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USING STATISTICAL METHODS FOR ESTIMATING STUDENTS' OPINION ON THE PURPOSE OF HUMAN LIFE

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Abstract

Currently, two anthropological models are dominant in Romania. The first is the atheistic-evolutionary model and the second is the Christian model. The purpose of this article is to assess the students' opinion on the two anthropological models and, in particular, on the purpose of human life. To that effect, there have been used the coefficients of association between the main aspects of the two models. Starting from the two outlined approaches, this paper aims to investigate the opinions of the students from two different specializations within Ovidius University of Constanta – the Faculty of Economics and the Faculty of Theology – on the issues mentioned above.

INTRODUCTION

The purpose of human life is an issue that can be addressed from several perspectives: philosophical, sociological, psychological, and theological. The identification of that purpose is achieved by a certain anthropological model [3], [9].

In Romania, before the Revolution of 1989, the concept of atheism was dominant. The purpose of life was to be compatible with dialectical and historical materialism [4], [6]. After the Revolution, religious freedom has allowed the open expression of the Christian conceptions on human composition (body and soul) and on the purpose of life.

For socialist humanism and the Marxist ethics, the important values are those that play an important thematic role in Christian ethics: love for the people, human solidarity, the meaning of life, the attitude towards death etc., but they give them another interpretation [4].

In the atheist conception, the human psyche is a result of brain function; in the Christian conception, the psyche is the manifestation of the soul in connection with the body [5], [11]. In the atheistic view, love is the result of several chemical reactions within the brain; in the Christian view, it is a state of soul. The atheistic evolutionism comes from materialism; according to the former conception, man is an evolved mammal, a soulless being which is born, matures, reproduces, grows old and dies.

Christianity brings a new vision of man as a being created by God in His image (with reason and freedom), endowed with an eternal soul [9], [11]. It is obvious that the two concepts involve two different purposes of human life.

Starting from the two outlined approaches, this paper aims to investigate the opinions of the students from two different specializations within *Ovidius* University of Constanta – the Faculty of Economics and the Faculty of Theology – on the issues mentioned above.

METHODOLOGY

The investigated statistical collectivity is represented by the students of the *Ovidius* University of Constanta; the sample was composed of 474 students, 397 from the Faculty of Economics and 77 from the Faculty of Theology, with a result guarantee probability of 95%, in the conditions of a margin of error of 5% [1].

In order to ensure the representativeness of the sample, there was used a multistage random sampling scheme, on which the investigated collectivity was segmented respecting the proportions that the groups occupy, taking into account four criteria: the respondent's sex, age, specialization and faculty. It is the best method for achieving the representativeness of the sample. The percentages used in order to determine these segments were calculated from the data taken from the *Ovidius* University website on the statistics of students.

The data processing for the centralization and systematization of information, for the calculation of the indicators describing the intensity of connections and for testing their significance was performed using the SPSS software [2].

As the questionnaire includes questions which have two possible answers, the two variables have been identified by two different classes or types [7]. For example, for the feature X , there were defined the classes P (if there is met a particular feature), and \bar{P} (if there is not met a particular feature). In these conditions, the value of this characteristic for a statistical unit is defined by:

$$x_i = \begin{cases} 1, & \text{if } X \in P \\ 0, & \text{if } X \notin P \end{cases}$$

For the n population units, there is defined the matrix $X \in M(2, n)$ that has on each column 1 or 0. If on the first line there is the modality of the characteristic to meet a feature and on the second line – the complementary modality, then, for a

specific unit, there is allotted the column vector in position i . This is defined as:

$$x_{ij} = \begin{cases} 1, & \text{if } X \in P \\ 0, & \text{if } X \notin P \end{cases}, j = \overline{1,2}.$$

The matrix $Y \in M(2, n)$ is determined similarly for to the second characteristic.

The contingency table built for the two characteristics is defined by the product of the matrix $XY' = T \in M(2,2)$. Each element of the matrix T designates an absolute frequency. For example, $T_{11} = n_{11}$ refers to the number of units in the population that simultaneously meets the two features used in order to define the two variables. The elements of the matrix T meet the following features:

$$T_{11} + T_{12} + T_{21} + T_{22} = n$$

If it is considered that there was defined a feature which provides the division of units in two classes, taking into account the characteristic X , and another feature provides the dichotomy of units for the second characteristic Z , then the group of units according to the two criteria resulted in the definition of a contingency table as it can be observed in Table no.1.

Table no.1

X/ Y	Y ₁	Y ₂	n _{i.}
X ₁	n ₁₁	n ₁₂	n _{1.}
X ₂	n ₂₁	n ₂₂	n _{2.}
n _{.j}	n _{.1}	n _{.2}	N

The contingency table

Note: table taken from i an E. (2002).[12]

The association coefficient is used to measure the dependence degree of the two variables where each characteristic is

Table no.2

The purpose of human life

The Purpose of Human Life	Frequency	Percent	Valid Percent	Cumulative Percent
Pleasure	24	5.1	5.1	5.1
Happiness on Earth	173	36.5	36.5	41.6
Communion with God and with	168	35.4	35.4	77.0

defined by two methods. The product of the effectives on the main diagonal of the contingency table designates the relationship between the two characteristics, and the product of the effectives on the secondary diagonal symbolizes the lack of the connection between variables [8].

Taking into account this observation, there are defined the following indicators for measuring the degree of association between two characteristics:

- Yule's coefficient of association

$$Q = \frac{n_{11}n_{22} - n_{21}n_{12}}{n_{11}n_{22} + n_{21}n_{12}} \in [-1,+1]$$

The value of this statistical measure is interpreted similarly to the value of the linear correlation coefficient. The more the indicator value deviates from zero, the more pronounced is the dependency between the two characteristics [12].

- The coefficient of association

$$d^2 = n \frac{(n_{11}n_{22} - n_{21}n_{12})^2}{(n_{11} + n_{12})(n_{11} + n_{21})(n_{12} + n_{22})(n_{21} + n_{22})}$$

- The coefficient of correlation

$$r_d = \sqrt{\frac{d^2}{n}} = \frac{n_{11}n_{22} - n_{21}n_{12}}{\sqrt{(n_{11} + n_{12})(n_{11} + n_{21})(n_{12} + n_{22})(n_{21} + n_{22})}}$$

This has the advantage that it is a normalized indicator with the same properties as the linear coefficient of correlation [12].

Data and results

The first question relates to the purpose of human life. As it can be observed in the centralized results in Table no.2, the following replies had the highest percentages: happiness on earth (36,5%) and communion with God and with men (35,4%).

Men				
Other Alternative	109	23.0	23.0	100.0
Total	474	100.0	100.0	

Note: Results obtained after authors processing.

It is noted that only 5,1% believes that pleasure is the goal of life; 36,5%, although they do not take the Christian position, many believe that happiness on Earth is the purpose of life, thus showing that they understand the difference

between pleasure and happiness, even in this world.

The second question concerns the existence of the soul. The centralized results in Table no.3 show that most of the students (96,4%) believe that there is soul; only 2,7% said that there is no soul.

Table no. 3
The existence of the human soul

The Existence of the Human Soul	Frequency	Percent	Valid Percent	Cumulative Percent
There is no soul	13	2,7	2,7	2,7
There is soul	457	96,4	96,4	99,2
I do not know	4	0,8	0,8	100,0
Total	474	100	100	

Note: Results obtained after authors processing.

The very high percentage of those who admit the existence of the soul may be due to the religious freedom after 1989; therefore, we believe that the atheistic propaganda of the communist era has no significant effect in this regard.

It is remarkable that, of the 24 people who believe that the purpose of life is pleasure, only 3 (12,5%) believe that there is no soul. The remaining 21 (87,5%) admit the existence of the soul. Therefore, the 21 people who admit the existence of the soul believe that the purpose of life is pleasure (and not the communion with God and with others). It is obvious that these people, although admit the existence of the soul, do not accept the orthodox Christian position on the soul and life purpose. Of the 21 people, 20 are Orthodox.

Theoretically, it would be expected that people who do not admit the existence of the soul to believe that the purpose of life is pleasure or happiness on Earth and those who admit the existence of the soul to believe that the purpose of life is the communion with God and with people. This logical correlation can be illustrated

in an association table with double entry as it can be observed in Table no. 4.

Table no. 4
The Theoretical Table of Association between the Existence of the Soul and the Purpose of Life

	Pleasure or happiness on Earth	Communion with God and with people
There is no soul	High frequency	Low frequency
There is soul	Low frequency	High frequency

Note: A logical correlation made by the authors

In this theoretical situation, the values of the association coefficients would be high, as the high frequencies are grouped on the main diagonal.

In reality, we see that 41,6% of the people believe that the purpose of life is pleasure or happiness on Earth, and 35,4% believe that the purpose of life is the communion with God and with others. The difference between these two percentages is small, and the percentage of those who

admit the existence of the soul is very high (96,4%). As it can be observed in Table no.5, these results explain the rather low values of the association coefficient.

Table no. 5

The Association Coefficients between the Existence of the Soul and the Purpose of Life

	Value	Approx. Sig.	Exact Sig.
Phi	0,078	0,135	0,154
Cramer's V	0,078	0,135	0,154
Contingency Coefficient	0,078	0,135	0,154
Valid Cases	364		

Note: Results obtained after own processing.

Table no. 6

The appearance of man

The appearance of man	Frequency	Percent	Valid Percent	Cumulative Percent
Came from apes	51	10,8	10,8	10,8
Came from an ape ancestor	59	12,4	12,4	23,2
Was created by God	356	75,1	75,1	98,3
I do not know	8	1,7	1,7	100
Total	474	100	100	

Note: Results obtained after authors processing.

The coefficients of association between the conception on the purpose of human life and the conception of human emergence are presented in Table no.7:

Table no. 7

Coefficients of Association between the Conception on the Purpose of Human Life and the Conception of Human Emergence

	Value	Approx. Sig.	Exact Sig.
Phi	0,336	0,000	0,000
Cramer's V	0,336	0,000	0,000
Contingency Coefficient	0,318	0,000	0,000
Valid Cases	360		

Note: Results obtained after authors processing.

The Sig. values = 0,135 > 0,05 indicate that there is no connection between the two variables. Therefore, at the investigated persons, the conception on the purpose of life is not related to the conception on the existence of the soul, which can be interpreted as a logical-philosophical inconsistency.

The third question relates to the appearance of man. The results from Table no.6 show that 23,2% of the students believe that man came from apes or from an ape ancestor, and 75,1% believe that man was created by God.

The Sig. values = 0,000 < 0,05 indicate that there is relationship between the two variables. The values of the association coefficients (0,336 and 0,318) indicate that the connection has a medium intensity. Most of those who believe that man was created by God have in mind, as the purpose of life, the communion with God and with men, as well as other purposes, such as: the preparation for the eternal life, salvation, the acquisition of eternal life, love, living a dignified life with the teachings of God, the contentment of having achieved what could have been achieved. Of the 51 people who believe that man came from monkeys, 25 (49,01%) believe that the purpose of human life is happiness on Earth, and 15 (29,41%) have in mind other purposes,

such as: scientific and philosophical work, continuing evolution, procreation, to be born and then to prepare for death, to go through pain and pleasure. We note that 9 of these people (17,64%) agree, however, that the purpose of life is the communion with God and with men.

Table no. 8
The Human Psyche

The human psyche	Frequency	Percent	Valid Percent	Cumulative Percent
Is a manifestation form of the brain	142	30,0	30,0	30,0
Is a manifestation form of the soul in connection to the body	326	68,8	68,8	98,7
I do not know	6	1,3	1,3	100
Total	474	100	100	

Note: Results obtained after authors processing.

The coefficients of the association between the conception on the purpose of life and the conception on the psyche are presented in Table no.9.

Table no. 9
The Association between the Conception on the Purpose of Life and the Conception on the Psyche

	Value	Approx. Sig.	Exact Sig.
Phi	0,191	0,000	0,000
Cramer's V	0,191	0,000	0,000
Contingency Coefficient	0,187	0,000	0,000
N of Valid Cases	363		

Note: Results obtained after authors processing.

The Sig. values = 0,000 < 0,05 indicate that there is relationship between the two variables. Of the 142 people who say that the psyche is a manifestation of the brain, 64 (45,07%) believe that the purpose of life is happiness on Earth, and 36 (25,35%) believe that the purpose of life is the communion with God and men. Of the 24 people who believe that the purpose of life is pleasure, 13 (54,16%) believe that the psyche is a manifestation of the brain.

The fourth question relates to the human psyche. Table no.4 shows that the majority (68,8%) believes that the psyche is a manifestation of the soul in connection with the body; 30% believe that the psyche is a manifestation of the brain.

The fifth question concerns love. The centralization of the answers in Table no.10 shows that the majority (86,9%) believes that love is a state of mind; 12,4% believe that love is the result of chemical reactions in the brain.

Table no. 10
The Concept of Love

The Concept of Love	Frequency	%	Valid %	Cumulative %
Love is the result of chemical reactions in the brain	59	12,4	12,4	12,4
Love is a mood	412	86,9	86,9	99,4
I do not know	3	0,6	0,6	100
Total	474	100	100	

Note: Results obtained after authors processing.

The coefficients of the association between the conception on the purpose of life and the concept of love are presented in Table no. 11.

Table no. 11
The Association between the Conception on the Purpose of Life and the Concept of Love

	Value	Approx. Sig.	Exact Sig.
Phi	0,206	0,000	0,000
Cramer's V	0,206	0,000	0,000
Contingency Coefficient	0,201	0,000	0,000
N of Valid Cases	363		

Note: Results obtained after authors processing.

The Sig. Values = 0,000 indicate a link between the two variables. The values of the association coefficient show that the connection has a medium intensity.

Among those who believe that love is the result of chemical reactions in the brain, 55,3% believe that the purpose of life is pleasure or happiness on Earth; only 8,9% believe that the purpose of life is the communion with God and people.

CONCLUSIONS

The anthropological model chosen by a certain person influences his/her conception on the purpose of human life. Most people who believe that man was created by God have in mind, as the purpose of life, the communion with God and with men, as well as other purposes, similar to this one. Most of those who believe that man came from monkeys admit happiness as the goal of life on Earth or other purposes consistent with this one.

The view that the psyche is a consequence of the brain function associated with the admission of happiness on Earth as the goal of life and the view that the psyche is a result of the activities of the soul are associated with the admission of the communion with God and with men as the goal of life. Most of those who believe that love is the result of chemical reactions in the brain also believe that pleasure or happiness is the purpose of life on Earth.

However, there are many people who admit the existence of the soul, but believe that pleasure or happiness is the purpose of life on Earth. There are also people who believe that the psyche is a manifestation of the brain, but admit that the purpose of life is the communion with God. These discrepancies can be interpreted as a consequence of the logical and philosophical inconsistency, and this, in turn, may be caused by the multiple information influences within the contemporary world.

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