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**SOCIAL AXIOMS – MEDIATING FACTORS BETWEEN
NEEDS AND BEHAVIOURS**

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INTRODUCTION

The present research refers to social axioms, 'generalised beliefs about oneself, the social and physical environment, or the spiritual world' (Leung et al., 2002, p. 289). Social axioms are 'social' because they appear as a result of the socialisation process, and they are 'axioms' because people accept and support them without thinking about whether or not they are true (Leung & Bond, 2009, p. 2).

This research investigated the relationship between social axioms, basic psychological needs and subjective well-being as a measure of behaviour.

The study was carried out from 2019 to 2021. Questionnaires administered before and during COVID-19 gave this research the character of a natural experiment (Dunning, 2012; Thomson, 2020; Schmidt et al., 2020; Gruber et al., 2020; Mutch, 2020; Guo et al., 2022; Mansfield et al., 2022; Amato et al., 2023; Bergenholtz et al., 2023).

Cultural characteristics are associated with surprising differences in how people think, feel, and act. As a result, the present research analysed the relationships between social axioms, basic psychological needs and subjective well-being in equivalent groups of participants belonging to different cultural contexts, Romania and the UK, which gave this research an intercultural character. The criteria used for the selection of the groups were gender, age, the area where they grew up - rural or urban, level of education, marital status, whether or not they have children, whether or not they have a job, mother tongue, language spoken in the family, language performance in the mother tongue, known foreign languages, language performance in known languages.

This paper's main objective was to determine the mediating role of social axioms between basic psychological needs and subjective well-being. Based on this objective, three specific objectives emerged, and they were addressed in individual studies, namely:

O1: Determining the mediating role of social axioms (social cynicism, reward for application, social complexity, fate control, religiosity) between the satisfaction of basic psychological needs and subjective well-being.

O2: Determining the evolution of social axioms over time.

O3: Determining the role that the mother tongue has in the formation of social axioms.

This research consists of five studies: two on groups of Romanian participants and three on groups of Romanian and UK participants.

Study 1 – Analysis of social axioms, basic psychological needs and subjective well-being in a group of Romanian adult participants - was an exploratory research on the mediating

role of social axioms in the relationship between basic psychological needs and subjective well-being, regardless of age and gender.

Study 2 – Evolution of social axioms over time (22 months) on a group of Romanian participants - investigated the temporal stability of social axioms corresponding to a group of Romanian participants.

Study 3 – The effect of social axioms on the relationship between basic psychological needs and subjective well-being in two different cultural contexts - aimed to determine "if" and "how" basic psychological needs and social axioms influence behaviour, considering two equivalent groups of Romanian and UK participants.

Study 4 – Social axioms, basic psychological needs and subjective well-being from the perspective of a measure of linguistic performance in the mother tongue – investigated whether different levels of linguistic performance in the participants' mother tongue differentiate performances on axioms, needs and well-being. For this purpose, two groups of Romanian and UK adults with different mother tongues participate in this research.

Study 5 – Comparative study on social axioms, basic psychological needs, and subjective well-being of a group of Romanian and UK participants - analysed the variables comparatively before and during the COVID-19 pandemic.

Next, we present in Figure 1 the research design to validate the proposed objectives and hypotheses.

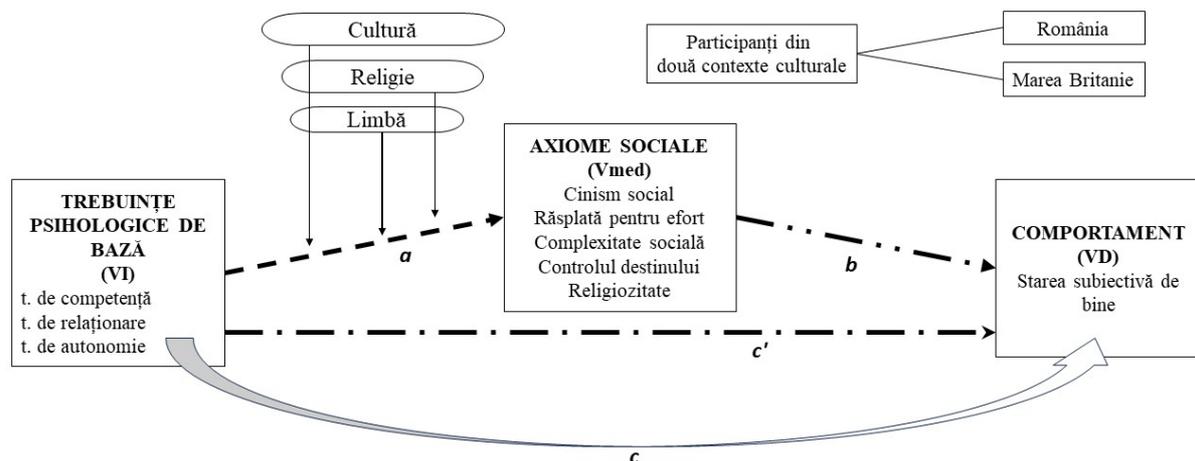


Figure 1. Research design

În Figure 1, VI represent the independent variable; Vmed, the mediating variable; VD, the dependent variable; *a*, *b*, *c* and *c'*, the coefficients of the regression equations, which we assume will demonstrate the mediating relationship between the variables. According to the

algorithm recommended by Baron and Kenny (1986), if a , b , c and c' are statistically significant and $c' < c$, then the mediation is confirmed. In this situation, the mediation effect is equal to the product $a*b$.

PART 1. THEORETICAL CONSIDERATIONS

1. Social axioms

Social axioms are generalised beliefs about people, social groups, social institutions, the environment or the spiritual world, as well as about categories of events and phenomena in the social world (Leung et al., 2002, p. 289; Leung & Bond, 2009, p. 2).

Five universal dimensions of social axioms were identified based on the analysis of data collected from participants from different cultures (Leung & Bond, 1989; Leung et al., 2002; Leung & Bond, 2004; Leung et al., 2012b): social cynicism, reward for application, social complexity, fate control, and religiosity.

Social cynicism brings together negative expectations about human nature and social events (Zhou et al., 2009, p. 366; Leung et al., 2012b, p. 834). **Social complexity** refers to beliefs in which people's behaviour differs from one situation to another, and problems have multiple solutions (Zhou et al., 2009, p. 366; Leung et al., 2012b, p. 835). **The reward for application** refers to the belief that effort, knowledge, careful planning of activities, and the use of other resources will lead to positive outcomes (Bond, 2005, p. 42; Zhou et al., 2009, p. 366; Leung et al., 2012b, p. 834). **Fate control** refers to a complex of beliefs that external, fatalistic forces predetermine life events but that people can predict and alter fate or destiny through various means (Bond, 2005, p. 42; Zhou et al., 2009, p. 366; Leung et al., 2012b, p. 835). **Religiosity** is the dimension of social axioms that support belief in supernatural forces and religious institutions (Zhou et al., 2009, p. 366; Leung et al., 2012b, p. 835, para. 1), and these institutions can influence the evolution of people.

2. Basic psychological needs

Deci and Ryan's Self-Determination Theory

Self-determination theory (SDT), a theory of motivation proposed by Edward L. Deci and Richard M. Ryan (Deci & Ryan, 1985; Deci & Ryan, 2000; Ryan & Deci, 2000), represents the theoretical foundation underlying the present research. SDT provides a general framework for the study of motivation and human personality. It focuses on people's natural tendencies to behave effectively and healthily, how sociocultural factors influence people's will, initiative and well-being, and the quality of work they do.

This study focused on a mini-theory of SDT, the theory of Basic Psychological Needs, BPNT (Ryan & Deci, 2017). Within this sub-theory is elaborated the concept of basic

psychological needs or needs (Ryan & Deci, 2000, p. 74), innate rather than learned (Deci & Ryan, 2000, p. 230), and their relationships with health and comfort or psychological well-being. Deci and Ryan argue that the satisfaction of basic or essential psychological needs (the need for competence, the need for relatedness, the need for autonomy) always leads to favourable outcomes (Deci & Ryan, 2000, p. 229), and their frustration to unfavourable outcomes (Deci & Vansteenkiste, 2004, p. 26).

The **need for competence** refers to the desire of individuals to be effective in their relationship with the environment (Deci & Vansteenkiste, 2004, p. 25). The **need for relatedness** refers to the universal and biological propensity to interact, connect with, and care for others (Deci & Vansteenkiste, 2004, p. 25). The **need for autonomy** means that the individual experiences a sense of consent and choice when acting, regardless of whether the actions are initiated independently or in response to a request from others (Deci & Vansteenkiste, 2004, p. 25).

The satisfaction of one of the three psychological needs contributes to a certain extent to the increase of subjective well-being (Tay & Diener, 2011).

Deci and Ryan's Self-Determination Theory and Maslow's theory

Deci and Ryan's Self-Determination Theory and Maslow's theory represent two different perspectives on needs. Deci & Ryan (2014) present the following three differences between the two theories: (1) Although both theories suggest the universality of psychological and physiological needs, SDT does not consider all needs in Maslow's hierarchy as basic needs but suggests that some needs are a kind of substitutes resulting from the frustration of basic needs (Deci & Ryan, 2000, p. 249); (2) SDT does not hierarchically organise basic psychological needs and claims that they are operative throughout the individual's life; (3) SDT focuses more on the degree to which psychological needs are satisfied than on the intensity of needs as the first predictor of outcomes (Deci & Ryan, 2014, pp. 15-16).

3. Subjective well-being

The subjective well-being (SWB) results from a person's cognitive and emotional evaluations about his own life (Diener et al., 2002a, p. 63). SWB has several determinants, but good mental health and positive relationships with those around are necessary conditions for this state of psychological comfort (Proctor, 2014, p. 6439). SWB is a function of the satisfaction of basic psychological needs (Reis et al., 2000, p. 420), the study suggesting that the variation of subjective well-being depends on the degree of satisfaction of the needs of autonomy, competence and relation in activities carried out by a person (Reis et al., 2000, p. 429).

PART 2. STUDIES

Participants

The total number of study participants to validate the objectives proposed in this paper was 501 Romanians and 146 British. In addition, 138 Romanian adults participated in translating and adapting the scale of satisfaction and frustration of basic psychological needs - a general measure.

Instruments

Social Axioms Survey

To evaluate social axioms, the Social Axioms Survey II questionnaire, abbreviated SAS II, was used (Leung et al., 2012b). This questionnaire contains 40 statements that reveal five dimensions of social axioms, each consisting of eight items: social cynicism, reward for application, social complexity, fate control, and religiosity. The scoring scale is a five-point Likert scale. Cronbach's alpha coefficients for the five subscales of the English version of SAS II ranged from .64 to .79 (Leung et al., 2012b). The Romanian version of SAS II consists of 40 items and has the same structure as the English version. The Romanian adaptation of SAS II was made in 2013 by Iliescu, D. and Dincă, M. (Iliescu, D., personal correspondence, September 19, 2020). Cronbach alpha coefficients on internal consistency indicate good fidelity for social cynicism (.811), reward for application (.773), fate control (.765), and religiosity (.904), and for social complexity of .672.

Basic Psychological Need Satisfaction and Frustration Scale – General measure

The basic psychological needs satisfaction and frustration scale – a general measure (Chen et al., 2015), abbreviated BPNSFS, was used to measure basic psychological needs. The scale consists of 24 items that refer to certain feelings experienced by the respondent in his daily life. Answers are rated on a 5-point Likert scale and indicate the extent to which the statement is valid for the respondent. Each of the three dimensions of the scale – competence, relatedness and autonomy – consists of four items that refer to the satisfaction and frustration of the respective need. The six subscales of the original English version of the BPNSFS have Cronbach's alpha coefficients ranging from .73 to .89 for the need satisfaction subscales and from .64 to .86 for the need frustration subscales. Therefore, the instrument has adequate internal consistency (Chen et al., 2015).

At the time of this study, a Romanian language version of the BPNSFS scale was not identified. Therefore, the translation and adaptation into Romanian were considered in a sample of 138 adult Romanian participants ($M = 44.65$, $SD = 15.25$) (Mosoia & Dincă, 2022). The scale's reliability was achieved using Cronbach's alpha internal consistency coefficients and the

polychoric correlation matrix. The values of the ordinal alpha coefficients were .9025 for the needs satisfaction scales and .9041 for the frustration scales. Exploratory factor analysis led to the extraction of six factors (Mosoia & Dincă, 2022, p. 10). A confirmatory factor analysis was performed to test the scale's factorial structure. The model was verified with goodness of fit indices ($\chi^2 = 411.195$, $p < .0001$); $df = 237$; $\chi^2/df = 1.735$; CFI = .926; TLI = .914; RMSEA = .073 (90% CI: .061-.085), WRMR = 1.019 (Mosoia & Dincă, 2022, p. 10). Thus, the Romanian version of the scale has 24 items. The validity of the scale in Romanian, abbreviated BPNSFS-Ro, was achieved by calculating Pearson correlations between the 24 scale items from the polychoric correlation matrix and the six factors that were extracted (Mosoia & Dincă, 2022). Regarding model invariance, configural invariance was achieved (RMSEA = .073; 90% CI: .061-.085 and CFI = .926).

WHO (Five) Well-Being Index (1998 version)

To measure subjective well-being, the World Health Organization (WHO) Questionnaire of the five criteria for assessing well-being, version 1998, was used (Psychiatric Research Unit, WHO Collaborating Center in Mental Health, WHO (Five) Well-Being Index, 1998 version). This self-report questionnaire consists of five questions about the respondent's recent personal well-being. The rating scale is a six-point Likert type. Cronbach's alpha internal consistency coefficients are between .86 and .90 for a European sample and between .84 and .86 for a Romanian sample (Liță, 2018). The observed internal consistency for the five items was .893, with a confidence interval of 95% level (.877, .907).

The Language Experience and Proficiency Questionnaire

The Language Experience and Proficiency Questionnaire tool, abbreviated LEAP-Q (Marian et al., 2007; Kaushanskaya et al., 2019), was used to measure language performance in the mother tongue. LEAP-Q is a self-report questionnaire that collects information about respondents' language experience and proficiency in any number of languages they speak. For each declared language known, the respondent selects his or her level of proficiency in speaking, understanding and reading on an 11-point Likert scale. The LEAP-Q has been validated in two studies on two different groups of bilingual speakers (Marian et al., 2007; Kaushanskaya et al., 2019).

In this research, the choice and use of the phrase *linguistic performance* instead of *linguistic competence* is based on Noam Chomsky's fundamental distinction between the two terms: linguistic competence is the knowledge of language by a speaker or listener. In contrast, linguistic performance represents the actual use of language in concrete situations (Chomsky, 2015, p. 2). Thus, language performance in the mother tongue was defined as the arithmetic

mean of the participants' self-assessments regarding speaking, understanding, and reading in the mother tongue.

Statistics

The statistical analysis was carried out with the help of IBM SPSS Statistics, version 26 (IBM Corp., 2019) and MPlus, version 7 (Muthén & Muthén, 2012). Testing of statistical mediation relationships was performed with PROCESS version 3.4.1 (Hayes, 2018), which was installed as an extension in the IBM SPSS Statistics program.

The mediating effect between variables was tested using the bootstrap standard errors and confidence intervals statistical procedure. Both simple mediation and parallel mediation models were tested in the data analysis. In testing the simple mediation relationships, a need was used as the independent variable (X), in turn, one social axiom as the mediating variable (M) and, each time, the dependent variable (Y), the subjective state of well-being. In testing the parallel mediation relationships, all five social axioms – social cynicism, reward for effort, social complexity, destiny control and religiosity – were used as possible mediating variables ($M_i, i = 1, 2, 3, 4, 5$) and as a predictor ($X_j, j = 1, 2, 3, 4, 5, 6$) in turn, satisfaction/frustration of the need for competence, satisfaction/frustration of the need for relatedness, satisfaction/frustration of the need for autonomy.

After checking the data's normality, the t -test for independent samples was used to evaluate the differences between the mean scores of the variables.

ANOVA method with repeated measures was used to determine whether there were differences between the average values of social beliefs obtained by the same group of participants in three consecutive time intervals. Each social axiom represented the dependent variable and time the independent variable.

3. Study 1 – Analysis of social axioms, basic psychological needs and subjective well-being in a group of Romanian adult participants

Objectives and hypotheses

This study aimed to determine the mediating role of social axioms between the satisfaction of basic psychological needs and subjective well-being. The general hypothesis was that social axioms mediate between basic psychological needs and subjective well-being.

Participants and procedure

This study was conducted between May 2019 and March 2020 on a sample of 190 Romanian adults, females (66.3%) and males, aged between 18 and 60 ($M = 40.25, SD = 11.16$).

Results

After testing the indirect effect for the 30 possible simple mediation relationships, four significant relationships resulted: three positive indirect effects corresponding to needs satisfaction (.25 for competence; .28 for relatedness; .26 for autonomy) and one negative effect corresponding to competence frustration (-.25), where social cynicism was the only mediating factor between basic psychological needs and well-being.

In the descending order of the variance in well-being, these simple mediation relationships were:

- 1) Relatedness satisfaction - Social cynicism - Subjective well-being
- 2) Autonomy satisfaction – Social cynicism – Subjective well-being
- 3) Competence satisfaction – Social cynicism – Subjective well-being
- 4) Competence frustration – Social cynicism – Subjective well-being

Results show that relatedness satisfaction and social cynicism explain the highest percentage of the variance in subjective well-being (10.98%), and competence frustration and social cynicism explain the lowest percentage (6.45 %).

Investigating the simultaneous action of the five social axioms on the relationship between needs and well-being led to the testing of parallel mediation models with five mediators. It was found that only social cynicism presents a significant mediation effect: three positive indirect effects corresponding to the facets of need satisfaction (.38 for competence; .46 for relatedness; .42 for autonomy), and three negative indirect effects corresponding to the facets of need frustration (-.38 for competence; -.54 for relatedness; -.75 for autonomy).

Discussions, conclusions, limitations

Results obtained in this study indicate that, among all the axioms, only social cynicism significantly mediates between basic psychological needs and subjective well-being. Therefore, only the hypothesis related to social cynicism is confirmed.

Limitations: This study was done without taking into account the age and gender of the participants, which is a limitation from the start.

Another limitation of this research was the educational level of the respondents. The majority of participants in this study reported a high level of education. However, to have a clearer perspective on the results, it is appropriate to investigate the relationship between basic psychological needs, social axioms and subjective well-being across groups of adult participants with low levels of education.

4. Study 2 – Evolution of social axioms over time (22 months) on a group of Romanian participants

Objectives and hypotheses

This study aimed to determine the evolution of social axioms over time (22 months). The notion of relative stability of social axioms was introduced (Mosoia, 2022, p. 55) to establish the hypotheses. A social axiom was considered relatively stable if the values of that variable in "n" consecutive time intervals were different, and the difference between the mean values was not statistically significant. The general hypothesis of this study was: "Social axioms are relatively stable over three consecutive periods of investigation." Five specific hypotheses were formulated for each social axiom - social cynicism, reward for effort, social complexity, control of destiny, and religiosity (Mosoia, 2022).

Participants and procedure

51 Romanian participants, 29 females and 22 males, aged between 18 and 94 ($M = 51.35$, $SD = 14.055$) took part in this study. The investigation period in this study was May 2019-February 2021, which is approximately 22 months. The three investigation periods were May–October 2019, May–November 2020, and November 2020–February 2021. Participants responded to the same online questionnaire administered in this study's three investigation periods. Data normality was verified by the Shapiro-Wilk test ($p > 0.5$) and by visual inspection of Q-Q normality plots.

Results

Social axioms: ANOVA with repeated measures analysis showed that the differences between the average scores of the social axioms recorded in the three-time intervals are not statistically significant. That is, the five specific hypotheses of this study are confirmed. A more in-depth analysis using the gender criterion showed some differences. The average scores of social axioms for females and males were different, and some differences are significant (Mosoia, 2022, p. 59). Female social cynicism is lower than that of males in the three investigation periods (I: $t = -1.873$, $p = .033$; II: $t = -2.649$, $p = .012$; III: $t = -1.930$, $p = .029$). In the third period in this study, female social complexity is higher than that of males (III: $t = 2.314$, $p = .025$), and religiosity is higher in males than in females (III: $t = -1.935$, $p = .029$).

Basic psychological needs: Repeated-measures ANOVA calculations show statistically significant differences only between participants' scores on relatedness satisfaction over the study time (Mosoia, 2022). Depending on the gender of the participants, significant differences were found between the average scores of the needs in the last two periods (Mosoia, 2022, p. 62). Thus, between May and November 2020, females' competence satisfaction was significantly higher ($t = 1.731, p = .045$) than that of males; females' competence frustration was significantly lower ($t = -2.115, p = .040$) than that of males; females' relatedness satisfaction was significantly higher ($t = 2.206, p = .032$) than that of males. Between November 2020 and February 2021, females' competence frustration was significantly lower ($t = -2.838, p = .007$) than that of males; females' relatedness frustration was significantly lower ($t = -2.737, p = .009$) than that of males; females' autonomy frustration was significantly lower ($t = -2.979, p = .004$) than that of males (Mosoia, 2022, p. 62).

Subjective well-being: Significant differences between the average scores of subjective well-being according to gender were registered only in the first two time intervals. Between May and October 2019, females' subjective well-being was significantly higher ($t = 2.082, p = .043$) than that of males. Between May and November 2020, females' subjective well-being was significantly higher ($t = 1.984, p = .028$) than that of males (Mosoia, 2022, p. 63).

Discussions, conclusions, limitations

The analysis of the temporal stability of social axioms on a group of 51 Romanian participants, females and males, most of them college graduates, over 22 months showed that, throughout the three-time intervals, social axioms seem to follow different trajectories depending on the gender of the participants: social cynicism in females was lower than in males; social complexity in females increased and was greater than in males; religiosity decreased, and the average religiosity score recorded by females was lower than that recorded by males (Mosoia, 2022, p. 70). Regarding basic psychological needs, significant differences were found with the onset of COVID-19 (May-November): competence frustration was higher in males than in females; relatedness satisfaction in females was higher than in males; relatedness frustration and autonomy frustration were higher in males than in females. Before and during the pandemic (May-October 2019 and May-November 2020), females' subjective well-being was significantly higher than that of males.

Limitations: Time intervals between measurements were not equal. Another limitation concerns the age (between 17 and 94 years old) of participants in this study, as social axioms tend to differ from one moment of human personality development to another. For example, the beliefs of adolescence are different from the beliefs of the individual's maturity. Therefore, the results from this study provide just an insight into the evolution of social beliefs corresponding to a heterogeneous group of participants over time. The small number of participants in this study is another limitation, with the sample consisting of only 51 participants.

Study 3 – The effect of social axioms on the relationship between basic psychological needs and subjective well-being in two different cultural contexts

Objectives and hypotheses

The objectives of this study were: 1) Investigating the mediation effect of social axioms on the relationship between basic psychological needs and subjective well-being in a group of Romanian adult participants. 2) Exploring the mediating effect of social axioms on the relationship between basic psychological needs and subjective well-being in a group of UK adult participants. 3) If there are mediation effects between variables in both cultural contexts, compare the mediation effects corresponding to the Romanian and UK participants. The hypotheses of this study were: (1) Social axioms are mediating factors between needs and well-being in the group of Romanian participants. (2) Social axioms mediate between needs and well-being in the UK participants group. (3) The mediation effect of social axioms between needs and well-being is greater in the group of Romanian participants than in the group of UK participants.

Participants and procedure

In this research – carried out between May 2019 and March 2021 – students and university graduates participated: 425 Romanian adults from Romania ($M = 40.34$, $SD = 11.235$), 286 females and 139 males, and 137 UK adults from the UK ($M = 28.24$, $SD = 10.741$), 91 females and 46 males.

Results

For the group of 425 Romanian participants, six significant simple mediation effects resulted: three positive indirect effects for need satisfaction (.18, .22, .27) and three negative effects for need frustration (-.23, -.39, -.36), $p < .0001$, with social cynicism as the only mediating factor (Mosoia & Dincă, 2022):

- (1) Autonomy satisfaction – Social cynicism – Subjective well-being
- (2) Competence satisfaction – Social cynicism – Subjective well-being

- (3) Relatedness satisfaction – Social cynicism – Subjective well-being
- (4) Competence frustration – Social cynicism – Subjective well-being
- (5) Relatedness frustration – Social cynicism – Subjective well-being
- (6) Autonomy frustration – Social cynicism – Subjective well-being

Thus, the first objective of this study was fulfilled. The results show that autonomy satisfaction and social cynicism explain the highest percentage of the variance in subjective well-being (22.05%). In comparison, autonomy frustration and social cynicism explain the lowest percentage of the well-being variance (12.73 %).

For the group of 137 UK adult participants, six significant simple mediation effects resulted: three positive (relatedness: .38; competence: .39; competence: .20) and three negative (autonomy: -.21; relatedness: -.28; competence: -.20), $p < 0.0001$, with reward for application and social cynicism as mediators (Mosoia & Dincă, 2022):

- (1) Competence frustration – Reward for application – Subjective well-being
- (2) Relatedness frustration – Reward for application – Subjective well-being
- (3) Relatedness satisfaction – Reward for application – Subjective well-being
- (4) Competence satisfaction – Reward for application – Subjective well-being
- (5) Autonomy frustration – Social cynicism – Subjective well-being
- (6) Competence satisfaction – Social cynicism – Subjective well-being

Thus, the second objective of this study was fulfilled. The higher percentage of the variance in subjective well-being (29.29%) is explained by competence frustration and the reward for application. In comparison, the lowest percentage of the variance in well-being (18.05%) is explained by competence satisfaction and social cynicism.

For both groups of Romanian and UK participants, social cynicism mediates the relationship between competence satisfaction and well-being and the relationship between autonomy frustration and well-being. Social cynicism mediates the relationship between competence satisfaction and subjective well-being, and the indirect effect is positive for the two groups of Romanian and UK participants; the mediation effect for Romanians is higher than the mediation effect for the UK participants (.22 > .20) (Mosoia & Dincă, 2022, p. 25). Social cynicism mediates the relationship between autonomy frustration and subjective well-being, and the indirect effect is negative for both groups of participants; the mediation effect for Romanians is lower than the mediation effect for the UK participants (-.36 < -.21) (Mosoia & Dincă, 2022, p. 25). Thus, the third objective of this study was also fulfilled.

Discussions, conclusions, limitations

Twelve statistically significant mediation relationships were identified in this study, six for each group of Romanian and UK participants. It was found that only social cynicism and reward for effort act as mediating factors between needs and behaviour, but it depends on the cultural context to which the participants belong: social cynicism is the only mediator for the group of Romanian participants; social cynicism and reward for application are two mediators for the group of UK participants. For both samples of Romanian and UK participants, social cynicism mediates the relationship between competence satisfaction and subjective well-being and the relationship between autonomy frustration and subjective well-being.

Limitations: In this study, COVID-19 was not considered as a variable. Also, the possible effects of Brexit on the social beliefs of Europeans, implicitly on the two groups of Romanian and UK participants, were not investigated. Another limitation is the number of participants from the two cultural contexts; the number of Romanians was three times higher than that of UK participants. Then, the average age of the UK participants was 28 years, and of the Romanian participants, it was 40 years. Further research should consider roughly equal numbers of participants and close mean ages. Most participants in this study reported a high level of education, and the generalizability of the results must also be assessed across groups of participants with lower levels of education. A long-term analysis of the relationship between basic psychological needs, social beliefs and subjective well-being would bring new information for social research laboratories.

Study 4 – Social axioms, basic psychological needs and subjective well-being from the perspective of a measure of linguistic performance in the mother tongue

Objectives and hypotheses

This study aimed to determine the role of native language performance on social axioms, basic psychological needs and subjective well-being. The general hypothesis of the present study was: "Linguistic performance in the participants' native language differentiates the social axioms, basic psychological needs and subjective well-being of the participants." The specific hypotheses of this study were: (1) Social axioms—social cynicism, reward for application, social complexity, fate control, and religiosity—are higher in participants with high language performance than in participants with low language performance. (2) The satisfaction of basic psychological needs is higher in participants with high linguistic performance in the native language than in participants with low linguistic performance in the native language. (3) Subjective well-being is higher in participants with high language performance in the mother tongue than in participants with low language performance in the mother tongue.

Participants and procedure

This study was conducted between May 22, 2019 and March 12, 2020, on a group of 190 Romanian participants aged between 18 and 60 ($M = 40.25$, $SD = 11.157$), 126 females and 64 males. Also, in a group of 37 UK adult participants aged 18–64 years ($M = 36.24$, $SD = 13.712$), 23 females and 14 males.

The level of linguistic performance in the mother tongue (PerfL1) of the Romanian and UK participants was calculated according to the formula:

$$\text{PerfL1} = \frac{1}{3} (\text{Speaking L1} + \text{Understanding L1} + \text{Reading L1})$$

Results

Two subgroups were formed in the group of **190 Romanian participants**, depending on their linguistic performance, high and low. Thus, the first subgroup consists of 98 participants ($M = 39.66$, $SD = 10.887$), 71 females and 27 males, for whom the level of linguistic performance in Romanian was high, $\text{PerfL1Ro} = 10$; the second subgroup had 92 participants ($M = 40.87$, $SD = 11.464$), 55 females and 37 males, for whom the level of linguistic performance in Romanian was low, $\text{PerfL1Ro} < 10$.

The average scores obtained by the 190 Romanian participants at social axioms, basic psychological needs and subjective well-being are approximately normally distributed. Depending on the two levels of linguistic performance and following the application of the *t*-test, the following statistically significant differences were obtained between the mean scores: *fate control* in participants with high linguistic performance was higher than in those with low linguistic performance ($t = 2.308$, $p = .022$); *social complexity* in participants with high linguistic performance was higher than those with low linguistic performance ($t = 2.027$, $p = .044$); *competence satisfaction* in participants with high language performance was higher than of those with low language performance ($t = 2.008$, $p = .046$).

Depending on the gender and the high linguistic performance of the 98 Romanian participants, the following results were obtained: females' *religiosity* was lower than that of males ($t = -2.079$, $p = .040$); females' *social cynicism* was lower than that of males ($t = -1.839$, $p = .034$); females' *competence frustration* was lower than that of males ($t = -2.256$, $p = .029$); females' *subjective well-being* was higher than that of males ($t = 2.524$, $p = .013$).

Depending on the gender and the low linguistic performance of the 92 Romanian participants, the following results were found: females' *social complexity* was higher than that of males ($t = 2.252$, $p = .027$); females' *fate control* was higher than that of males ($t = 1.699$, $p = .046$); females' *competence satisfaction* was higher than that of males ($t = 1.945$, $p = 0.027$);

females' *relatedness satisfaction* was higher than that of males ($t = 1.718, p = .044$); females' *subjective well-being* was higher than that of males ($t = 1.905, p = .030$).

In the group of **37 UK participants**, as in the group of Romanian participants, two subgroups were formed according to their linguistic performance in English. The first subgroup consisted of 24 participants ($M = 36.54, SD = 13.407$), 15 females and nine males, for whom the level of English language performance was high, $PerfL1En = 10$; the second subgroup consisted of 13 participants ($M = 35.69, SD = 14.801$), eight females and five males, for whom the level of English language performance was low, $PerfL1En < 10$.

The variables' average scores obtained by the 37 participants were approximately normally distributed. Depending on the linguistic performance, the following significant results were obtained: *relatedness frustration* of participants with high linguistic performance was lower than those with low linguistic performance ($t = 1.701, p = .049$); *subjective well-being* of participants with low linguistic performance was significantly lower than those with high linguistic performance ($t = -2.264, p = .030$).

Depending on the gender and high linguistic performance of the 24 UK participants, the following result was found: the females' *reward for application* was higher than that of males ($t = 2.546, p = .018$).

Depending on the gender and low linguistic performance of the 13 UK participants, the following result was obtained: females' *fate control* was higher than that of males ($t = 2.547, p = .027$).

Discussions, conclusions, limitations

In the case of the *Romanian participants*, high linguistic performance in Romanian is associated with high fate control, high social complexity and a more fulfilled competence satisfaction. High subjective well-being tends to be associated with high linguistic performance in Romanian. This result is a novelty.

For the *UK participants*, high English language performance was associated with low relatedness frustration relative to those with low language performance. As need frustration is the opposite facet of need satisfaction, we infer that the high English language performance of the UK participants is associated with relatedness satisfaction. Also, high linguistic performance in English is associated with high subjective well-being.

Depending on gender, females with high English language performance show a higher reward for application than males. From a low English language performance perspective, females have greater fate control than males.

Limitations: Regarding speaking, understanding and reading in the mother tongue, participants self-rated themselves, and the grade may be overestimated or underestimated. Therefore, biases could be manifested at the level of beliefs. Overcoming this situation could have been achieved using a technique that did not involve participants' self-evaluation. Another limitation of this study is the small number of the UK participants. Increasing the number of British respondents is a priority for future investigations. When writing this paper, no studies have been identified on the possible influence of linguistic performance in the mother tongue on social axioms, which constitutes a novelty and gives this research originality.

5. Study 5 – Before and during COVID-19 – Comparative study on social axioms, basic psychological needs and subjective well-being in a group of Romanian participants and a group of UK participants

Objectives and hypotheses

This study aimed to investigate and compare social axioms, basic psychological needs and subjective well-being before COVID-19 (period March 2019-March 2020) and during the manifestation of COVID-19 (March 2020-March 2021) in two groups of participants, Romanians from Romania and British from the UK. The hypotheses were: (1) Global social axiom scores before COVID-19 are lower than during COVID-19. (2) Global satisfaction scores of basic psychological needs before COVID-19 are higher than during COVID-19. (3) Global subjective well-being scores before COVID-19 are higher than during COVID-19.

Participants and procedure

Between May 2019 and March 2021, 647 Romanian and UK participants, females and males, took part in this study: 501 Romanians aged between 12 and 94 years ($M = 43.58$, $SD = 15.243$) and 146 British aged 14 to 64 years ($M = 29.05$, $SD = 12.357$). Before COVID, there were 218 Romanians (137 females and 81 males) and 41 British (25 females and 16 males); during COVID, 283 Romanians (176 females and 107 males) and 105 British (68 females and 37 males).

Quantitative and qualitative analyses were conducted, and participants answered two questions: 1) Do you think the coronavirus pandemic has changed your lifestyle? 2) If you answered yes to the previous question, please tell us how your lifestyle has changed.

Results

Romanian participants: Religiosity before COVID is lower than during COVID ($t = -1.891$, $p = .029$); *relatedness satisfaction* before COVID was lower than during COVID ($t = -3.441$, $p = .001$); females *relatedness satisfaction* before COVID was lower than during COVID

($t = -2.237, p = .026$); males *fate control* before COVID-19 was lower than during COVID-19 ($t = -3.049, p = .003$); males *religiosity* before COVID was lower than during COVID ($t = -1.660, p = .049$); males *relatedness satisfaction* before COVID was lower than during COVID ($t = -2.804, p = .006$); males *autonomy frustration* before COVID was lower than during COVID ($t = -1.871, p = .031$); females *autonomy frustration* before COVID was higher than during COVID ($t = 1.744, p = .041$).

British participants: *competence satisfaction* before COVID was higher than during COVID ($t = 2.452, p = .015$); competence frustration before COVID was lower than during COVID ($t = -2.252, p = .026$); females reward for application before COVID was higher than during COVID ($t = 2.510, p = .014$); females *competence satisfaction* before COVID was higher than during COVID ($t = 3.502, p = .001$); females *competence frustration* before COVID was lower than during COVID ($t = -2.147, p = .034$); females *subjective well-being* before COVID was higher than during COVID ($t = 2.225, p = .029$).

Qualitative analysis

In the analysis of the answers given by the Romanian and UK respondents to the two questions, seven categories of answers were identified that describe, in the opinion of the respondents, the changes caused by the coronavirus pandemic: "affects", "health", "leisure", "money", "opportunities", "socialisation", "work". For each category, the emphasis of the given answer was specified, respectively, positive (+), negative (-), neutral (\pm).

Romanian participants: To the first question, 180 participants answered affirmatively and provided details, and 97 considered that the pandemic did not cause changes in their lifestyle. The content analysis of the 180 responses suggests that the coronavirus pandemic has led to several changes in their lifestyle compared to the period before COVID-19. The most changes were manifested in terms of health (80) and socialisation (75); lifestyle changes manifested in the plane of "affects" (69); the opportunities category (50) contains answers that consider the pandemic as an opportunity for a positive and constructive approach; followed by changes in the leisure category (46), work (36) and money (8).

British participants: There were 105 responses, of which 12 denied any lifestyle change, and 93 were affirmative and gave details. The content analysis was carried out on the 93 responses. Changes occurred in terms of socialisation (67 mentions), health (45), "affects" (43), "leisure" (32), "opportunities" (26), "work" (21) and "money" (3).

Differences were found in the perspective of the impact that COVID-19 had on the Romanian and UK participants. For the Romanian participants, most of the changes concerned health and socialisation. For the UK participants, the changes were manifested first in terms of

socialisation and health. The difference between the Romanian and the UK sample was also manifested in terms of the "opportunities" and "leisure" categories: while for the Romanian participants, opportunities seem to have been more important than leisure, for the UK participants, the mentions of leisure were more often than those that targeted the opportunities category.

Discussions, conclusions, limitations

Following the quantitative analysis carried out on the two groups of Romanian and UK participants and depending on their gender, some hypotheses were confirmed, others were confirmed but in the opposite direction than assumed, and other hypotheses were not confirmed.

The results of this study showed that:

Religiosity in Romanian participants before COVID-19 was lower than during COVID-19. Depending on gender, the religiosity of Romanian male participants before COVID-19 was lower than that during COVID-19.

In the case of Romanian male participants, the belief in fate control was lower before COVID-19 than during COVID-19.

An exciting evolution is observed regarding satisfying basic psychological needs before and during the pandemic, partially confirming the proposed hypothesis. We have the following statistically significant results:

- Relatedness satisfaction of the Romanian participants was lower before COVID-19 than during COVID-19. Therefore, the hypothesis is partially confirmed but in the opposite direction than was initially assumed.

- Competence satisfaction in the UK participants before COVID-19 was higher than during COVID-19. The following significant result also reinforces this: pre-pandemic competence frustration was lower than competence frustration during the pandemic.

Depending on the gender of the participants, this hypothesis is confirmed as follows:

Competence satisfaction in UK female participants before COVID-19 was higher than during COVID-19. The following significant result also reinforces this: pre-pandemic competence frustration was lower than competence frustration during the pandemic.

Relatedness satisfaction of the Romanian participants, females and males, before COVID-19 was lower than during COVID-19, so the hypothesis is confirmed in the opposite direction than initially assumed.

Autonomy frustration of the Romanian male participants before COVID-19 was lower than during COVID-19.

Subjective well-being was higher before COVID-19 than during COVID-19 for the UK female participants.

Also, belief in reward for application was lower in UK female participants before COVID-19 compared to during the pandemic.

Two hypotheses were not confirmed in either of the two analysed Romanian or UK populations. Social cynicism and social complexity do not evolve differently with the pathology of COVID-19.

Limitations: Romanians and UK participants of different mean ages participated in this study. Thus, with an average age of 43.58 years, the Romanian participants were at the beginning of middle age (40-65 years), while the UK participants (with an average age of 29.05 years) were in the adult age category, considered to be the range of 20-40 years (Papalia et al., 2010, p. T-4). This age difference may be a limitation of this study because the two time periods represent different stages in personality development.

CONCLUSIONS

In this research, social cynicism is the only mediating factor between basic psychological needs and well-being in Romanian culture. Four indirect effects were obtained, the most prominent being registered for relatedness satisfaction and the smallest for competence frustration. The results obtained in the present study complement previous research on social cynicism. Thus, the first objective of this research was fulfilled.

The present research showed that the social axioms of a group of Romanian participants were relatively stable over 22 months. Regarding gender, females had lower social cynicism and religiosity than males but higher social complexity than males. Regarding psychological needs, frustration of competence, relatedness and autonomy were higher in males than females. Subjective well-being in females was higher than in males.

The comparative investigation of the relationships between axioms, needs and well-being in two cultural contexts showed that in the group of Romanian participants, only social cynicism acts as a mediating factor between the measured variables, and in UK participants, social cynicism and reward for effort. For both samples, social cynicism mediates the relationships between well-being and competence satisfaction and the relationship with autonomy frustration. Specific to the UK group is the mediation effect by reward for application between well-being and competence frustration and competence satisfaction; relatedness frustration and relatedness satisfaction. It was found that (i) the positive mediating effect of social cynicism on the relationship between competence satisfaction and well-being is greater in Romanians than in British; (ii) the negative mediating effect of social cynicism on the

relationship between autonomy frustration and well-being is lower for Romanians than for the UK participants. Since frustration is the opposite facet of satisfaction, we can assume that the mediating effect of social cynicism on the relationship between autonomy satisfaction is greater in Romanians than in the UK samples. However, we cannot estimate the value of the two effects.

In terms of behaviours, the relationships obtained show that, in Romanian participants:

- Social cynicism positively mediates the relationship between competence satisfaction and well-being. It seems that the positive indirect effect of social cynicism on competence satisfaction and well-being demonstrates the activation of the social cynicism facet of adapting to the social environment: people show potential for adaptive behaviour in the direction of respecting social norms and the rules within the society in which they live.

- Social cynicism mediates the relationship between competence frustration and well-being, and the mediating effect is negative. In this situation, social cynicism is amplified by competence frustration, which leads to a low state of well-being, which is demonstrated by the negative sign of the mediation relationship. The person's trust in their strength, in those around them, in institutions and authorities seems to weaken, and a general state of dissatisfaction and discouragement is established, which allows the development of critical attitudes and the establishment of sceptical realism.

- Social cynicism positively mediates the relationship between relatedness satisfaction and well-being. This relationship reveals the positive dimension of social cynicism, which protects the person and ensures his functioning with others.

- Social cynicism negatively mediates the relationship between competence frustration and well-being. In this case, social cynicism seems to maintain its negative connotation; the person no longer has internal resources for managing trust in himself, in others, and in decision-making factors, which allows the establishment of a state of discouragement.

- Social cynicism positively mediates the relationship between autonomy satisfaction and well-being. The situation described by this relationship shows that a person's social cynicism manifests as an internal mechanism of adaptation of the person to the social context and contributes to the protection of the person.

- Social cynicism negatively mediates the relationship between autonomy frustration and well-being. This relationship amplifies the negative facet of social cynicism when the person feels he no longer controls his behaviour. The person develops negative expectations about human nature and everything that happens socially. The individual lacks self-confidence, forms stereotypical views of others, and tends to view people as taking advantage of their peers.

In the UK group of participants:

- Social cynicism positively mediates the relationship between competence satisfaction and well-being. Although the two cultural contexts, Romania and the UK, are different, the relationship is similar for both cultural spaces. Thus, social cynicism for the relationship between competence satisfaction and well-being is an invariant for the participants in this study.

- Social cynicism negatively mediates the relationship between autonomy frustration and well-being. As in the previous relationship, social cynicism for the relationship between autonomy frustration and well-being is invariant for the Romanian and UK participants.

- Reward for application positively mediates the relationship between competence satisfaction and well-being. In the UK cultural context, it manifests as a mediating factor between competence satisfaction and well-being and reward for application. Thus, the belief that the effort made and the detailed planning of activities, about the person's desires to be efficient, to complete the actions they initiate, result in a positive state of well-being, demonstrated by the positive sign of mediation relationship.

- Reward for application negatively mediates the relationship between competence frustration and well-being. This relationship is the opposite of the previous one. The reward for application, under conditions of inefficiency in relationships with other people and the social environment, leads to low well-being, as demonstrated by the negative signs of the mediation.

- Reward for application positively mediates the relationship between relatedness satisfaction and well-being. In this situation, the reward for the application, given the favourable interactions with others and the individual's experience of a sense of belonging - to a group or a doctrine - leads to satisfaction and optimal functioning of the person, to good subjective well-being, demonstrated of the positive sign of the mediation relationship.

- Reward for application negatively mediates the relationship between relatedness frustration and well-being. When the need for relatedness is unsatisfied, connections and interactions with others are deficient; a person's effort to overcome difficulties contributes to low well-being.

Thus, the first objective of the present research, "Determining the mediating role of social cynicism between the satisfaction of basic psychological needs and the subjective well-being", was fulfilled for the Romanian participants: social cynicism is a mediating factor between the satisfaction of basic psychological needs and well-being, and, social cynicism is a mediating factor between the frustration of psychological needs and the subjective state of well-being. Since significant mediation relationships were also obtained for needs frustration, we conclude that social cynicism is a mediating factor between basic psychological needs and

subjective well-being. In the case of British participants, the same objective was partially met: social cynicism mediates the relationship between competence satisfaction and subjective well-being; social cynicism mediates the relationship between autonomy frustration and subjective well-being. For the UK group of participants, the second objective of this research, "Determining the mediating role of reward for effort between the satisfaction of basic psychological needs and subjective well-being", was partially fulfilled. The obtained results demonstrate the mediating effect of some social beliefs between basic psychological needs and subjective well-being in two equivalent groups of Romanian and UK participants and come as a complement to previous research on social axioms, basic psychological needs and subjective well-being well and give the present research an index of originality.

In this research, the investigation of social axioms, psychological needs and subjective well-being from the perspective of a measure of linguistic performance in the mother tongue of Romanian and British participants demonstrated that the analysed variables evolve differently depending on the language spoken, linguistic performance and gender.

The analysis of linguistic performance in the group of Romanian participants showed a positive relationship between social complexity and linguistic performance; fate control is positively related to linguistic performance in Romanian; competence satisfaction is positively related to linguistic performance in Romanian.

Within the group of Romanians with high linguistic performance, females' social cynicism, religiosity and competence frustration were lower than in males, but subjective well-being was higher than in males.

Within the group of Romanians with low linguistic performance, females' social complexity, fate control, competence satisfaction, relatedness satisfaction, and subjective well-being were higher than in males.

The analysis of linguistic performance in the UK group of participants showed that, for those with a high level of language performance, the relatedness frustration was lower than for those with low language performance. However, the subjective well-being was higher than those with a low level of linguistic performance.

Within the high language performers group of UK participants, the reward for application was greater for females than for males. Also, according to gender, but for low linguistic performance in English, female fate control was higher than in males, a similar result to that obtained by Romanian participants with low performance in Romanian.

Thus, different levels of linguistic performance in the mother tongue are associated with different scores of social axioms, and the last objective of this research has been fulfilled. The

novelty of this study consists of considering social axioms from the perspective of a measure of linguistic performance in the mother tongue of two groups of Romanian and UK participants.

In this research, the investigation of social axioms, basic psychological needs and subjective well-being before and during COVID-19 was carried out comparatively on groups of Romanian and UK participants. In the group of Romanian participants, it was found that religiosity increased during the pandemic, and depending on gender, it increased only in males. Also, fate control increased only in males. During COVID-19, compared to the previous period, relatedness satisfaction increased, and according to gender, both in females and in males, autonomy frustration increased in males and decreased in females. In UK participants, during COVID-19 compared to the pre-pandemic period, reward for application decreases only in females; competence satisfaction decreases and, depending on gender, only in females; subjective well-being decreases in females.

Following the qualitative analysis, it was found that the disease COVID-19 caused changes in the lifestyle of the participants. For the Romanian participants, health and socialisation are the first two areas where changes manifested. In contrast, the order is reversed for the UK participants, with the changes first targeting socialisation and then health.

Since the social axioms were also defined through the prism of proverbs, going through the proverbs associated with health in the two cultures could justify the axioms' different ordering. Selective consultation of volumes dedicated to Romanian proverbs (Zanne, 1895; Pann, 1975; Stănciulescu-Bârda, 2017), English proverbs, including *The Oxford Dictionary of Proverbs* (Speake & Simpson, 2008) and some dictionaries of Romanian-English (Lefter, 1978), English-Romanian (Lefter, 2006) proverbs seem to reveal differences in the approach to the health field. The approach to English proverbs or sayings led to the observation that health is valued, but it seems to be discussed alongside various aspects of life, not with life as a whole, as in the case of Romanian proverbs. In the UK context, health is linked to specific aspects of life – marriage, nutrition, illness, safety, youth, for example – and not to life as a whole. We exemplify: "Better than health, something is not." (Zanne, 1903); "Nothing better in life than good health (Zanne, 1900c); "Health is better / Than all wealth" (Pann, 1975); He who has good health is young; and he is rich who owes nothing – Who is healthy can be considered young; those who have no debts can consider themselves rich (Lefter, 2006); After dinner rest a while, after supper walk a mile (Speake & Simpson, 2008) – proverb that suggests that after the main meal of the day you should take a walk; Feed a cold and starve a fever (Speake & Simpson, 2008) suggests that starvation is an excellent remedy for fever. If our observation turns out to be correct, then the result of the present research could explain to some extent why health is the

first category in which the Romanian participants framed the changes in their lifestyles that occurred due to COVID-19.

The analysis of the relationships between basic psychological needs, social axioms and subjective well-being showed that the social axioms that act as mediating factors depend on the cultural context: for the Romanian cultural context, only social cynicism mediates the relationship between psychological needs and well-being. In the UK cultural context, social cynicism and reward for application mediate the relationship between needs and well-being (see Figure 2).

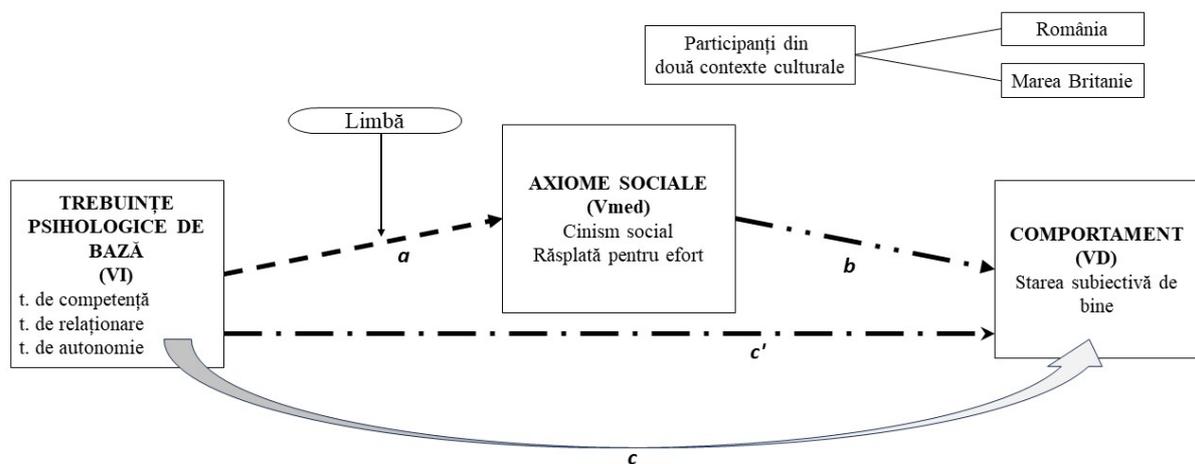


Figure 2. Final results

Limitations: During this research period, May 2019-March 2021, the emergence of the SARS-CoV-2 pandemic virus gave this investigation a specific allure. Therefore, the results obtained should only be considered with the mention that they were obtained during the COVID-19 period. Second, the preliminary discussions on Brexit and the practical separation of the United Kingdom of Great Britain and Northern Ireland from the European Union were not considered variables influencing the axioms. Third, the participants, in their vast majority, were students and college graduates, therefore representing people with a high level of education. This research did not assess social axioms, for example, in participants with low levels of education. Another limitation is given by the small number of British participants (146) compared to the number of Romanian participants (501).

Future Research Directions: As COVID-19 is no longer a global health issue, studies can be continued in periods when the risk of fatal disease does not impact individuals, and these results can be compared with those obtained during the period in which this research was conducted.

Another direction for future research could be to test the results obtained in this paper on nationally representative samples.

The investigation of social axioms on age groups younger than 18 years (in the present work, the age range was 18-94 years) is essential because social beliefs are structured during the development and structuring of the personality.

In the present study, the binary definition of gender, female and male, was used. However, recent research suggests that some individuals define themselves in a binary way (Hyde et al., 2019) and neutrally (American Psychological Association, n.d.; National Academies of Sciences Engineering and Medicine, 2022, p. 4).

Bibliography - selection

1. 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>
2. 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>. ResearchCentral, *Scala de Satisfacere și Frustrare a Trebuințelor Psihologice de Bază – Măsură generală*, traducere de Mosoia, C., 2019, <http://researchcentral.ro/index.php?action=listateste&ID=512>
3. Chomsky, N. (2015). *Aspects of the theory of syntax: 50th-anniversary edition*. MIT Press. Ediția din 1965 publicată la MIT Press.
<https://mitpress.mit.edu/9780262527408/aspects-of-the-theory-of-syntax/>
4. Dincă, 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_1-10
5. Dincă, M., & Iliescu, D. (2009). Linking Social Axioms with Behavioral Indicators and Personality în Romania. În Leung, K. & Bond, M. H. (Eds.), *Psychological aspects of*

- social axioms: Understanding global belief systems* (pp. 145-162). Springer, New York, NY. https://doi.org/10.1007/978-0-387-09810-4_9
6. Guan, Y., Bond, M. H., Dincă, M., Iliescu, D. (2010). Social axioms among Romanians: Structure and demographic differences. *Romanian Journal of Applied Psychology*, 12(2), 48-53. <https://www.rjap.psihologietm.ro/archive2010.html>
 7. Iliescu, D., Dincă, M., & Bond, M. H. (2017). The increment of social axioms over broad personality traits în 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>
 8. Leung, K., & Bond, M. H. (2009). *Psychological aspects of social axioms: Understanding global belief systems*. Springer. <https://doi.org/10.1007/978-0-387-09810-4>
 9. Liță, Ș. (2018). *Evaluarea schimbării în intervențiile psihologice - utilizarea scalei OMS-5 privind bunăstarea psihologică*. În Verza C., Mocanu N., Ghica L., Chivu M., Toma N., & Agafiței T. [Ed.] Simpozionul Național de Psihologie al Poliției Române, Psihologul – consilier în domeniul factorului uman în organizație (pp. 57-83). Editura Ministerului Afacerilor Interne.
 10. Mosoia, C. & Dincă, M. (2022). *The effect of social axioms on the relationship between needs and well-being*. În M. Klicperova-Baker & W. Friedlmeier (Ed.), *Xenophobia vs. Patriotism: Where is my Home? Proceedings from the 25th Congress of the International Association for Cross-Cultural Psychology*, https://scholarworks.gvsu.edu/iaccp_papers/295
 11. Mosoia, C. (2022). Particularități ale axiomei sociale: Un studiu privind stabilitatea temporală realizat asupra unui grup de participanți români. *Revista de Psihologie*, 68(1), 51-74. https://revistadepsihologie.ipsihologie.ro/images/revista_de_psihologie/Revista-de-psihologie-1_2022.pdf
 12. 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. https://revistadepsihologie.ipsihologie.ro/images/revista_de_psihologie/Revista-de-psihologie-nr--4_2020.pdf
 13. Neto, F. (2006). Dimensions and correlates of social axioms among a Portuguese sample. *Individual Differences Research*, 4(5), 340-351. <https://hdl.handle.net/10216/122365>

14. Ryan, R. M., & Deci, E. L. (2017). Basic Psychological Needs Theory. Satisfaction and Frustration of Autonomy, Competence, and Relatedness in Relation to Psychological Wellness and Full Functioning. In *Self-determination theory: Basic psychological needs in motivation, development, and wellness* (pp. 239-271). New York. Guilford.
15. Van de Vijver, A. J. R. (2016). The cross-cultural perspective in Romanian psychology. In *From Individual to Society – Applied Psychology for a Sustainable Community, Braşov, 22-23 September 2016* (pp. 7-14). Transilvania University of Braşov.
http://webbut2.unitbv.ro/BU2016/Series%20VII/FIS/01_Van%20de%20Vijver.pdf