania, the native country of the authors of this study, and the UK, where one of the authors graduated with a master's degree.

According to Hofstede, culture is "the collective programming of the mind distinguishing the members of one group or category of people from others" (Hofstede Insights, 2019, National culture section, para. 1). "Culture is to a humanity collectivity what personality is to an individual." (Hofstede, 1984, p. 21). Therefore, culture is everywhere where is a group of people.

Extensive research on culture led to the Hofstede model of national culture consisting of the following six factors: power distance index, individualism versus collectivism, masculinity versus femininity, long-term orientation versus short-term normative orientation, and indulgence versus restraint (Hofstede Insights, 2019, National culture section). We obtain helpful information on the two countries by applying the country comparison tool of the Hofstede model of national culture to Romania and the UK (Hofstede Insights, 2019,

Country Comparison section). A summary of the comparison is presented in Table 1.

Table 1 reveals that the Hofstede dimensions of the national cultures manifest opposite tendencies. Whatever the factor, a high-score for Romania corresponds to a low-score for the UK, and vice versa. However, there is only one exception regarding long-term orientation versus short-term orientation: the scores are 52 for Romania and 51 for the UK, and a dominant preference of each national culture cannot be determined. In other words, it seems that both societies maintain some links with the past and deal with the present and future challenges, giving no prioritization to one perspective against the other.

Table 1.

*Romania and the United Kingdom Through the Lens of the Country Comparison Tool of the Hofstede Model. (Hofstede Insights, 2019, Country comparison, Romania and the UK)*

	Power Distance	Individualism vs. Collectivism	Masculinity vs. Femininity	Uncertainty Avoidance	Long-term orientation vs. Short-term orientation	Indulgence versus Restraint
RO	90	30	42	90	52	20
The UK	35	89	66	35	51	69

Note: RO: Romania

On power distance, Romania scored 90, which means that Romanians accept a hierarchical order, everybody has a place, and no justification for that is needed. With a low score of 35, the UK people seem to believe that inequalities between people should be minimized.

Next, Romania is a collectivistic society (30), and people can expect their relatives or representatives of a certain group to look after them while offering loyalty. The UK is a high individualistic society (90), which suggests that individuals take care of only themselves and their close family members. How people define their self-image in these two types of society is "we" against "I".

Romania is considered a feminine society (42), where individuals value equality, solidarity, cooperation, and quality in their working lives and where conflicts are resolved by compromise and negotiations. The UK is considered a masculine society (a score of 66), which denotes a preference for achievement, and assertiveness; people are highly success-oriented.

Romania has a very high preference for avoiding uncertainty (a high score of 90), people have an inner urge to be busy and work hard; Romanian culture maintains rigid codes of belief and behavior and is intolerant of unorthodox behavior and ideas; precision and punctuality are the norms, security is an essential element in individual motivation. The UK is low-scored on uncertainty avoidance (35), which indicates that people have a relaxed attitude toward ambiguity and the fact that the future can never be known.

Regarding the last Hofstede dimension, Romanian culture is one of restraint (a low score of 20); the society tends to cynicism and pessimism and does not put much emphasis on leisure time. A score of 69 indicates that the UK culture is classified as indulgent; people have a positive attitude and a tendency towards optimism. Therefore, we may assume that Romania and the UK represent two different cultural contexts.

### **Previous research on the relationship between the variables in this study**

Earlier research showed that the satisfaction of basic psychological needs represents a critical element for healthy functioning across cultures (Nishimura & Suzuki, 2016); the needs for competence, relatedness and autonomy have a role in maintaining well-being throughout life (Lataster et al., 2022); the basic psychological needs are essential in "development, adjustment, and wellness across cultures, with strong implications for basic motivational science, applied practices, and even broad social policies" (Vansteenkiste et al., 2020, p. 2). Research on basic psychological needs aimed at various areas and aspects of life such as education (Klassen et al., 2012), work and motivation in the workplace (Deci & Ryan, 2014; Olafsen et al., 2018), sport (Li et al., 2013), well-being and enhancement of well-being (Martela & Ryan, 2016), balance among needs (Sheldon & Niemec, 2006; Sheldon & Filak, 2008; Milyavskaya et al., 2009; Milyavskaya et al., 2013; Radel et al., 2013; Dysvik et al., 2013).

Research showed that social axioms are pretty stable across time (Leung et al., 2012b, p. 837), and significant societal changes, such as wars and natural disasters, can result in significant changes in social axioms (Li & Leung, 2012). Taking into account the recent COVID pandemic, we investigated the stability of social axioms on a group of Romanians across three periods between 2019 and 2021. We found that social axioms were relatively stable (Mosoia, 2022). Studies on the culture-level dimensions of social axioms across 41 cultures indicate that societal cynicism has a higher value for Romania (59.2) than for the United Kingdom (50.8); Although societal cynicism deals with large social groups, societal cynicism and social cynicism target the same content (Bond et al., 2004). Previous research showed that social axioms are influential variables for describing groups, and societies (Leung et al., 2002; Bond et al., 2004; Leung & Bond, 2004; Leung & Bond, 2009; Comunian, 2009; Guan et al., 2010; Iliescu, 2010; Dinca & Mihalcea, 2011; Leung et al., 2012a; Leung et al., 2012b; Iliescu et al., 2017) as well as individuals inside those groups and societies (Singelis et al., 2003; Dragolov & Boehncke, 2015). Social axioms were investigated with various variables, in different cultures, such as learning, in the Philippines (Bernardo, 2009), moral development in Italy (Comunian, 2009), behavioral indicators and personality, in Romania (Dincă & Iliescu, 2009), and couple relations, in Romania (Iliescu et al., 2017), social beliefs (Leung & Bond, 2004), values (Bond et al., 2004; Leung et al., 2007), personality and beliefs (Chen et al., 2006), life satisfaction (Lai et al., 2007), achievement (Zhou et al., 2009), behavioral indicators and personality (Dincă & Iliescu, 2009; Kurman, 2011), subjective well-being (Hui & Bond, 2010).

Studies suggest that there are several determinants of subjective well-being, including good mental health and positive social relationships with others (Proctor, 2014; Diener &

Seligman, 2002), environment (Diener & Seligman, 2004), employment (Diener et al., 2002b; Lucas et al., 2004), marriage (Lucas et al., 2003), age (Diener & Suh, 1998), culture (Diener et al., 1995a) and individual characteristics (Diener et al., 1995b).

Therefore, reformulating the question announced at the beginning of this study, we want to explore if and how a person's subjective well-being changes given its basic psychological needs and social axioms or beliefs.

Looking at the first two variables in this study – basic psychological needs and social axioms – we observed that, on the time axis, basic psychological needs to precede social axioms. Consequently, we hypothesize that the causality of basic psychological needs – social axioms is plausible. Moreover, that was the hint to investigate a possible mediation between needs, social axioms, and subjective well-being.

This study brings a new perspective on social axioms as mediators between needs and subjective well-being. In other words, this paper investigates if social axioms and basic psychological needs indirectly affect subjective well-being. Researching such a relationship between the variables in this study may lead us to information on how beliefs and satisfaction or frustration of the needs influence human behavior. For instance, research shows that social cynicism is related to low well-being (Leung & Bond, 2004). However, our study indicates that social cynicism, in combination with psychological needs, tends to have a favorable effect on subjective well-being. Such a result may lead to the development a tool for evaluating well-being considering the degree of satisfaction of basic psychological needs.

The present study explores and investigates the mediation effect of social axioms on the relationship between basic psychological needs and subjective well-being in two groups of adult participants belonging to two different cultural contexts, Romania and the UK. Thus, the three objectives of this study are:

**Objective 1:** To investigate the mediation effect of social beliefs on the relationship between basic psychological needs and subjective well-being in a group of Romanian adults;

**Objective 2:** To explore the mediation effect of social beliefs on the relationship between basic psychological needs and subjective well-being in a group of UK adults;

**Objective 3:** If there is a mediation effect, compare the mediation effects for Romanians and UK participants.

## Theoretical Framework

Self-Determination Theory, SDT (Deci & Ryan, 1985; Deci & Ryan, 2000; Ryan & Deci, 2000) is a theory that links personality, human motivation, and optimal functioning. Within the theory, the psychological needs are "innate rather than learned" (Deci & Ryan, 2000, p. 262), and "innate, essential, and universal" (Ryan & Deci, 2000, p.74). SDT specifies that people have three basic psychological needs: the need for competence, the need for relatedness, and the need for autonomy. The need for competence concerns people's achievements, knowledge, and skills. In any case, people must build competence and mastery over essential tasks. The need for relatedness is the people's need to have a sense

of belonging and connectedness; we may find examples in our experiences that, from time to time, each of us needs other people to some extent. The need to feel that they are the masters of their destiny and rule their lives defines the need for autonomy; people need to think that they control their behavior. Within SDT theory, basic psychological needs are "universal necessities for wellness" (Deci & Ryan, 2014, p. 16). Deci & Ryan (2014) suggest that needs have two facets, satisfaction and frustration; as more needs are satisfied, more positive results may be predicted; if needs are thwarted, one may predict negative outcomes.

A five-dimensional structure of social axioms resulted from intense work on identifying a set of general beliefs that apply to different cultural groups (Leung & Bond, 2004). The five factors were social cynicism, application reward, social complexity, fate control, and religiosity. Social cynicism suggests a negative perspective on human nature and the social world. The reward for application refers to the belief that the effort, knowledge, and careful planning of activities and using other resources will lead to positive results. Social complexity relates to beliefs that people's behavior differs from one situation to another, and problems have multiple solutions. Fate control refers to a complex of views according to which external forces predetermine life events, but humans can predict and change fate or destiny by various means. Religiosity refers to the belief in supernatural powers and religious institutions.

Social axioms were also investigated as mediators of the relationship between insecure attachment styles to mothers and the life satisfaction of Hong Kong Chinese and Americans (Mak et al., 2011). (Dragolov & Boehncke, 2015) studied social axioms as mediators between culture-level and individual-level values. A study on a group of Romanian adult participants shows that social cynicism is a mediating factor between basic psychological needs and subjective well-being (Mosoia & Dincă, 2020).

In a study on very happy people, Diener & Seligman (2002) used a metaphor that gives an interesting perspective: subjective well-being results from several determinants, just like classical music concerts, that involve the collective and coordinated participation of the instruments that make up the symphony orchestra.

## **Method**

### **Participants**

From the start of the study, we considered that Romanian and UK participants must be students or graduates with a minimum age of 18. Most participants from both cultural contexts were recruited through university electronic platforms for students, graduates, and postgraduates. The invitation to participate in the questionnaire was published as an announcement containing information regarding the purpose and title of the research, the author of the investigation and the link to an online questionnaire. The survey was created in Google Forms, so the data were collected automatically in an Excel table, which records the moment of completing the questionnaire. Writing a valid email indicated the participant's

adult age and the agreement to participate in the study. The participants could withdraw from completing the questionnaire for any reason. The announcement was written in the Romanian language for Romanian participants and in English for UK participants. Recruiting of some other Romanian participants followed a series of meetings with undergraduate and master's psychology students, where the first author of the research presented the research and the link to the questionnaire. The decision to fill in the survey was left free to the students. We have agreed that the participants will not be rewarded in any way. In the case of Romanian students and adult participants, this was possible. However, due to the laws in force in the UK, the English participants were rewarded with the sum of 4 pounds for the 15 minutes estimation time for completing the questionnaire – the total amount being provided from the first author's funds. At the beginning of the questionnaire, the participants were asked to honestly answer the questions in the questionnaire. The academic environment from which the respondents came was to guarantee the honesty of their answers.

Participants in this study are female and male adults aged 18 to 60 years and belong to two different cultural contexts, Romania and the UK. They all filled in an online survey between 22 May 2019 and 1 March 2021: 425 Romanian adults ( $M = 40.34$ ,  $SD = 11.235$ ), 286 females ( $M = 39.15$ ,  $SD = 11.056$ ) and 139 males ( $M = 42.81$ ,  $SD = 11.238$ ) living in Romania, answered a questionnaire written in the Romanian language, and 137 UK adults ( $M = 28.24$ ,  $SD = 10.741$ ), 91 females ( $M = 25.63$ ,  $SD = 8.676$ ) and 46 males ( $M = 33.41$ ,  $SD = 12.527$ ), living in the UK, responded to the same questionnaire but written in the English language.

Regarding gender balance, there were 67% female (33% males) Romanian participants and 66% UK females (34% males); Therefore, the gender split is comparable for both groups of participants. The majority of respondents in each of the cultural contexts grew up in an urban environment (74% of Romanian and 65% of the English participants), they graduated from a higher educational institution (89% of Romanians and 83% of the UK participants), and they have a regular monthly income secured by a job or other situations, such as a sick pension, annuity (92% of participants from Romania and 74% of participants from the UK). Differences between the participants belonging to the two cultural contexts manifest in terms of religion: 92% of the Romanians declared themselves religious (for example, Orthodox, Catholic, Protestant), 5% declared atheists, and 3% declared they have no religion; only 40% of the English declared themselves religious (Protestant, Orthodox), 18% declared atheists and 41% declared they have no religion.

## Measures

The Social Axioms Survey II (Leung et al., 2012), abbreviated SAS II, was used to evaluate the social axioms. This questionnaire contains 40 items or statements related to beliefs, which group five dimensions of social axioms, consisting of eight items each: social cynicism, the reward for application, social complexity, fate control and religiosity. Each statement is scored on a Likert scale from 1 ("Strongly disbelieve") to 5 ("Strongly believe"). Consequently, scores on each of the five social axiom factors range from eight (8, a minimum value) to the maximum value of 40. Examples of SAS II items: "One will succeed



if he/she really tries.", "Success requires strong willpower.", "Building the way step by step leads to success" – for the factor reward for application; "People create hurdles to prevent others from succeeding.", "People dislike others who succeed in life.", "Powerful people tend to exploit others." – for the factor social cynicism; "There is usually more than one good way to handle a situation.", "A person's behavior is influenced by many factors.", "People can suddenly lose everything they have." – for the factor social complexity; "There are certain ways for people to improve their destiny.", "Fate determines a person's success in life.", "Matters of life and death are determined by fate." – for the dimension fate control; "Belief in a religion helps one understand the meaning of life.", "Religious faith contributes to good mental health.", "Religion slows down human progress." – for the factor religiosity. For the five subscales of SAS II, Cronbach's alpha coefficients ranged from .64 to .79 (Leung et al., 2012b). The Romanian adaptation of the SAS II consists of 40 items and has the same structure as the English scale version. An email (D. Iliescu, personal communication, 19 September 2020) confirming that the adaptation of the Romanian version of SAS II was made in 2013 by Iliescu, D. and Dinca, M. The calculated alpha-Cronbach internal consistency coefficients indicate good fidelity for social cynicism (.811), the reward for application (.773), fate control (.765) and religiosity (.904), and .672 for social complexity, a value close to the recommended internal consistency reporting standard, greater than .70 (Iliescu & Sulea, 2015).

The Basic Psychological Need Satisfaction and Frustration Scale – General Measure (Chen et al., 2015) was used to measure basic psychological needs for autonomy, relatedness, and competence. The scale consists of 24 items about actual experiences of certain feelings in the respondent's life. Answers are scored on a Likert scale from 1 ("Not True at all") to 5 ("Completely True") to indicate the degree to which the statement is true for the respondent. Each of the three dimensions of the scale – autonomy, relatedness, and competence – consists of four different items, either for the facet of satisfaction or frustration of the need. Therefore, scores range from a minimum value of four (4) to a maximum value of 20. Examples of items: "I feel a sense of choice and freedom in the things I undertake.", "I feel that my decisions reflect what I really want." – autonomy satisfaction; "I feel that the people I care about also care about me", "I feel connected with people who care for me, and for whom I care." – relatedness satisfaction; "I feel confident that I can do things well.", "I feel capable at what I do." – competence satisfaction; "Most of the things I do feel like «I have to»." "I feel forced to do many things I wouldn't choose to do." – autonomy frustration; "I feel excluded from the group I want to belong to.", "I feel that people who are important to me are cold and distant towards me." – relatedness frustration; "I have serious doubts about whether I can do things well.", "I feel disappointed with many of my performance." – competence frustration. Thus, evaluations of the degree of satisfaction and frustration of competence, relational, and autonomy needs were obtained. In the original English version of Chen et al. (2015), the six subscales of this instrument had adequate internal consistency, with Cronbach's alpha coefficients ranging between .73 and .89 for the "satisfaction" subscales and between .64 and .86 for the "frustration" subscales (Chen et al., 2015).

### ***The Romanian version of the Basic Psychological Need Satisfaction and Frustration Scale – General Measure***

At the time of our study, no paper related to the Romanian version of the Basic Psychological Need Satisfaction and Frustration Scale – General Measure scale was identified. Consequently, we took into consideration the translation of the scale into the Romanian language. The first version of the scale in Romanian was made by two Romanian psychologists, connoisseurs of the English language at an advanced level. Next, the Romanian text was revised by a Romanian philologist familiar with the English language. Then, this Romanian text was revised by two different psychologists with a high level of the English language. Later, two other Romanian psychologists who know English did the translation from Romanian to English, and it was found that it is very like the English version of the scale. The final version of the Basic Psychological Need Satisfaction and Frustration Scale – General Measure in the Romanian language was then created.

The next stage consisted of the analysis of the psychometric properties of the scale and evaluating its structure on a sample of Romanian adults ( $N = 138$  participants, 84 females and 54 males,  $M = 44.65$ ,  $SD = 15.25$ ). Because the items are ordinal-polytomous, the analysis calculated ordinal alpha, so the polychoric correlation matrix was used. The calculations were made with the help of the Mplus v7 software (Muthén & Muthén, 2012). The ordinal alpha coefficients have values greater than .90, which allows us to state that the data support the application of factor analysis (Gadermann et al., 2012). Running the exploratory factor analysis (EFA) with categorical factors indicators led to six factors [Chi-Square,  $\chi^2 = 202.132$ ;  $p$ -value = .0017; degrees of freedom,  $df = 147$ ;  $\chi^2/df = 1.375$ ; Root-Mean-Square Error of Approximation,  $RMSEA = .052$  (90% IC: .033-.069); Comparative Fit Index,  $CFI = .977$ ; Tucker-Lewis Index,  $TLI = .956$ ; Standardized Square Root Mean Residual,  $SRMR = .038$ ]. To test the factorial structure of the Romanian version of the scale, a confirmatory factor analysis (CFA), with estimator WLSMV, parametrisation = delta, was used. The fit of the model was checked through different goodness of fit indices (Boomsma, 2000).

The following results were obtained (for the sample of  $N = 138$  participants):  $\chi^2 = 411.195$ ,  $p < .0001$ ;  $df = 237$ ;  $\chi^2/df = 1.735$ ,  $CFI = .926$ ,  $TLI = .914$ ,  $RMSEA = .073$  (90% CI: .061-.085), Weighted-Root-Mean-Square-Residual,  $WRMR = 1.019$ .

According to (Kline (2005), if the ratio  $\chi^2/df < 3$ , then we have a good model fit; We obtained the ratio of 1.735, which is smaller than 3. The values of the incremental fit indices  $CFI$  and  $TLI$  above .90 indicate a reasonable fit, and above .95 suggests a good model fit (Bentler, 1990; Hu & Bentler, 1999); Our results show a  $CFI$  of .926 and a  $TLI$  of .914, values that are higher than .90.  $RMSEA$  is a measure of "discrepancy per degree of freedom" (Browne & Cudeck, 1993); Values  $< 0.05$  suggest good model fit and values  $< 0.08$  suggest a reasonable model fit (Byrne, 2009; Hu & Bentler, 1999) – we obtained a value of .073, that is smaller than .08.  $SRMR$  is an absolute measure of fit (Jöreskog & Sörbom, 1982); values smaller than .05 indicate good model fit, and those smaller than .08 indicate reasonable model fit. Hu & Bentler (1999) suggests that for  $RMSEA$  and  $SRMR$ , a combined cut-off of .06 and .09, respectively, combined with a  $CFI$  value higher than .90 indicates a good fit. In

brief, we evaluated the fit between the data using the goodness-of-fit indices and concluded that we have an acceptable fit.

The values obtained in our study are similar with those from other studies:  $\chi^2 = 441.99$ ;  $df = 231$ ;  $CFI = .95$ ;  $RMSEA (90\%IC) = .04$ ;  $SRMR = .04$  (Chen et al., 2015);  $\chi^2 = 519.13$ ;  $df = 237$ ;  $CFI = .95$ ;  $RMSEA = .05$ ;  $SRMR = .06$ ;  $N = 417$  participants (Cordeiro et al., 2016);  $\chi^2 = 645.03$ ;  $df = 237$ ;  $CFI = .904$ ;  $TLI = .888$ ;  $RMSEA = .055 (IC: .050-.061)$ ;  $SRMR = .054$ ;  $N = 564$  participants (Nishimura & Suzuki, 2016);  $\chi^2 = 469.96$ ;  $df = 237$ ;  $CFI = .97$ ;  $RMSEA = .03-.04$ ;  $SRMR = .04$ ;  $N = 544$  participants (Costa et al., 2017);  $\chi^2 / df = 1.75$ ;  $CFI = .92$ ;  $TLI = .90$ ;  $RMSEA = .05 (IC: .042-.058)$ ;  $SRMR = .05$  (Del Valle et al., 2018).

To measure subjective well-being, we used the five-item World Health Organization Well-Being Index, WHO-5, 1998 version, one of the most used tools for assessing subjective well-being (Topp et al., 2015). This self-report questionnaire consists of five statements on how the respondent have been feeling over the last two weeks by choosing the appropriate answer on a Likert scale, where 0 = "At no time", 1 = "Some of the time", 2 = "Less than half of the time", 3 = "More than half of the time", 4 = "Most of the time", and 5 = "All the time". The raw score ranges from zero (0) to 25, where 0 represents the worst possible, and 25 represents the best possible quality of life. To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4; A percentage score of 0 represents the worst possible, whereas a score of 100 represents the best possible quality of life. In other words, a higher score indicates better subjective well-being. Examples of items: "I have felt cheerful and in good spirits.", "I have felt calm and relaxed.", "I have felt active and vigorous." The WHO-5 scale has good fidelity, Cronbach's alpha internal consistency coefficients being between .86 and .90 for the European sample and between .84 and .86 for the Romanian sample (Liță, 2018).

## Data and Statistical Approach

The data for this study consists of information collected from a total number of 562 participants. The Romanian sample size is 425 participants with complete data, and the UK sample size is 137 participants with complete data. We did the statistical analysis of the data with the IBM SPSS Statistics 24. The simple mediation effect was tested using a computational aid in a freely available macro for statistics software named version 3.4.1 PROCESS (Hayes, 2018), a macro installed as an extension in the statistical software. The indirect effect was tested using bootstrap standard errors and confidence intervals (BCA CI, bias-corrected and accelerated confidence intervals). The null (H0) and the alternative (H1) hypotheses were "the indirect effect of the social cynicism is zero" and "the indirect effect of social cynicism is different from zero". If zero falls between the lower and upper bound of the confidence interval (95%), we maintain the null; If zero falls outside the interval, we reject the null. We considered the independent variable (X), one need at a time, the dependent variable (Y), subjective well-being, and the mediator variable (M), one social axiom at a time. Therefore, we test the relationship  $X \rightarrow M \rightarrow Y$ , for six needs, five social axioms, and one dependent variable, where  $X = \{\text{competence satisfaction, competence frustration, relatedness satisfaction, relatedness frustration, autonomy satisfaction, autonomy}$

frustration} represents the predictor variable,  $M = \{\text{social cynicism, reward for application, social complexity, fate control, religiosity}\}$  is the mediator variable, and  $Y = \{\text{subjective well-being}\}$  represents the outcome variable. Consequently, we tested 30 possible relations between the variables.

## Results

Descriptive statistics for the variables in this study, basic psychological needs, social axioms, and subjective well-being, are presented in Table 2a to Table 2d: the number, gender split, age range of participants in each of the two cultural contexts (Table 2a), the mean ( $M$ ) and standard deviation ( $SD$ ) for the variables in this study, social axioms (Table 2b), basic psychological needs (Table 2c) and subjective well-being (Table 2d). The sample size was 425 for Romania and 137 for the UK.

Table 2a.

*The Number of Adult Participants in Each of the two Cultural Contexts*

Participants		Age (years), Range 18-60	
		$M$	$SD$
Romania	425	40.34	11.24
	Female	286	39.15
	Male	139	42.81
United Kingdom	137	28.24	10.74
	Female	91	25.63
	Male	46	33.41

Table 2b.

*The Means ( $M$ ) and Standard Deviations ( $SD$ ) of the Social Axiom Scores*

Social Cynicism		Reward for Application		Social Complexity		Fate Control		Religiosity	
$M$	$SD$	$M$	$SD$	$M$	$SD$	$M$	$SD$	$M$	$SD$
22.83	5.32	32.83	4.27	33.95	3.41	22.29	5.78	26.51	7.20
22.30	5.28	32.89	4.22	34.49	3.27	22.41	5.60	25.90	6.75
23.91	5.25	32.71	4.38	32.86	3.43	22.05	6.14	27.78	7.92
24.95	4.21	30.78	4.80	33.93	2.95	18.29	5.09	21.07	6.93
24.40	4.59	30.80	4.89	33.98	2.93	18.82	5.16	20.56	6.29
26.04	3.10	30.74	4.66	33.83	3.02	17.24	4.84	22.07	8.03

Table 2c.

*The Means (M) and Standard Deviations (SD) of the Basic Psychological Needs*

Need for Competence				Need for Relatedness				Need for Autonomy			
Sat		Fru		Sat		Fru		Sat		Fru	
<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
17.23	2.47	7.92	3.35	16.58	2.62	6.92	2.75	15.40	2.70	10.71	3.10
17.40	2.29	7.51	2.93	16.64	2.65	6.62	2.54	15.45	2.62	10.45	3.21
16.88	2.78	8.76	3.98	16.44	2.57	7.55	3.05	15.29	2.85	11.24	2.80
15.16	3.10	11.14	3.99	16.63	2.60	7.64	2.84	14.72	2.45	11.26	3.25
14.52	3.16	11.36	4.21	16.78	2.29	7.79	2.95	14.62	2.38	11.20	3.33
16.43	2.54	10.70	3.53	16.33	3.12	7.33	2.63	14.93	2.58	11.37	3.14

Note: Sat – Satisfaction; Fru – Frustration.

Table 2d.

*The Means (M) and Standard Deviations (SD) of Subjective Well-Being*

Participants	Subjective Well-being	
	<i>M</i>	<i>SD</i>
Romania	62.04	20.12
Female	64.07	19.36
Male	57.87	21.07
United Kingdom	51.42	18.68
Female	52.18	18.14
Male	49.91	19.83

To achieve all three objectives of our study, we investigated whether social axioms mediate the relationship between basic psychological needs and subjective well-being. We tested 30 possible relations of simple mediation. We present the results for each group of participants, the indirect effects and the corresponding variances in subjective well-being.

In all following tables of this paper, we use the following notations: *a*, *b*, *c*, and *c'* are the regression coefficients; *ab* is the indirect effect; *SE(HC0)* is the heteroscedasticity-consistent standard error; *p* is the level of statistical significance; *CI (lower)* is the lower bound of a 95% confidence interval, and *CI (upper)* is the upper bound of a 95% confidence interval; *R<sup>2</sup><sub>Y,X</sub>* is the proportion of variance in *Y* explained by *X*; *R<sup>2</sup><sub>M,X</sub>* is the proportion of variance in *M* explained by *X*; *R<sup>2</sup><sub>Y,MX</sub>* is the proportion of variance in *Y* explained by *X* and *M*; the arrow '→' should be understood as 'affects'. We mention that the 95% CI for *ab* is obtained by the bias-corrected bootstrap with 5,000 resamples.

## Romanian Participants

We obtained six statistically significant simple mediation effects, three positives and three negative indirect effects, for the 425 Romanian sample of female and male adult participants. The statistically significant mediation relations for this sample are presented below.

### ***Autonomy satisfaction* → *Social cynicism* → *Subjective well-being***

To investigate whether social cynicism mediates (M, the mediator variable) the relationship between autonomy satisfaction (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed. Table 3 contains the results of the analysis.

Table 3.

*Results for the Mediation of Autonomy Satisfaction (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	13.29	5.47	0.02	2.53	24.04
$X \rightarrow Y (c)$	3.17	.35	< .001	2.48	3.85
$R^2_{Y,X}$	.18				
Relation with mediator					
Intercept	33.61	7.09	< .001	19.67	47.56
$X \rightarrow M (a)$	-.25	.11	.03	-.46	-.03
$M \rightarrow Y (b)$	-.76	.16	< .001	-1.08	-.45
$X \rightarrow Y (c')$	2.98	.35	< .001	2.30	3.66
Indirect effect (ab)	.19			.01	.40
$R^2_{M,X}$	.02				
$R^2_{Y,MX}$	.22				

In Table 3, we observe that both regression coefficients a and b are negative, but there are in the right direction. In other words, for  $a = -.2459$ , while autonomy satisfaction increases, social cynicism decreases; for  $b = -.7639$ , while social cynicism increases, the subjective well-being decreases. We conclude that both relationships are in the right direction. Results from a simple mediation analysis indicated that autonomy satisfaction is related to subjective well-being through its relationship with social cynicism. A bias-corrected confidence interval based on 5,000 bootstrap samples indicated that the indirect effect was entirely above zero. Because zero (the null) does not fall between the lower and upper bound of the 95% confidence interval, we infer that total effect of autonomy satisfaction on subjective well-being is significantly different from zero. Therefore, there was a significant positive indirect effect of autonomy satisfaction on subjective well-being through social cynicism,  $ab = .1878$ ,

95% BCa CI = [.0128, .3960]. Thus, there is a change (an increase) of .1878 units in subjective well-being for every increase in one unit of autonomy satisfaction. Furthermore, autonomy satisfaction and social cynicism explain 22.05% of the variance in subjective well-being. Hence, the relationship between autonomy satisfaction and subjective well-being was mediated by social cynicism.

**Competence frustration → Social cynicism → Subjective well-being**

To investigate whether social cynicism mediates (M, the mediator variable) the relationship between competence frustration (X, the predictor variable) and subjective well-being (Y, the outcome variable) a simple mediation analysis was performed; Table 4 contains the results.

Table 4.

*Results for the Mediation of the Effect of Competence Frustration (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	82.63	2.38	< .001	77.96	87.31
X → Y (c)	-2.60	.28	< .001	-3.15	-2.04
R <sup>2</sup> <sub>Y,X</sub>	.19				
Relation with mediator					
Intercept	93.65	4.00	< .001	85.79	101.50
X → M (a)	.41	.08	< .001	.26	.57
M → Y (b)	-.56	.17	= .001	-.90	-.22
X → Y (c')	-2.37	.29	< .001	-2.94	-1.80
Indirect effect (ab)	-.23			-.43	-.079
R <sup>2</sup> <sub>M,X</sub>	.07				
R <sup>2</sup> <sub>Y,MX</sub>	.21				

According to Table 4, there was a statistically significant negative indirect effect of competence frustration on subjective well-being through social cynicism,  $ab = -.2336$ , 95% BCa CI = [-.4275, -.0789]. Therefore, there is a change of -.2336 units (a decrease) in subjective well-being for every increase in one unit of competence frustration. In addition, competence frustration and social cynicism explain 20.80% of the variance in subjective well-being.

**Competence satisfaction → Social cynicism → Subjective well-being**

To investigate whether social cynicism mediates (M, the mediator variable) the relationship between competence satisfaction (X, the predictor variable) and subjective well-being (Y, the outcome variable) a simple mediation analysis was performed. Table 5 contains the results.

Table 5.

*Results for the Mediation of the Effect of Competence Satisfaction (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

<b>Relation</b>	<b>Estimate</b>	<b>SE (HC0)</b>	<b>p</b>	<b>CI (lower)</b>	<b>CI (upper)</b>
<b>Relation without mediator</b>					
Intercept	4.96	6.15	= .4203	-7.12	17.04
$X \rightarrow Y (c)$	3.31	.36	< .0001	2.61	4.02
$R^2_{Y,X}$	.17				
<b>Relation with mediator</b>					
Intercept	25.99	7.85	= .0010	10.56	41.42
$X \rightarrow M (a)$	-.31	.11	= .0052	-.52	-.09
$M \rightarrow Y (b)$	-.75	.17	< .0001	-1.08	-.42
$X \rightarrow Y (c')$	3.08	.36	< .0001	2.38	3.79
Indirect effect (ab)	.23			.05	.46
$R^2_{M,X}$	.02				
$R^2_{Y,MX}$	.20				

Table 6.

*Results for the Mediation of the Effect of Relatedness Satisfaction (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

<b>Relation</b>	<b>Estimate</b>	<b>SE (HC0)</b>	<b>P</b>	<b>CI (lower)</b>	<b>CI (upper)</b>
<b>Relation without mediator</b>					
Intercept	22.92	6.48	= .005	10.17	35.66
$X \rightarrow Y (c)$	2.36	.39	< .001	1.59	3.13
$R^2_{Y,X}$	.095				
<b>Relation with mediator</b>					
Intercept	45.09	8.97	< .001	27.45	62.72
$X \rightarrow M (a)$	-.35	.11	= .002	-.57	-.13
$M \rightarrow Y (b)$	-.77	.18	< .001	-1.14	-.41
$X \rightarrow Y (c')$	2.09	.40	< .001	1.31	2.87
Indirect effect (ab)	.27			.08	.51
$R^2_{M,X}$	.03				
$R^2_{Y,MX}$	.14				

In Table 5, we observe that both regression coefficients a and b are negative, but there are in the right direction. In other words, for a = -.3067, while competence satisfaction increases, social cynicism decreases; for b = -.7483, while social cynicism increases, the subjective well-being decreases. We conclude that both relationships are in the right direction. According to Table 5, there was a positive indirect effect of competence satisfaction on



subjective well-being through social cynicism,  $ab = .2295$ , 95% BCa CI = [.0540, .4631]; there is an increase of .2295 units in subjective well-being for every rise in competence satisfaction. In addition, competence satisfaction and social cynicism explain 20.39% of the variance in subjective well-being.

***Relatedness satisfaction → Social cynicism → Subjective well-being***

To investigate whether social cynicism mediates (M, the mediator variable) the relationship between relatedness satisfaction (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; Table 6 contains the results. We observe in Table 6 that both regression coefficients a and b are negative, but there are in the right direction. In other words, for  $a = -.3525$ , while relatedness satisfaction increases, social cynicism decreases; for  $b = -.7733$ , while social cynicism increases, the subjective well-being decreases. We conclude that both relationships are in the right direction.

According to the data in Table 6, there was a statistically significant positive mediation effect of relatedness satisfaction on subjective well-being through social cynicism,  $ab = .2726$ , 95% BCa CI [.0820, .5134]. Thus, there is a change (an increase) of .2726 units in subjective well-being for every increase in one unit of relatedness satisfaction. Furthermore, relatedness satisfaction and social cynicism explain 13.53% of the variance in subjective well-being.

***Relatedness frustration → Social cynicism → Subjective well-being***

To investigate whether social cynicism mediates (M, the mediator variable) the relationship between relatedness frustration (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; Table 7 contains the results.

Table 7.

*Results for the Mediation of the Effect of Relatedness Frustration (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	78.97	2.55	< .001	73.95	83.99
$X \rightarrow Y (c)$	-2.44	.36	< .001	-3.16	-1.73
$R^2_{Y,X}$	.11				
Relation with mediator					
Intercept	89.59	4.08	< .001	81.57	97.60
$X \rightarrow M (a)$	.67	.09	< .001	.49	.86
$M \rightarrow Y (b)$	-.58	.18	= .002	-.94	-.22
$X \rightarrow Y (c')$	-2.05	.38	< .001	-2.80	-1.31
Indirect effect (ab)	-.39			-.69	-.15
$R^2_{M,X}$	.12				
$R^2_{Y,MX}$	.13				

We notice in Table 7 a negative indirect effect of relatedness frustration on subjective well-being through social cynicism,  $ab = -.3915$ , 95% BCa CI  $[-.6877, -.1479]$ . That is, for every increase in one unit of relatedness frustration, there is a change (a decrease) of .3915 units in subjective well-being. In addition, relatedness, frustration and social cynicism explain 13.28% of the variance in subjective well-being.

***Autonomy frustration → Social cynicism → Subjective well-being***

To investigate whether social cynicism mediates (M, the mediator variable) the relationship between autonomy frustration (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; Table 8 contains results.

Table 8.

*Results for the Mediation of the Effect of Autonomy Frustration (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	84.93	3.44	< .001	78.17	91.69
$X \rightarrow Y (c)$	-2.14	.31	< .001	-2.75	-1.52
$R^2_{Y,X}$	.11				
Relation with mediator					
Intercept	93.86	4.53	< .001	84.95	102.77
$X \rightarrow M (a)$	.65	.08	< .001	.49	.81
$M \rightarrow Y (b)$	-.56	.19	= .004	-.94	-.18
$X \rightarrow Y (c')$	-1.77	.33	< .001	-2.43	-1.12
Indirect effect (ab)	-.36			-.64	-.12
$R^2_{M,X}$	.14				
$R^2_{Y,MX}$	.13				

In Table 8, we observe a negative indirect effect of autonomy frustration on subjective well-being through social cynicism,  $ab = -.3647$ , 95% BCa CI  $[-.6418, -.1175]$ ; For every increase in one unit of autonomy frustration, there is a change (a decrease) of .3647 units in subjective well-being. Furthermore, autonomy frustration and social cynicism explain 12.73% of the variance in subjective well-being.

Consequently, we obtained six mediation relations, where social cynicism is the only mediator. In other words, the investigation revealed a mediation effect between the variables for the Romanian sample of participants. Therefore, we achieved the first objective of our study.

In addition, we note from Table 9 that for the Romanian sample, autonomy satisfaction and social cynicism explain the highest per cent of the variance in subjective well-being (22.05%), and autonomy frustration and social cynicism explain the lowest per cent of the variance in subjective well-being (12.73%).

Table 9.

*Six Statistically Significant Positive (+) and Negative (-) Mediation Effects for the Romanian sample and the Variances in Well-Being Explained by Social Cynicism, the Only Mediator for this Group of Participants.*

Independent variable	Mediator	Dependent variable	Indirect effect	Variance in subjective well-being explained by the independent variable and mediator
Autonomy satisfaction	Social cynicism	Subjective well-being	+ .19	22.05%
Competence frustration			- .23	20.80%
Competence satisfaction			+ .23	20.39%
Relatedness satisfaction			+ .27	13.53%
Relatedness frustration			- .39	13.28%
Autonomy frustration			- .36	12.73%

Table 10.

*Results for the Mediation of the Effect of Competence Frustration (X) on Subjective Well-Being (Y) by Reward for Application (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	78.05	3.80	< .001	70.53	85.56
$X \rightarrow Y (c)$	-2.39	.34	< .001	-3.07	-1.71
$R^2_{Y,X}$	.26				
Relation with mediator					
Intercept	53.74	9.81	< .001	34.33	73.14
$X \rightarrow M (a)$	-.29	.10	= .005	-.50	-.09
$M \rightarrow Y (b)$	.71	.27	= .008	.19	1.24
$X \rightarrow Y (c)$	-2.18	.35	< .001	-2.87	-1.50
Indirect effect (ab)	-.21			-.50	-.03
$R^2_{M,X}$	.06				
$R^2_{Y,MX}$	.29				

## UK Participants

We obtained six statistically significant mediation effects, three positives and three negative indirect effects, for the 137 UK sample of 91 females and 46 male adult participants.

Competence frustration  $\rightarrow$  Reward for application  $\rightarrow$  Subjective well-being

To investigate whether reward for application (M, the mediator variable) mediates the relationship between competence frustration (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; Table 10 contains the results.

A statistically significant negative indirect effect of competence frustration on subjective well-being through reward for application was observed,  $ab = -.2098$ , 95% BCa CI =  $[-.4963, -.0285]$ . That is, for every increase in one unit of competence frustration, there is a change of .2098 units (a decrease) in subjective well-being. Furthermore, competence frustration and reward for application explain 29.29% of the variance in subjective well-being.

***Relatedness frustration → Reward for application → Subjective well-being***

To investigate whether reward for application (M, the mediator variable) mediates the relationship between relatedness frustration (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; Table 11 contains the results.

Table 11.

*Results for the Mediation of the Effect of Relatedness Frustration (X) on Subjective Well-Being (Y) by Reward for Application (M).*

<b>Relation</b>	<b>Estimate</b>	<b>SE (HC0)</b>	<b>p</b>	<b>CI (lower)</b>	<b>CI (upper)</b>
<b>Relation without mediator</b>					
Intercept	75.92	3.81	< .001	68.38	83.45
$X \rightarrow Y (c)$	-3.21	.43	< .001	-4.07	-2.35
$R^2_{Y,X}$	.24				
<b>Relation with mediator</b>					
Intercept	49.37	8.98	< .001	31.61	67.13
$X \rightarrow M (a)$	-.36	.16	= .028	-.67	-.04
$M \rightarrow Y (b)$	.79	.25	= .002	.30	1.28
$X \rightarrow Y (c')$	-2.93	.42	< .001	-3.77	-2.09
Indirect effect (ab)	-.28			-.72	-.03
$R^2_{M,X}$	.04				
$R^2_{Y,MX}$	.28				

According to Table 11, there was a significant negative indirect effect of relatedness frustration on subjective well-being through reward for application,  $ab = -.2818$ , 95% BCa CI =  $[-.7200, -.0335]$ . For every increase in one unit of relatedness frustration, there is a change (a decrease) of .2818 units in subjective well-being. Furthermore, relatedness frustration and reward for application explain 27.82% of the variance in subjective well-being.

**Relatedness satisfaction → Reward for application → Subjective well-being**

To investigate whether reward for application (M, the mediator variable) mediates the relationship between relatedness satisfaction (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed. In Table 12, we report the results.

Table 12.

*Results for the Mediation of the Effect of Relatedness Satisfaction (X) on Subjective Well-Being (Y) by Reward for Application (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	1.82	9.53	= .849	-17.03	20.67
$X \rightarrow Y (c)$	2.98	.57	< .001	1.86	4.11
$R^2_{Y,X}$	.17				
Relation with mediator					
Intercept	-16.10	10.34	= .122	-36.55	4.35
$X \rightarrow M (a)$	.48	.14	= .007	.21	.76
$M \rightarrow Y (b)$	.79	.27	= .004	.26	1.32
$X \rightarrow Y (c')$	2.60	.58	< .001	1.46	3.74
Indirect effect (ab)	.38			.07	.85
$R^2_{M,X}$	.07				
$R^2_{Y,MX}$	.21				

According to Table 12, there was a positive indirect effect of relatedness satisfaction on subjective well-being through reward for application,  $ab = .3822$ , 95% BCa CI = [.0739, .8526]. For every increase in one unit of relatedness satisfaction, there is a change of 0.3822 units (an increase) in subjective well-being. Furthermore, relatedness satisfaction and reward for application explain 21.02% of the variance in subjective well-being.

**Competence satisfaction → Reward for application → Subjective well-being**

To investigate whether reward for application (M, the mediator variable) mediates the relationship between competence satisfaction (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; In Table 13, we report the results.

According to Table 13, a significant positive indirect effect of competence satisfaction on subjective well-being through reward for application was observed,  $ab = .3901$ , 95% BCa CI = [.0689, .8658]. For every increase in one unit of competence satisfaction, there is a change (an increase) of .3901 units in subjective well-being. Furthermore, competence satisfaction and reward for application explain 18.13% of the variance in subjective well-being.

Table 13.

*Results for the Mediation of the Effect of Competence Satisfaction (X) on Subjective Well-Being (Y) by Reward for Application (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	15.65	7.43	= .037	.95	30.35
$X \rightarrow Y (c)$	2.36	.48	< .001	1.41	3.31
$R^2_{Y,X}$	.15				
Relation with mediator					
Intercept	-.13	10.21	= .989	-20.32	20.06
$X \rightarrow M (a)$	.55	.15	< .001	.26	.85
$M \rightarrow Y (b)$	.70	.28	= .013	.15	1.26
$X \rightarrow Y (c')$	1.97	.48	= .001	1.02	2.92
Indirect effect (ab)	.39			.07	.87
$R^2_{M,X}$	.13				
$R^2_{Y,MX}$	.18				

***Autonomy frustration → Social cynicism → Subjective well-being***

To investigate whether social cynicism (M, the mediator variable) mediates the relationship between autonomy frustration (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; In Table 14, we report the results.

Table 14.

*Results for the Mediation of the Effect of Autonomy Frustration (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	77.02	4.79	< .001	67.54	86.49
$X \rightarrow Y (c)$	-2.27	.42	< .001	-3.10	-1.45
$R^2_{Y,X}$	.16				
Relation with mediator					
Intercept	92.37	7.91	< .001	76.73	108.01
$X \rightarrow M (a)$	.30	.11	= .007	.08	.51
$M \rightarrow Y (b)$	-.71	.34	= .041	-1.39	-.03
$X \rightarrow Y (c')$	-2.06	.44	< .001	-2.93	-1.20
Indirect effect (ab)	-.21			-.53	-.01
$R^2_{M,X}$	.05				
$R^2_{Y,MX}$	.18				

In Table 14, we observe a negative indirect effect of autonomy frustration on subjective well-being through social cynicism,  $ab = -.2100$ , 95% BCa CI =  $[-.5294, -.0113]$ . For every increase in one unit of autonomy frustration, there is a change of .2100 units (a decrease) in subjective well-being. Furthermore, autonomy frustration and social cynicism explain 18.12% of the variance in subjective well-being.

**Competence satisfaction → Social cynicism → Subjective well-being**

To investigate whether social cynicism (M, the mediator variable) mediates the relationship between competence satisfaction (X, the predictor variable) and subjective well-being (Y, the outcome variable), a simple mediation analysis was performed; Table 15 contains the results.

Table 15.

*Results for the Mediation of the Effect of Competence Satisfaction (X) on Subjective Well-Being (Y) by Social Cynicism (M).*

Relation	Estimate	SE (HC0)	p	CI (lower)	CI (upper)
Relation without mediator					
Intercept	15.65	7.43	= .037	.95	30.35
$X \rightarrow Y (c)$	2.36	.48	< .001	1.41	3.31
$R^2_{Y,X}$	.15				
Relation with mediator					
Intercept	37.64	13.09	= .005	11.75	63.54
$X \rightarrow M (a)$	-.27	.10	= .001	-.48	-.07
$M \rightarrow Y (b)$	-.76	.35	= .034	-1.45	-.06
$X \rightarrow Y (c')$	2.15	.51	< .001	1.15	3.15
Indirect effect (ab)	.21			.00	.50
$R^2_{M,X}$	.04				
$R^2_{Y,MX}$	.18				

In Table 15, we observe that both regression coefficients a and b are negative, but there are in the right direction. In other words, for  $a = -.2748$ , while competence satisfaction increases, social cynicism decreases; for  $b = -.7554$ , while social cynicism increases, the subjective well-being decreases. We conclude that both relationships are in the right direction. According to Table 15, there was a positive indirect effect of competence satisfaction on subjective well-being through social cynicism,  $ab = .2076$ , 95% BCa CI =  $[.0013, .4965]$ . For every increase in one unit of competence satisfaction, there is a change of .2076 units (an increase) in subjective well-being. Furthermore, competence satisfaction and social cynicism explain 18.05% of the variance in subjective well-being. Hence, in the case of UK participants, we have identified two mediators, reward for application and social cynicism. Thus, the investigation revealed a mediation effect between the variables. Therefore, we achieved Objective 2 of our study.

We note that the highest per cent of the variance in subjective well-being (29.29%) is explained by competence frustration and reward for application. Also, competence satisfaction and social cynicism explain the lowest per cent of the variance in subjective well-being (18.05%). Table 16 contains all six mediation relations for the UK sample of adult participants.

Table 16.

*Six Statistically Significant Positive (+) and Negative (-) Mediation Effects for the UK Sample of Participants; Reward for Application and Social Cynicism are the two Mediators, Which Explain the Variances in Subjective Well-Being.*

Independent variable	Mediator	Dependant variable	Indirect effect	Variance in subjective well-being explained by the mediator and the independent variable
Competence frustration	Reward application	Subjective well-being	-.21	29.29%
Relatedness frustration	Reward application		-.28	27.82%
Relatedness satisfaction	Reward application		+.38	21.02%
Competence satisfaction	Reward application		+.39	18.13%
Autonomy frustration	Social cynicism		-.21	18.12%
Competence satisfaction	Social cynicism		+.21	18.05%

### Romanian and UK Participants

For both Romanian and UK participants, we checked 30 possible mediation relations, and twelve resulted statistically significant, six mediations for each sample of participants, three positive and three negative mediations. Results are reported in Table 17, where we noted competence satisfaction with Comp. Sat., competence frustration with Comp. Fru., relatedness satisfaction with Relat. Sat., relatedness frustration with Relat. Fru., autonomy satisfaction with Aut. Sat., autonomy frustration with Aut. Fru, social cynicism with Soc. Cyn., the reward for application with Rew. 4. App., subjective well-being with SWB.

For the UK group, we found two mediators, reward for application and social cynicism; for the Romanian sample, we found one mediator, social cynicism. Another observation is that social cynicism mediates the relationship between competence satisfaction and subjective well-being and between autonomy frustration and subjective well-being for both Romanians and UK participants.



Table 17.

*Twelve Statistically Significant Positive (+) and Negative (-) Mediation Relations for Both Samples of Romanian and UK Participants.*

<b>Romanian participants</b>	<b>Indirect effect</b>	<b>UK participants</b>	<b>Indirect effect</b>
Aut. Sat. → Soc. Cyn. → SWB	+ .19	Comp. Sat. → Rew. 4 App. → SWB	+ .39
Comp. fru. → Soc. Cyn. → SWB	- .23	Comp. fru. → Rew. 4 app. → SWB	- .21
Relat. sat. → Soc. Cyn. → SWB	+ .27	Relat. sat. → Rew. 4 app. → SWB	+ .38
Relat. fru. → Soc. Cyn. → SWB	- .39	Relat. fru. → Rew. 4 app. → SWB	- .28
Comp. sat. → Soc. Cyn. → SWB	+ .23	Comp. sat. → Soc. Cyn. → SWB	+ .21
Aut. fru. → Soc. Cyn. → SWB	- .36	Aut. fru. → Soc. Cyn. → SWB	- .21

### Comparing the Mediation Effects

The latest two relations in Table 17 allow us to compare the mediation effects. Social cynicism mediates the relationship between competence satisfaction and subjective well-being, and the indirect effect is positive for both Romanians and the English. The mediation effect for Romanians is greater than the indirect effect for the English (.2295 > .2076). Social cynicism mediates the relationship between autonomy frustration and subjective well-being, and the indirect effect is negative for both groups. The mediation effect for Romanians is smaller than the indirect effect for the English (-.3647 < -.2100). Therefore, we achieved Objective 3 of our study.

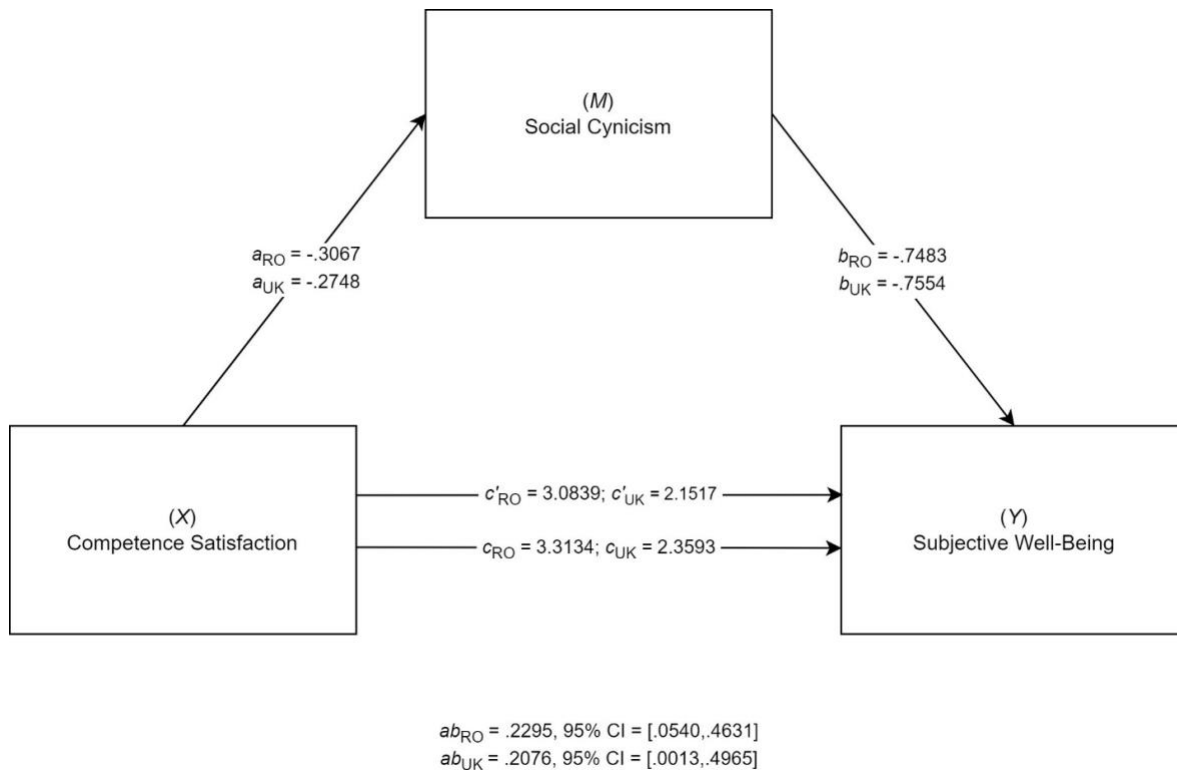
The diagram in Figure 1 illustrates the mediation effect of social cynicism on the relationship between competence satisfaction and subjective well-being corresponding to the two groups of participants in this study.

## Discussion and Conclusion

The present study examined relationships between social axioms, basic psychological needs, and subjective well-being in two adult participants' groups from two different cultural contexts, Romania and the UK. We found a dozen statistically significant mediation relations for Romanian and English participants. Each group has six mediations, three positives and three negative mediations. Therefore, some beliefs mediate the link between needs and well-being, independent of cultural context.

Figure 1.

*The Mediation Effect of Social Cynicism Between Competence Satisfaction and Subjective Well-Being Corresponding to the Romanian and UK Groups of Participants (the regression coefficients  $a_{RO}$  and  $a_{UK}$ ,  $b_{RO}$  and  $b_{UK}$ ,  $c_{RO}$  and  $c_{UK}$ ,  $c'_{RO}$  and  $c'_{UK}$ , and the indirect effects  $ab_{RO}$  and  $ab_{UK}$ ).*



We observed that social cynicism mediates the relationship between competence satisfaction and subjective well-being and between autonomy frustration and subjective well-being for Romanian and English samples. For example, the interposition of social cynicism between the need for competence and subjective well-being has an indirect effect on improving well-being; that is a counterintuitive result.

Consequently, from all five social axioms, only social cynicism and reward for application act as mediators for the relationship between needs and behavior but depend on the group sample. Thus, social cynicism is the only mediator for the Romanian group of participants. Social cynicism and reward for application are the two mediators for the English sample.

## Social Cynicism

The analysis results show that social cynicism has a salient mediating effect between needs and subjective well-being. We think that the type of society participants live in, functional or dysfunctional, matters. On the one hand, in a functioning society, people respect the rules

and trust in fellows, institutions, and authorities; In addition, any behavior that deviates from the law is sanctioned, first and foremost, by other people. On the other hand, in a dysfunctional society, such as the societies in transitions that confront financial and economic difficulties, different kinds of disputes, and street protests, people tend to distrust fellows, institutions and authorities. In a dysfunctional society, social cynicism has an adaptative role and protects the individual. In other words, social cynicism manifests as an internal adaptation mechanism to the community around them.

Another aspect to consider is that social cynicism in Romania is higher than in the UK, a result of previous research on societal cynicism in 41 cultures, Romania and the UK included (Bond et al., 2004a), where the authors show that Societal Cynicism Index indicates a higher value in Romania than in the United Kingdom, and societal cynicism and social cynicism target the same content (Bond et al., 2004a, p. 566).

Different earlier research shows a negative correlation between social cynicism and job satisfaction (Leung et al., 2010). Therefore, social cynicism may impact job attitudes. More specifically, if persons report a high value of well-being, then social cynicism's adverse consequences on job satisfaction tend to be reduced (Leung et al., 2010).

### **Reward for Application**

The social axiom of reward for application emphasises effort's crucial role in overcoming difficult situations or problems. Considering the study of Zhou et al. (2009), our study may offer some information on what we understand by the distinct variables such as working hard and smart.

### **Limitations**

This study has limitations. First, the research interval for this study was 22 May 2019-1 March 2021, a period marked in early 2020 by the emergence of the Covid-19 pandemic virus and its consequences on the world's population, implicitly on participants to this study from Romania and the UK. The present study did not consider Covid-19 a variable as the virus may have influenced social axioms, psychological needs, and participants' subjective well-being.

Secondly, the preliminary discussions on Brexit and the practical separation of the UK from the European Union were not considered. In this study, we did not consider the possible Brexit effect on the Europeans and the British beliefs, implicitly on the two groups of participants from Romania and the UK.

Thirdly, the number of participants from both cultural contexts is not the same: 425 individuals from Romania and 137 from the UK. Therefore, this study has approximately three more Romanians than UK respondents. Then, the mean age of English participants is 28 years, and of Romanians is 40 years. Further research should consider a roughly equal number of participants and age mean. Social axioms tend to differ from one moment of personality development to another; For instance, younger peoples' beliefs and mature people.

Next, most participants in this study reported a high level of education, and the generality of our findings also needs to be evaluated with low levels of education participants. Also, increasing the number of UK participants could lead to better confidence in the results.

Respondents in this study were students and university graduates. We assume that participants are familiar with the academic code of conduct and understand that providing misleading or false information is not acceptable behavior. Therefore, we consider that the academic environment from which the respondents came represents the guarantee of the honesty of their answers. If our assumption is not met, then the results should be taken with additional reservations.

Religion is that dimension of belief which shows the greatest variation among nations (Leung & Bond, 2009, p. 326), and the groups in this study are not an exception. There are differences between the religion of the participants belonging to the two cultural contexts, Romania and the UK: almost all the Romanian participants (92%) declared themselves religious (for example, Orthodox, Catholic, Protestant), and 5% declared atheists and 3% declared they have no religion; less than half of the UK participants (40%) declared themselves religious (Protestant, Orthodox), 18% declared atheists and 41% declared they have no religion. Therefore, the results of this study should be taken with caution.

Furthermore, the present study's cross-sectional design limits the generalization of the results, and adopting a longitudinal design could lead to results closer to an actual situation. A longer-term perspective would bring essential information on the relationship between psychological needs, beliefs and subjective well-being. It may be an excellent opportunity to get an extra bit of understanding of the possible links between our beliefs and behavior, whatever the place on Earth we are living.

## References

- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238–246. <https://doi.org/10.1037/0033-2909.107.2.238>
- Bernardo, A. B. I. (2009). Exploring the links between social axioms and the epistemological beliefs about learning held by Filipino students. In K. Leung & M. H. Bond (Eds.), *Psychological aspects of social axioms: Understanding global belief systems* (pp. 163–176). Springer.
- Bond, M. H. (2005). A cultural-psychological model for explaining differences in social behaviour: Positioning the belief construct. In R. M. Sorrentino, D. Cohen, J. M. Olson, & M. P. Zanna (Eds.), *Culture and social behaviour. The Ontario symposium*, *10* (pp. 31–48). Lawrence Erlbaum Associates.
- Bond, M. H., Leung, K., Au, A., Tong, K.-K., de Carrasquel, S. R., Murakami, F., Yamaguchi, S., Bierbrauer, G., Singelis, T. M., Broer, M., Boen, F., Lambert, S. M., Ferreira, M. C., Noels, K. A., van Bavel, J., Safdar, S., Zhang, J., Chen, L., Solcova, I., ... Lewis, J. R. (2004a). Culture-Level Dimensions of Social Axioms and Their Correlates across 41 Cultures. *Journal of Cross-Cultural Psychology*, *35*(5), 548–570. <https://doi.org/10.1177/0022022104268388>

- Bond, M. H., Leung, K., Au, A., Tong, K.-K., Chemonges-Nielson, Z. (2004b). Combining social axioms with values in predicting social behaviours. *European Journal of Personality*, 18(3), 177-191. <https://doi.org/10.1002/per.509>
- Boomsma, A. (2000). Reporting analyses of covariance structures. *Structural Equation Modeling: A Multidisciplinary Journal*, 7(3), 461-483. [https://doi.org/10.1207/s15328007sem0703\\_6](https://doi.org/10.1207/s15328007sem0703_6)
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Sage.
- Byrne, B. M. (2009). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming* (2nd ed.). <https://doi.org/10.4324/9780203805534>
- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., Duriez, B., Lens, W., Matos, L., Mouratidis, A., Ryan, R. M., Sheldon, K. M., Soenens, B., Van Petegem, S., Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion*, 39(2), 216-236. <https://doi.org/10.1007/s11031-014-9450-1>
- Chen, S. X., Fok, H. K., Bond, M. H., & Matsumoto, D. (2006). Personality and beliefs about the world revisited: Expanding the nomological network of social axioms. *Personality and Individual Differences*, 41(2), 201-211. <https://doi.org/10.1016/j.paid.2006.01.009>
- Comunian, A. L. (2009). Social axioms in Italian culture: Relationship with locus of control and moral development. In K. Leung & M. H. Bond (Eds.), *Psychological aspects of social axioms: Understanding global belief systems* (pp.269-282). Springer.
- Cordeiro, P., Paixão, P., Lens, W., Lacante, M., & Luyckx, K. (2016). The Portuguese validation of the basic psychological need satisfaction and frustration scale: Concurrent and longitudinal relations to well-being and ill-being. *Psychologica Belgica*, 56(3), 193-209. <https://doi.org/10.5334/pb.252>
- Costa, S., Ingoglia, S., Inguglia, C., Liga, F., Lo Coco, A., & Larcán, R. (2017). Psychometric evaluation of the basic psychological need satisfaction and frustration scale (BPNSFS) in Italy. *Measurement and Evaluation in Counseling and Development*, 51(3), 193-206. <https://doi.org/10.1080/07481756.2017.1347021>
- Deci, E. L., & Ryan, R. M. (2014). The Importance of Universal Psychological Needs for Understanding Motivation in the Workplace. In M. Gagné (Ed.), *The Oxford handbook of work engagement, motivation, and self-determination theory* (pp. 13-32). Oxford University Press.
- Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227-268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer. <https://doi.org/10.1007/978-1-4899-2271-7>
- Del Valle, M., Matos, L., Díaz, A., Pérez, M. V., & Vergara, J. (2018). Psychometric properties of the psychological needs satisfaction and frustration scale (BPNSFS) in Chilean university students. *Propósitos y Representaciones*, 6(1), 301-350. <https://doi.org/10.20511/pyr2018.v6n1.202>

- Diener, E., & Seligman, M. E. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5(1), 1-31. <https://doi.org/10.1111/j.0963-7214.2004.00501001.x>
- Diener, E., & Seligman, M. E. (2002). Very happy people. *Psychological Science*, 13(1), 81-84. <https://doi.org/10.1111/1467-9280.00415>
- Diener, E., Lucas, R. E., Oishi, S. (2002a). Subjective well-being: The science of happiness and life satisfaction. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology*, (pp. 63-73). Oxford University Press.
- Diener, E., Nickerson, C., Lucas, R. E., & Sandvik, E. (2002b). Dispositional affect and job outcomes. *Social Indicators Research*, 59, 229-259. <https://doi.org/10.1023/A:1019672513984>
- Diener, E., & Suh, M. E. (1998). Subjective well-being and age: An international analysis. In K. W. Schaie & M. P. Lawton (Eds.), *Annual review of gerontology and geriatrics, Vol. 17. Focus on emotion and adult development* (pp. 304–324). Springer.
- Diener, E., Diener, M., & Diener, C. (1995b). Factors predicting the subjective well-being of nations. *Journal of Personality and Social Psychology*, 69(5), 851-864. <https://doi.org/10.1037/0022-3514.69.5.851>
- Diener, E., Suh, E. M., Smith, H., & Shao, L. (1995a). National differences in reported subjective well-being: Why do they occur? *Social Indicators Research Special Issue: Global Report on Student Well-Being*, 34(1), 7-32. <https://doi.org/10.1007/BF01078966>
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542-575. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2162125](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2162125)
- Dinca, M. & Mihalcea, A. (2011). Complexitatea socială și religiozitatea. Indicatori ai comportamentelor de grup la români – Analiză comparativă a unor comunități din Ardeal și Moldova. *Osterreichish-Rumanischer Akademischer Verein, Papers*, 2011/342. [https://EconPapers.repec.org/RePEc:ris:sphedp:2011\\_342](https://EconPapers.repec.org/RePEc:ris:sphedp:2011_342)
- Dincă, M. & Iliescu, D. (2009). Linking axioms with behavioral indicators and personality în Romania. In K. Leung & M. H. Bond (Eds.), *Psychological aspects of social axioms: Understanding global belief systems* (pp. 145-162). Springer.
- Dragolov, G., & Boehncke, K. (2015). Social axioms as mediators between culture-level and individual-level values. *Journal of Cross-Cultural Psychology*, 46(6), 772-788. <https://doi.org/10.1177%2F0022022115587027>
- Dysvik, A., Kuvaas, B., & Gagné, M. (2013). An investigation of the unique, synergistic and balanced relationships between basic psychological needs and intrinsic motivation. *Journal of Applied Social Psychology*, 43(5), 1050-1064. <https://doi.org/10.1111/jasp.12068>
- Gadermann, A. M., Guhn, M., & Zumbo, B. D. (2012). Estimating ordinal reliability for Likert-type and ordinal item response data: A conceptual, empirical, and practical guide. *Practical Assessment, Research, and Evaluation*, 17. <https://doi.org/10.7275/n560-j767>

- Guan, Y., Bond, M. H., Dinca, M., Iliescu, D. (2010). Social axioms among Romanians: Structure and demographic differences. *Romanian Journal of Applied Psychology*, 12(2), 48-53.
- Hagger, M. S., Hankonen, N., Chatzisarantis, N. L. D., Ryan, R. M. (2020). Changing behavior using self-determination theory. In Hagger, M. S., Cameron, L. D., Hamilton, K., Hankonen, N., Lintunen, T. (Eds.), *The Handbook of Behavior Change*, Cambridge University Press (pp. 104-119). <https://doi.org/10.1017/9781108677318.008>
- Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis. A regression-based approach* (2nd ed.). The Guilford Press.
- Hofstede, G. (1984). *Culture's consequences, international differences in work-related values*. Abridged edition. Sage.
- Hofstede Insights (2021, June 21). *Country comparison*. <https://www.hofstede-insights.com/country-comparison/romania,the-uk>
- Hofstede Insights (2019, August 26). *National culture*. <https://www.hofstede-insights.com/models/national-culture>
- Hu, L., & Bentler, P. M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Hui, C.-M., & Bond, M. H. (2010). Relationship between social axioms and subjective well-being: The role of self-regulation. *Journal of Psychology in Chinese Societies*, 11(1), 29-52. [https://www.researchgate.net/publication/290801200\\_Relationship\\_between\\_social\\_axioms\\_and\\_subjective\\_well-being\\_The\\_role\\_of\\_self-regulation](https://www.researchgate.net/publication/290801200_Relationship_between_social_axioms_and_subjective_well-being_The_role_of_self-regulation)
- Iliescu, D., Dincă, M., & Bond, M. H. (2017). The increment of social axioms over broad personality traits in the prediction of dyadic adjustment: An investigation across four ethnic groups. *European Journal of Personality*, 31(6), 630-641. <https://doi.org/10.1002/per.2131>
- Iliescu, D., & Sulea, C. (Eds.). (2015). *Tratat de psihodiagnostic al personalitatii* (pp. 228-230). Polirom.
- Jöreskog, K. G., & Sörbom, D. (1982). Recent Developments in Structural Equation Modeling. *Journal of Marketing Research*, 19(4), 404-416. <https://doi.org/10.1177%2F002224378201900402>
- Klassen, R., Perry, N. E., Frenzel, A. C. (2012). Teachers' relatedness with students: An underemphasised component of teachers' basic psychological needs. *Journal of Educational Psychology*, 104(1), 150-165. <https://psycnet.apa.org/doi/10.1037/a0026253>
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). Guilford Press.
- Kurman, (2011). What I do and what I think they would do: Social axioms and behaviour. *European Journal of Personality*, 25(6), 410-423. <https://doi.org/10.1002/per.801>
- Lai, H.-W. J., Bond, M. H., & Hui, N. H.-H. (2007). The role of social axioms in predicting life satisfaction: A longitudinal study in Hong Kong. *Journal of Happiness Studies: An*

- interdisciplinary forum on subjective well-being*, 8(4), 517-535.  
<https://doi.org/10.1007/s10902-006-9029-y>
- Lataster, J., Reijnders, J., Janssens, M., Simons, M., Peeters, S., Jacobs, N. (2022). Basic psychological need satisfaction and well-being across age: A cross-sectional general population study among 1709 Dutch speaking adults. *Journal of Happiness Studies: An Interdisciplinary Forum on Subjective Well-Being*, 23(5), 2259-2290.  
<https://doi.org/10.1007/s10902-021-00482-2>
- Leung, K., Li, F., & Zhou, F. (2012a). Sex differences in social cynicism across societies: The role of men's higher competitiveness and male dominance. *Journal of Cross-Cultural Psychology*, 43(7), 1152-1166.<https://doi.org/10.1177/0022022111422259>
- Leung, K., Lam, B. C., Bond, M. H., Conway, L. G., Gornick, L. J., Amponsah, B., Boehnke, K., Dragolov, G., Burgess, S. M., Golestaneh, M., Busch, H., Hofer, J., Espinosa, A. D., Fardis, M., Ismail, R., Kurman, J., Lebedeva, N., Tatarko, A. N., Sam, D. L., ... & Zhou, F. (2012b). Developing and evaluating the social axioms survey in eleven countries: Its relationship with the Five-Factor Model of personality. *Journal of Cross-Cultural Psychology*, 43(5), 833-857. <https://doi.org/10.1177/0022022111416361>
- Leung, K., Ip, O. K. M., & Leung, K-K. (2010). Social cynicism and job satisfaction: A longitudinal analysis. *Applied Psychology*, 59(2), 318-338.  
<https://doi.org/10.1111/j.1464-0597.2009.00392.x>
- Leung, K., & Bond, M. H. (Eds.). (2009). *Psychological aspects of social axioms: Understanding global belief systems*. Springer. <https://doi.org/10.1007/978-0-387-09810-4>
- Leung, K., Au, A., Huang, X., Kurman, J., Niit, T., Niit, K-K. (2007). Social Axioms and Values: A Cross-Cultural Examination. *European Journal of Personality*, 21(2), 91-111. <https://doi.org/10.1002/per.615>
- Leung, K., & Bond, M. H. (2004). Social axioms: A model for social beliefs in multi-cultural perspective. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology*, 36, 119-197. Elsevier.
- Leung, K., Bond, M. H., De Carrasquel, S. R., Muñoz, C., Hernández, M., Murakami, F., Yamaguchi, S., Bierbrauer, G., & Singelis, T. M. (2002). Social axioms: The search for universal dimensions of general beliefs about how the world functions. *Journal of Cross-Cultural Psychology*, 33(3), 286-302.  
<https://doi.org/10.1177/0022022102033003005>
- Li, F., & Leung, K. (2012). Effects of evaluation of societal conditions and work-family conflict on social cynicism and distress: A longitudinal analysis. *Journal of Applied Social Psychology*, 42(3), 717-734. <https://doi.org/10.1111/j.1559-1816.2011.00816.x>
- Li, C., Wang, Pyun, & Kee (2013). Burnout and its relations with basic psychological needs and motivation among athletes: A systematic review and meta-analysis. *Psychology of Sport and Exercise*, 14(5), 692-700.  
<http://dx.doi.org/10.1016/j.psychsport.2013.04.009>
- Liță, Ș. (2018). *Evaluarea schimbării în intervențiile psihologice - utilizarea scalei OMS-5 privind bunăstarea psihologică*. In Verza C., Mocanu N., Ghica L., Chivu M., Toma N., & Agafitei T. [Eds.] Simpozionul Național de Psihologie al Poliției Române, Psihologul



- consilier în domeniul factorului uman în organizație (pp. 57-83). Editura Ministerului Afacerilor Interne.
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2004). Unemployment Alters the Set Point for Life Satisfaction. *Psychological Science*, 15(1), 8-13. <https://doi.org/10.1111%2Fj.0963-7214.2004.01501002.x>
- Lucas, R. E., Clark, A. E., Georgellis, Y., & Diener, E. (2003). Reexamining adaptation and the set point model of happiness: Reactions to changes in marital status. *Journal of Personality and Social Psychology*, 84(3), 527-539. <https://doi.org/10.1037/0022-3514.84.3.527>
- Mak, M. C., Han, Y. M., You, J., Jin, M., & Bond, M. H. (2011). Building life satisfaction through attachment to mother and beliefs about the world: Social axioms as mediators in two cultural groups. *Mental Health, Religion & Culture*, 14(3), 223-239. <https://doi.org/10.1080/13674670903456455>
- Martela, F., & Ryan, R. M. (2016). The benefits of benevolence: Basic psychological needs, beneficence, and the enhancement of well-being. *Journal of Personality*, 84(6), 750-764. <https://doi.org/10.1111/jopy.12215>
- Milyavskaya, M., Philippe, F. L., & Koestner, R. (2013). Psychological need satisfaction across levels of experience: Their organisation and contribution to general well-being. *Journal of Research in Personality*, 47(1), 41–51. <http://dx.doi.org/10.1016/j.jrp.2012.10.013>
- Milyavskaya, M., Gingras, I., Mageau, G. A., Koestner, R., Gagnon, H., Fang, J., Boiché, J. (2009). Balance across contexts: Importance of balanced need satisfaction across various life domains. *Personality and Social Psychology Bulletin*, 35(8), 1031-1045. <https://doi.org/10.1177%2F0146167209337036>
- Mosoia, C. (2022). Particularități ale axiomelor sociale: Un studiu privind stabilitatea temporală realizat asupra unui grup de participanți români. *Revista de Psihologie*, 68(1), 51-74.
- Mosoia, C., & Dincă, M. (2020). Cinismul social – Factor mediator între trebuințele psihologice de bază și starea subiectivă de bine. Rezultate preliminare. *Revista de Psihologie*, 66(4), 311-324.
- Muthén, L.K., & Muthén, B.O. (2012). *Mplus. Statistical analysis with latent variables. User's Guide* (Version 7) [Computer software]. [https://www.statmodel.com/download/usersguide/Mplus%20user%20guide%20Ver\\_7\\_r6\\_web.pdf](https://www.statmodel.com/download/usersguide/Mplus%20user%20guide%20Ver_7_r6_web.pdf)
- Nishimura, T., & Suzuki, T. (2016). Basic psychological need satisfaction and frustration in Japan: Controlling for the Big Five personality traits. *Japanese Psychological Research* 58(4), 320-331. <https://doi.org/10.1111/jpr.12131>
- Olafsen, A. H., Deci, E., L., & Halvari, H. (2018). Basic psychological needs and work motivation: A longitudinal test of directionality, *Motivation and Emotion*, 42(2), 178-189. <https://doi.org/10.1007/s11031-017-9646-2>
- Proctor, C. (2014). Subjective Well-Being (SWB). In A. C. Michalos (Ed.), *Encyclopedia of Quality of Life and Well-Being Research* (pp. 6437-6441). Springer. [https://doi.org/10.1007/978-94-007-0753-5\\_104518](https://doi.org/10.1007/978-94-007-0753-5_104518)

- Psychiatric Research Unit, WHO Collaborating Centre in Mental Health. (n.d.). *WHO (Five) Well-Being Index (1998 version)*. WHO-5 Questionnaires. [https://www.psykiatri-regionh.dk/who-5/Documents/WHO5\\_Romanian.pdf](https://www.psykiatri-regionh.dk/who-5/Documents/WHO5_Romanian.pdf)
- Psychiatric Research Unit, WHO Collaborating Centre in Mental Health. (n.d.). *WHO (Five) Well-Being Index (1998)*. WHO-5 Questionnaires. <https://www.psykiatri-regionh.dk/who-5/Documents/WHO-5%20questionnaire%20-%20English.pdf>
- Radel, R., Pelletier, L., & Sarrazin, P. (2013). Restoration processes after need thwarting: When autonomy depends on competence. *Motivation and Emotion, 37*(2), 234-244. <https://doi.org/10.1007/s11031-012-9308-3>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. <https://doi.org/10.1037/0003-066x.55.1.68>
- Singelis, T. M., Hubbard, C., Her, P., & An, S. (2003). Convergent validation of the social axioms survey. *Personality and Individual Differences, 34*(2), 269-282. [https://doi.org/10.1016/s0191-8869\(02\)00043-0](https://doi.org/10.1016/s0191-8869(02)00043-0)
- Sheldon, K. M., & Filak, V. (2008). Manipulating autonomy, competence, and relatedness support in a game-learning context: New evidence that all three needs matter. *British Journal of Social Psychology, 47*(2), 267-283. <https://doi.org/10.1348/014466607X238797>
- Sheldon, K. M., & Niemec, C. P. (2006). It's not just the amount that counts: Balanced need satisfaction also affects well-being. *Journal of Personality and Social Psychology, 91*(2), 331-341. <https://psycnet.apa.org/doi/10.1037/0022-3514.91.2.331>
- Topp, C. W., Østergaard, S. D., Søndergaard, S. (2015). The WHO-5 Well-Being Index: A systematic review of the literature. *Psychotherapy and Psychosomatics, 84*(3), 167-176. <https://doi.org/10.1159/000376585>
- Vansteenkiste, M., Ryan, R. M., & Soenens, B. (2020). Basic psychological need theory: Advancements, critical themes, and future directions. *Motivation and Emotion, 44*(1), 1-31. <https://doi.org/10.1007/s11031-019-09818-1>
- Zhou, F., Leung, K., & Bond, M. H. (2009). Social axioms and achievement across cultures: The influence of reward for application and fate control. *Learning and Individual Differences, 19*(3), 366-371. <https://doi.org/10.1016/j.lindif.2008.11.002>