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ICSNS XVI - 2021

**SIXTEENTH INTERNATIONAL CONFERENCE ON:
“SOCIAL AND NATURAL SCIENCES – GLOBAL CHALLENGE 2021”**

22 September

Vienna

Organized by

International Institute for Private- Commercial- and Competition Law (Austria)

in Partnership with

**Bielefeld University of Applied Sciences (Germany), Keiser University (USA),
Institute of History and Political Science of the University of Białystok (Poland)
and School of American Law (Greece)**





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Book of proceedings

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Edited by: Dr. Lena Hoffman

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A five-year retrospective study about suicides in Lezha district

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Abstract

Background: Suicidal attempts and suicides themselves constitute a very acute problem of Albanian society. Studies in our country show that the number of intentional self-poisonings has increased, especially during the last decade

This study aims to give an overview of the situation of suicide attempts and suicides by intentional self-poisoning and a history of alcohol intoxication in the region of Lezha during a 5-year period, 2016-2020.

Methods: This is a descriptive retrospective study, all the data are collected from the hospital database in the Emergency of the Lezha Regional Hospital. In total, there are 236 patients included in the study. Quantitative and qualitative methods, empirical methods, interviews and data analysis are applied in this study.

Results: The number of patients included in the study was 236. 61% were male. Males dominated in alcoholic intoxication too. The most common group age that committed intentional self-poisoning was (15-24) years old, where female predominated.

Conclusions: In last 5 year in the district of Lezha, females predominate in cases of suicide attempts and the most risked group age was young people. The toxicants used in suicidal cases were mostly the Benzodiazepine drugs, followed by Analgesics and the agricultural insecticides. Regarding the alcohol misuse, most of cases intoxicated resulted men.

Keywords: intoxication, intentional self-poisoning, drugs, alcohol.

1. Introduction

Worldwide, approximately 800,000 people commit suicide each year, and there are even more who attempt to commit this act. It is understandable that such events are tragic for the family, but also for the community or beyond. Furthermore, it brings to long-term psychological problems to individuals who perform this act. According to the WHO, suicide is the second leading global cause for the 15-19 age group (WHO, 2002), but suicide can occur during whole human life. Factors may differ ranging from social to psychological. Suicides also vary in number around the world based in the geographical criteria, but their higher numbers are counted in low incoming countries. (Amursi E, et al: 246)

According to INSTAT, in Albania, in 2020 suicide deaths accounted for 0.8% of total deaths, ranking as the 3rd leading cause of natural deaths and accidents. In the following table there is a overview of different deaths causes (firearms, hanging, strangulation, poisoning, jumping from heights, etc.) (INSTAT, 2020)

Table 1. Deaths distribution according to the cause of death in percentage (source INSTAT)

Death cause	YEAR					
	2015	2016	2017	2018	2019	2020
Natural	86.8	87.4	90.1	93.8	94.1	97.3
Accidental	2.5	2.3	2.4	2.4	2.7	1.7
Suicide	1.0	1.1	0.9	1.0	1.0	0.8
Homocide	0.4	0.4	0.3	0.3	0.3	0.2
Unknown	9.3	8.8	2.5	2.5	1.9	0

Table 2. Suicides distribution due to gender in Lezha and in Albania for a 5 year period

Variables	YEAR					
	Suicides	2016	2017	2018	2019	2020
Albania	Males	131	135	147	143	155
	Females	94	64	64	73	60
Lezha	Males	12	7	4	8	7
	Females	8	10	6	7	7

The population of Lezha region is 230,733 inhabitants. 114,500 inhabitants live in the district of Lezha, and only 31,385 inhabitants live in the city. (Office of Civil Status, Lezha)

The factors that influence the commission of suicide or attempted suicide are numerous and in order to clearly define them, in-depth studies are needed, at least in the world, some attempts have been made to identify them. (WHO, 2002). In order to be able to design a genuine strategy for suicide prevention, in-depth analysis of many factors is needed, which goes beyond the limits of this study.

In addition to the intentional self-poisoning suicide cases, in this study there are included all the cases of excessive use of alcohol, describing it as "involuntary suicide", because, even if not used as an act of self-sacrifice, excessive use has in many cases brought high toxicity in the body, often resulting in fatal to the life of the individual.

Referring to Paracelsus (1493-1541): "What is not poison? Everything is poison and there is nothing that is not. "Only the dose determines whether or not it is poison." (Fundamental principles of toxicology)

The aim of our study is to present a picture of the situation of suicide attempts and suicides through intentional self-poisoning and alcohol intoxication in the region of Lezha in the last 5 years (2015-2020), examining all age groups (except pediatric age), clarifying the most used toxicants in this city. Alcohol overdoses will be analyzed

too, as an involuntary suicide attempt. The focus was:

- Identification of the most frequently used toxicants in suicidal and / or suicidal attempts.
- Identification of age groups and gender of patients who have committed suicide and / or suicide

Material and Methods

This is a descriptive retrospective study. Data collection in this study were based in checking the registration records in the Emergency of the Lezha Regional Hospital, for the period from 01 January 2016 to 31 December 2020. In the study there are included:

- All patients over 14 years old diagnosed with acute intentional self-poisoning presented in the emergency service of Lezha Regional Hospital
- All patients over 14 years old diagnosed with alcoholic self-intoxication
- Cases accepted with the no clear diagnosis.

In total, there were 236 patients included in the study..

The study there are not include

- Cases of acute poisoning with illicit drugs
- Pediatric patients
- Cases declared EXITUS in the Emergency Department of Lezha Regional Hospital, where the cause of death was determined after forensic examination (autopsy)

Results and discussion

Total number of patients included in this study were 236, patients who were hospitalized with a diagnosis of intentional self-poisoning and alcohol intoxication, of whom 155 were with alcoholic intoxication (65.6%) and 81 were with intentional self-poisoning (34.4%).

In alcoholic intoxication, predominantly males, with 135 cases (87%).

On the other hand, in cases of intentional self-poisoning, women were the ones who prevailed with 72 cases (88.8%)

In the following tables we present the cases and age of hospitalized patients, including cases of intentional self-poisoning, as well as cases of alcohol intoxication.

Table 3. Patients distribution due to age group, gender and type of intoxication

Age group	Total number	Female	Female Drug intoxication	Female Alcoholic intoxication	Male	Male Drug intoxication	Male Alcoholic intoxication
15-24	50	21	16	5	29	2	27
25-34	47	17	15	2	30	2	28
35-44	43	14	10	4	29	2	27
45-54	35	15	9	6	20	1	19
55-64	31	11	9	2	20	1	19

65-74	19	9	8	1	10	1	9
75-84	11	5	5	0	6	0	6

Figure 1. Distribution of patients number due to age groups

Looking at the table, we notice that in women the drug intoxication is more pronounced, ie, intentional suicide. We also note that the younger age groups are the most problematic in terms of this problem (15-24 and 25-34 age groups account for 22% and 20% of suicidal cases, respectively).

On the other hand, it is the opposite of men, who have the highest cases of alcohol intoxication.

From the table, we note that the biggest abusers who have ended up in alcohol intoxication are the ages 15-24, 25-34 and 35-44 (respectively 20%; 20.7% and 20%). We also note that Suicide cases are not as pronounced as in women.

Regarding the frequency of toxicants used in suicide attempts, there are founded different therapeutical drugs and insecticides as well, as following:

Table 4. Distribution of intoxicants

Therapeutic class	Drugs	Numbes of patients
Analgesics and anti-inflammatory non steroidal	Paracetamol	15
	Aspirin	3
	Ibuprofen	3
Antiepileptic	Carbamazepine	3
Antipsychotic	Haloperidol	3
Antidepressants	Citalopram	2
Anxiolytics	Diazepam	10
	Lorazepam	8
	Alprazolam	7
Insecticide	Aluminum Phosphide	4
	Organophosphates	10
Fungicides	Cooper sulphate	1
Home use products	Detergent	3
	Corrosive substances	2
Others	Paint dye	3
Unspecified medication		4
		81 Total number

Intentional self-poisoning and alcohol intoxication are very acute problems around the globe.

The figures published annually by the WHO are alarming and the toxins used range from analgesics and anti-inflammatory drugs to psychotropics and pesticides.

236 patients were included in this study, of which 92 (39%) were female and 144 (61%) were male. The age group that had most often attempted suicide through intentional

self-poisoning was 15-24 years old which accounted for 22% of the patients admitted to the study. What was observed in this age group was the high ratio F / M 8:1. This shows that women in this age group pose a high risk of committing suicide attempts. Out of 236 patients that were taken in the study, 4 cases were fatal (death), while in 7 cases the transfer was made for more specialized treatment in Tirana hospitals. Thus, information on the health status or fatality of these 7 patients is unrealized. Other data were obtained on the drug used for suicide, referring to the admission records at the Lezha Regional Hospital, but not on the situation after the medical intervention in Tirana.

The most commonly used toxicants in suicidal cases were benzodiazepines, the most common was Diazepam (10 cases), followed by Lorazepam (8 cases) and Alprazolam (7 cases). In second place, in terms of use, are Analgesics and Non-Steroidal Inflammatory drugs, respectively Paracetamol (15 cases), Aspirin (3 cases) and Ibuprofen (5 cases). Referring to the studies, where Pesticides and Insecticides are most used in suicidal cases in Albania, we note that in the cases reviewed in our study, Insecticides are ranked third in terms of use, namely Phospho-organic (10 cases), ALP (4 cases) and Copper Sulfate (1 case).

Alcohol abuse or addiction has not been found to have a strong association with intentional self-poisoning, but what has been observed is that alcohol intoxication was predominantly male. It was observed too that patients who most often attempted to commit suicide through intentional self-poisoning belong to a younger age group. In-depth studies and analyzes are therefore needed to reveal the factors that influence these patients to develop these behaviors or perform these actions.

Conclusions

The majority of patients who attempt to self-poison are female. The most common age group is 15-24 years old. Females of this age group have a pronounced predominance over males 8:1, but also in general, the F / M ratio is 8:1.

The most commonly used toxicants in suicidal cases were the Anxiolytic drugs (Benzodiazepines), followed by Anti Inflammatory Non -Steroidal drugs and the Pesticides.

Most of the patients have used toxins that they had at home, but there are also cases when they have bought without prescriptions in the pharmacy, medicines that should be given by prescription, or various poisons in the agricultural pharmacy.

In alcohol intoxication, men predominate.

Recommendations

The following recommendations aims to help drafting policies for suicide prevention not only in the region of Lezha, but also in Albania.

Identification of the exact incidence of intentional self-poisoning in the region of Lezha, as well as analysis of risk factors are necessary for the responsible institutions to draft the plan and take measures for prevention.

Recognition of the degree of mental disorders and timely consultation to the psychiatrist is very important.

Restricting access to the most frequently used toxicants is a measure that should be

part of suicide prevention policies. Taking medicines from pharmacies, without a doctor's prescription (even in large quantities), as well as the free sale of pesticides, insecticides, or even other poisons, are phenomena that must be eliminated as soon as possible. It should be required to establish rules and enforce austerity measures for anyone who does not enforce them.

Media should be responsible, because the news about a suicide may influence people and may provoke another suicide.

There is need of more social workers or psychologists in schools, to identify in real time the stressors in children or people at risk to commit suicide attempt.

Long-term follow-up of patients who have attempted suicide.

Also, regarding the treatment of self-poisoned patients, the training of professional medical teams is needed for early identification of symptoms of acute poisoning in patients who have attempted suicide and first aid as well as the availability of antidotes and toxicological tests, which would help treat these patients and reduce hospital stays and mortality.

Awareness of alcohol toxicity.

- Finally, we can say that suicide is a very complex issue and requires the cooperation of many institutions in order to achieve a positive impact that would appear with the decrease in the number of suicidal attempts in the region of Lezha, but also in Albania.

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Opinions on geochemical properties of oils and gases in the Patos - Marine Region, Albania

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Abstract

This paper is based on recent studies conducted for the exploration and exploitation of oil deposits in the Patos – Marinez - Kolonje Monocline.

The objectives of the paper are to realize with scientific competence the geochemical properties of fluids of the Patos – Marinez - Kolonje region.

Given these, the article was conceived divided into two parts. The first part worked on the hydrogeological characteristics of the region. The region is presented with two geological units and was worked for the oil storage of the upper floor represented by the Miocene terrigenous deposits which include (Figure 1) the formations of Bubullime, Marinza (deeper formations) and Driza, Gorani, Kuçova, Polovina (shallow formation). An important place is the classification of stratified waters based on total dissolved solids

The classification of oil deposits has been carried out in accordance with the geological construction of the region. In the classification the basic elements are the sedimentation environment, the presence of bays, the presence of scales at the base of the transgression, pronounced lithological changes and the presence of asphalt caps at the highest levels of the formations.

In the second part, the geochemical characteristics of oil and associated oil gases are realized. Their interpretation related to technological processes during the exploitation of the oil field has been performed. The basic method of studying hydrocarbon gases is chromatographic one.

Keywords: Oil bedding, salt water, crude oil, API, hydrocarbon gases.

Introduction

From the interpretation of hydrogeological data obtained from drilling and especially the appropriation of wells as well as the use of bedding, it became possible to draw some conclusions on hydrogeological characteristics. The oil deposit is in the geological unit called Patos - Marine - Kolonjë Monocline. In the vertical geological section, the hydro chemical features are different and are distinguished:

1. Freshwater with total dissolved solids up to 1 gr / l
2. Slightly salty waters with total dissolved solids 1.3 - 1.5 gr / l
3. Salty waters with total dissolved solids 3-10 gr / l

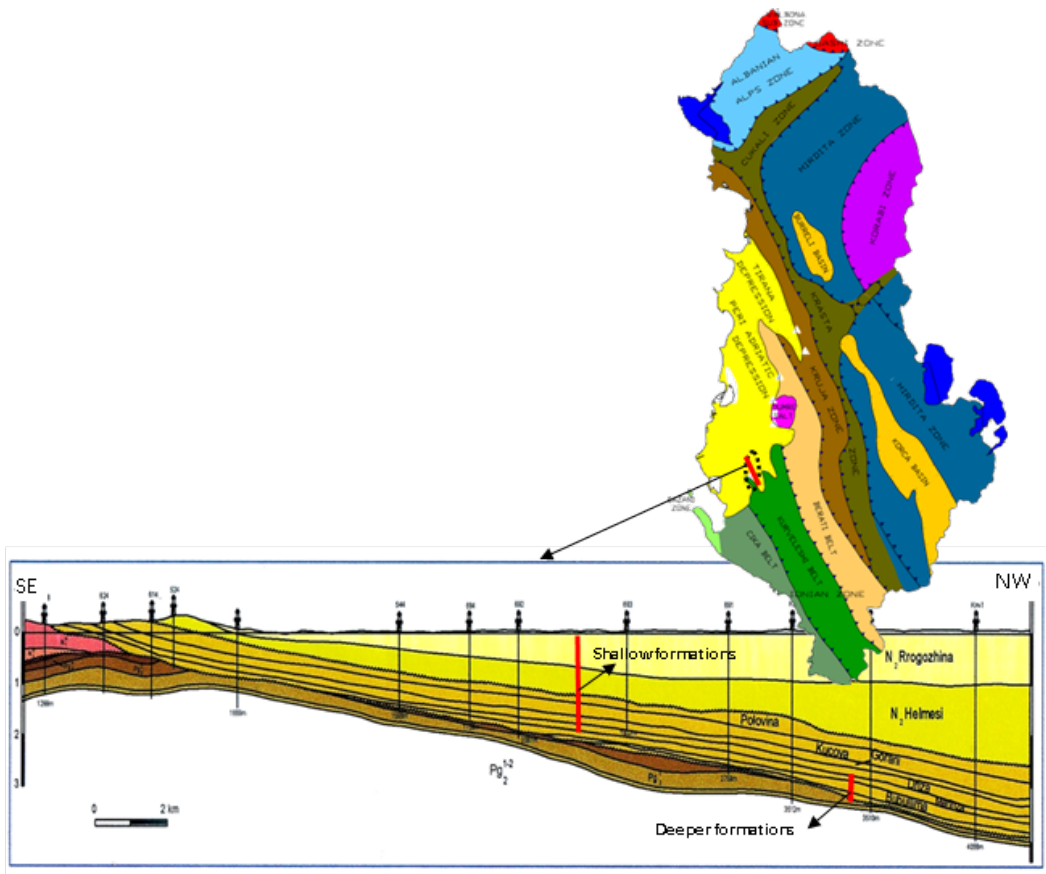


Figure 1. Longitudinal schematic geological profile in the Patos – Marinez – Kolonje Monocline

2. Density

Petroleum density has been replaced by API according to the formula. The decrease in density (or increase in API) is consistent with the decrease in asphaltene content.

$$API = 141.5 / D - 131.5$$

According to API, the oils produced during the last years in the Patos - Marinez field are classified into four groups which are equivalent to the types of oils (Figure 2):

1. Very light oils: $API > 25$
2. Light oils: $16 < API < 25$
3. Heavy oils: $API < 16$
4. Very heavy oils (almost bitumen in sand reservoirs: $API < 10$)

Figure 2. API of produced crude oils in the Patos-Marine region

Viscosity of oil

The density of the oil is correlated with the dynamic viscosity at 30°C. From this correlation, the oil produced after the treatments has a high viscosity that matches $API < 10$.

From low values up to $API = 10$ there is a rapid decrease in viscosity (Figure 2). After this threshold the viscosity is low and changes very little. Even in this case the high

viscosity values are affected by the heavy oils that are extracted together with the sand grains from the natural reservoir.

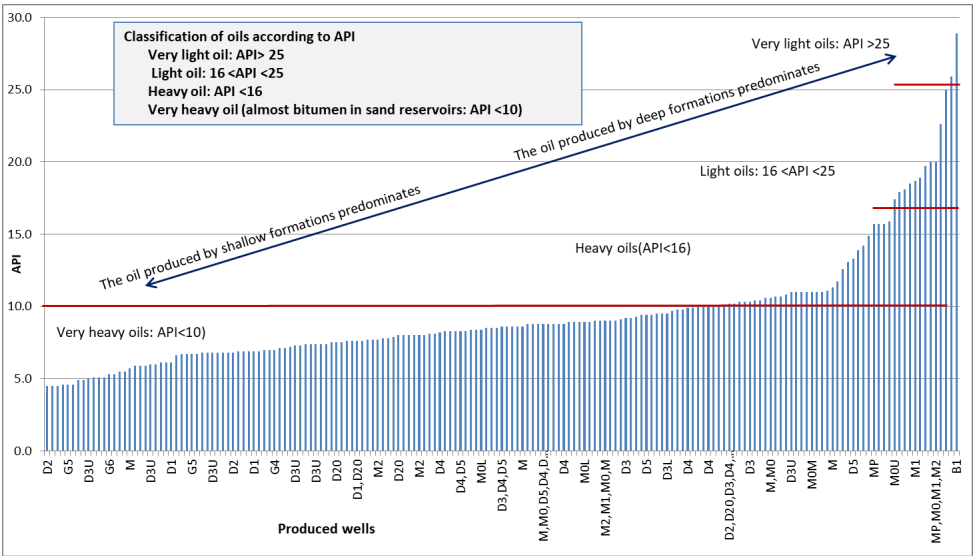
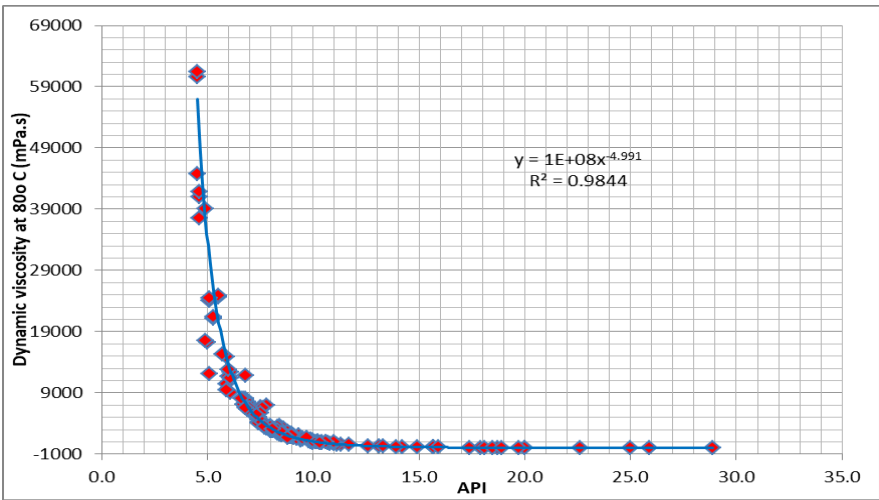


Figure 3. API dependence on viscosity at 30°C

4. Hydrocarbon gas



The associated petroleum gases were analyzed by the gas chromatographic method. Their analysis goes through two stages:

- Determination of the hydrocarbon composition of the gas sample by means of ionization flame detector (FID). Hydrocarbon components are represented by methane (CH₄) to n-heptane (C₇H₁₆). Gas chromatograms give the time of exit from

the capillary column for each gas component (in the form of points).

b. Determination of non-hydrocarbon composition of the sample of gases such as CO₂, H₂S, O₂, N₂, etc. through the thermo conductor detector. The same criterion is followed as in the above case. Figure 4. Gas chromatograms of a gas sample (shallow formation).

Figure 5. The result of the hydrocarbon and non-hydrocarbon composition of the gas sample in the shallow formation presented in the final analysis report (fatty hydrocarbon gas)

Types of hydrocarbon gases

The types of hydrocarbon gases are distinguished by the ratios C₁ / C₂ and C₁ / C₂ + which are the methane / ethane ratios and the methane / ethane sum and heavier ratios.

Figure 6. Types of hydrocarbon gases by means of C₁ / C₂ and C₁ / C₂ +

Data File C:\Chem32\2\Data\2016_01\5014-GOR 2016-01-05 16-03-24.D							
Sample Name: 5014-GOR							
RetTime	Sig	Type	Area	Amt/Area	Amount	Grp	Name
[min]					[mole%]		
-----	--	-----	-----	-----	-----	--	-----
0.754	3	VV	440.88477	4.53083e-4	1.99757e-1		oxygen/nitrogen
2.031	3	BB	3.41224e4	3.91886e-4	13.37209		carbon dioxide
3.656	1	BB S	1.66553e4	4.85489e-3	80.85949		methane
3.768	1	BB X	839.92908	2.48285e-3	2.08542		ethane
3.987	1	BB	430.08307	1.67348e-3	7.19736e-1		propane
4.294	1	BB	279.34265	1.25015e-3	3.49221e-1		iso-butane
4.539	1	BV	359.47244	1.24911e-3	4.49019e-1		n-butane
4.664	1	VB	5.34602	9.81177e-4	5.24539e-3		neopentane
5.379	1	BB	361.00162	1.00238e-3	3.61860e-1		iso-pentane
5.793	1	BV	268.15051	1.00877e-3	2.70502e-1		n-pentane
7.196	1	VV +	276.26462	1.91410e-3	5.28798e-1		Iso-hexanes
7.239	3		-	-	-		hydrogen sulfide
8.610	1	VB	147.83760	8.33650e-4	1.23245e-1		n-hexane
10.476	1	VB +	357.52338	7.86539e-4	2.81206e-1		Iso-heptanes
12.334	1	BB	42.72167	7.86539e-4	3.36023e-2		n-heptane
Totals :					99.63919		
2 Warnings or Errors :							
Warning : Calibration warnings (see calibration table listing)							
Warning : Calibrated compound(s) not found							
=====							
*** End of Report ***							

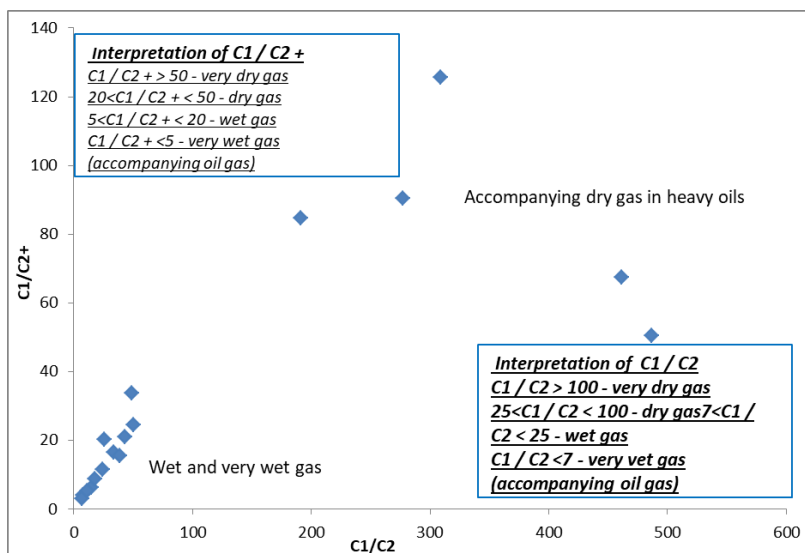
According to indicator C₁ / C₂ the following types of gases are divided:

C₁ / C₂ > 100 - very dry gas

25 < C₁ / C₂ < 100 - dry gas

7 < C₁ / C₂ < 25 - fatty gas

C₁ / C₂ < 7 - very fatty gas (associated gas oil)



According to the indicator $C1 / C2 +$ the following types of gases are divided:

$C1 / C2 + > 50$ - very dry gas

$20 < C1 / C2 + < 50$ - dry gas

$5 < C1 / C2 + < 20$ - fatty gas

$C1 / C2 + < 5$ - very fatty gas (associated gas oil).

Heavy oils are associated with very dry hydrocarbon gases and is characteristic of shallow form oils while high fatty hydrocarbons are associated with normal deep formation oils.

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Evaluation of Cow milk quality according to Physicochemical parameters and antibiotic residues

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Abstract

Milk has a great economic impact being an important factor of human food production and nutrition. Milk is obtained from cows, buffalos, sheep, goats, camels and donkeys, but cows' milk production predominates. Different types of antibiotics are being used worldwide in the veterinary sector for both therapeutic and prophylactic purposes. The presence of antibiotic residues in milk causes serious health problems for consumers.

Physicochemical analysis is an important tool that monitors the milks' quality. The aim of this study was to evaluate the quality of milks' physicochemical parameters (density, acidity, pH, added water, lactose etc.) to pasteurized and sterilized cow's milk. The samples were collected randomly in different markets in Tirana. The physicochemical parameters were measurement with Lactoscan milk analyzers and conventional methods. Also, the antibiotic residues in milk samples were evaluated by rapid tests. Physicochemical parameters and antibiotic residues were measured in duplicates.

The values of the physicochemical parameters obtained by both methods were compared, and the milk composition was evaluated according to FAO standards. Some of the samples have a small deviation from the FAO standard values of milk composition, but sterilized milk samples have better results in physicochemical parameters than pasteurized milk samples. Only one of the milk samples resulted positive with antibiotic residues.

Most of the milk samples that were analyzed resulted with good quality for physicochemical parameters and free from antibiotic residues. The results showed that most milk samples are safe, but the necessity of performing such tests for antibiotic residues is necessary, for human health and milk processing.

Keywords: milk quality, physicochemical parameters, antibiotics residues.

Introduction

Food products of animal origin play an important role in sufficient and balanced nutrition of human beings. Milk and milk products are among the most important food products of animal origin [1]. Fresh milk contains all the essential nutrients as lactose, fat, protein, minerals and vitamins in balanced ratio rather than other food [2]. The quality of milk as well as its safety in the consumption depends on its chemical composition, microbiological, physical and organoleptic properties. A satisfactory quality of milk means it is high in nutritional value and that it is free of any forms of bodies and of foreign constituents which can cause diseases [3]. The quality of milk is the primary factor that determines the quality of its products. Physicochemical analysis constitutes an important device that monitors its quality. The production

of high quality milk and keeping the herd in good health are the main objectives in primary milk production [4].

Since alkaline phosphatase is stable to temperatures slightly higher than those required to destroy milk pathogens, the control of the activity of this enzyme is the most important indicator for evaluating the hygienic safety of pasteurized milk. This means that pasteurized milk must be negative for the phosphatase test [5].

Milk and other dairy products, which contain drug residues beyond the maximum residue limits (MRL), causes serious health problems of the consumers [6]. The presence of antibiotic residues inhibit lactic bacteria from cultures used in fermentation process of yoghurt and cheese [7]. To prevent these problems, the dairy industry is interested in screening incoming milk to ensure that levels of antibiotic residues are not exceeding the safe levels of MRLs set by European Union (EU) [8].

1. Materials And Methods

1.1. Sample collection

To study the physicochemical characteristics of cow's milk, a total of 18 samples of cow's milk (local production and import) were collected in Tirana markets in April-May 2021. Out of the 18 samples, 10 samples were pasteurized milk in plastic packaging and 8 samples were sterilized milk in Tetra Pak packaging. Some of the samples of pasteurized milk were taken from the same production company, but one sample was taken in April and the other in May, so with different production lots.

1.2. Physicochemical Properties of Milk

a) Physicochemical parameters measurement with milk analyzer

All collected samples were analyzed for physicochemical parameters with Lactoscan milk analyzer. This apparatus measures some characteristics of milk such as: density, fat, non-fat solids, lactose, protein and water content. The milk analyzer is simple to use, fast and low cost, it also requires a small sample quantity.

b) Physicochemical parameters measurement with conventional methods

Determination of temperature and pH

The temperature and pH value of the milk samples was determined by portable pH meter (Testo 205, Germany) (AOAC, 2005). The pH meter was firstly calibrated using buffers of pH 7.0 and 4.0 each time before the pH of milk sample was measured.

Titrateable acidity

Titrateable acidity of the milk samples was determined according to the method of the Association of Official Analytical Chemists (no. 947.05; AOAC, 1990). Nine ml of milk sample was pipetted into an Erlenmeyer flask and 3 to 5 drops of 1 % phenolphthalein indicator was added to it. The milk sample was then titrated with 0.1N NaOH solution until a faint pink color persisted. The titrateable acidity, expressed as % lactic acid, was finally calculated using the following formula.

$$\text{Titrateable acidity (\%)} = \frac{0.1\text{N NaOH (ml)} \times 0.9}{\text{Weight of milk sample}}$$

Specific gravity

Milk samples were filled sufficiently into a glass cylinder (100 ml capacity). Then lactometer was held by the tip and inserted into the milk. The lactometer with thermometer was allowed to float freely until it reaches equilibrium. Then the

lactometer reading at the lower meniscus was recorded. Milk temperature was also read and recorded (O, Mahoney, 1998). The following formula was used to calculate the specific gravity of the milk.

$$\text{Specific gravity} = (\text{CRL}/1000) + 1$$

Where, CRL = Corrected Lactometer Reading at a given temperature, i.e., for every degree above 60 °F, 0.2 was added to the lactometer reading but for every degree below 60 °F, 0.2 was subtracted from the lactometer reading.

Fat content

The fat content was determined by the Gerber method according to [11]. Ten ml of sulfuric acid (density 1.815 gm/ml at 20°C) was pipetted into a butyrometer. Then eleven ml of milk sample was added into the butyrometer and mixed with the sulphuric acid. This was followed by addition of 1 ml amyl alcohol into the butyrometer which was then closed with a lock stopper. Then the mixture was shaken and inverted several times until the milk was completely digested by the acid. Finally, the butyrometer was kept in water bath for 5 minutes at 65 °C and centrifuged in a Gerber centrifuge (Astori, Italy) for 5 minutes. The butyrometer was placed in water bath again at 65 °C for 5 minutes. At the end, the butyrometer reading was recorded.

1.3. Determination of alkaline phosphatase in cow's milk by rapid test

For a quick check of correct pasteurization of milk is a valuable auxiliary a rapid test as Phosphatesmo MI (Macherey-Nagel, Germany). This test has a limit of sensitivity: 0.5 % raw milk in pasteurized milk. This test was performed on all samples with pasteurized milk according to the procedure: 1. Dip test strip briefly into the milk. 2. Shake off excess liquid.

3. In order to prevent the test pad of the test strip from drying out, place the test strip in the enclosed PE bag. Use a new bag for each test to avoid cross-over contamination.

4. Incubate the test strip at 36 °C for 1 h.

In the presence of alkaline phosphatase, the test field turns yellow. For control measurement use raw milk and heated milk. A yellow coloration indicates that raw milk is present, or the milk was not sufficiently heated. No coloration indicates that the pasteurization was correctly completed.

1.4. Determination of the presence of antibiotic residues

To detect both beta-lactam and tetracycline antibiotic residues in cow's milk, was used the AuroFlow™ BT Combo Strip Test (Perkin Elmer), that realizes a qualitative and rapid lateral flow assay. These rapid tests detect 14 beta-lactam antibiotics and 3 tetracyclines in milk at or below EU and CODEX Maximum Residue Limits (MRL).

Test Procedure:

1. Take with pipette 200 µL milk and throw milk sample into the well. Using the same pipette tip, aspirate the sample up and down about 10 times to completely dissolve the lyophilized reaction particles in the milk.

2. Incubate for 3 minutes at ambient temperature (25°C +/- 5).

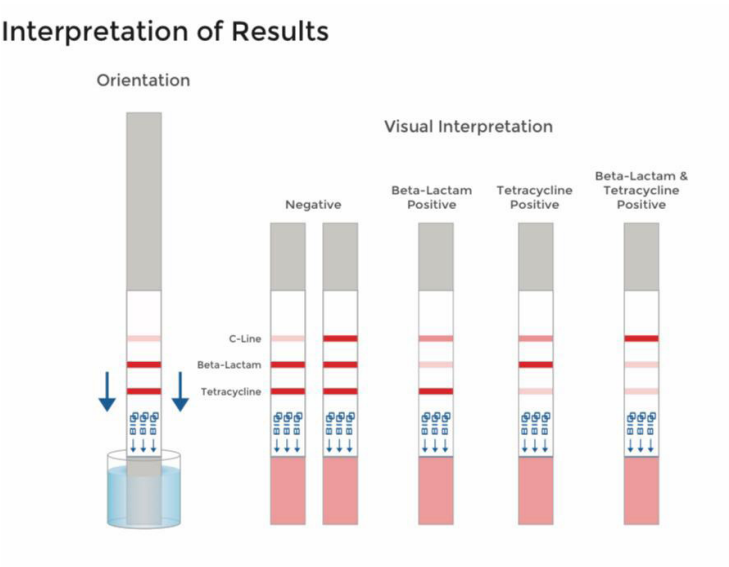
3. After 3 minutes, insert the bottom of the test strip into the well containing the milk sample with arrows pointing down.

4. Incubate for 4 minutes at ambient temperature (25°C +/- 5).

5. Remove the strip and place it on a horizontal surface with the unmarked side facing

up and remove the sample pad from the strip.

6. Immediately interpret the results of the test visually by comparing the intensities of the test line and control line (see Fig. 1).



For visual interpretation, when the signal at the T-line is more intense than the signal at the C-line, the milk sample is negative for presence of residues. A signal at the T-line which is equal to or less intense than the signal at the C-line indicates a contaminated milk sample.

Figure 1. Test strip orientation and test interpretation

2. Results and discussion

2.1. Results after analysis by Lactoscan milk analyzer

The physicochemical properties of pasteurized milk collected are shown in Fig. 2. All parameters are in %, except density.

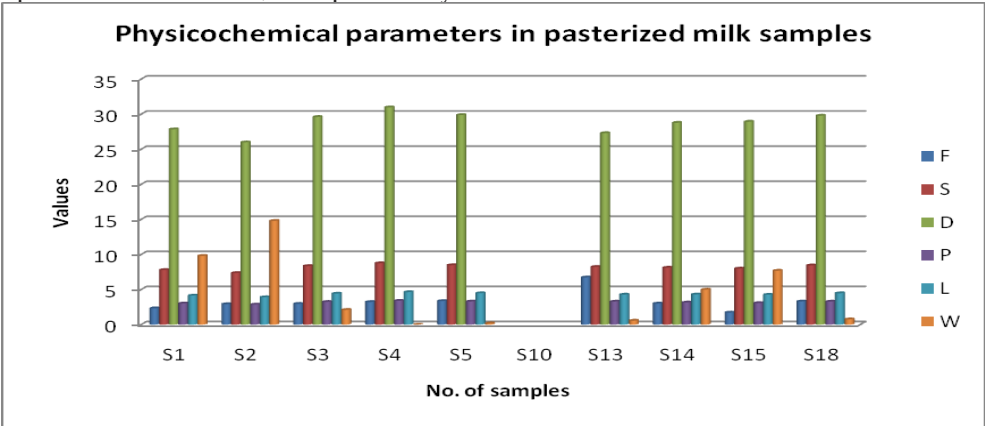


Figure 2. Physicochemical parameters of pasteurized milk by Lactoscan milk analyzer

As can be seen from Fig.2., the sample 10 with the Lactoscan apparatus did not produce results. This is because immediately after opening, the milk of this sample began to thicken and change its physical parameters. The milk acquired an unpleasant odor which intensified over time. The viscosity increased and the milk gained a semi-solid consistency, the reason why the apparatus failed to read any data. Sample 10 turned out to be spoiled milk, even though it had a regular expiration date.

Sample 2 results in the highest percentage of added water (14.8%), followed by samples 1 and 15, with 9.8% and 7.69%, respectively. Of course it is expected that sample 2 has the lowest value of density, which was expressed even in the lowest values of lactose, protein, and fatty solids. While the sample with the highest value of density, protein and lactose resulted sample 4, followed by M5 and M13.

The parameter that is noticed to differ the most between the samples is W-added water, the other parameters have small differences.

The physicochemical properties of sterilized milk collected are shown in Fig. 3. All parameters are in %, except density.

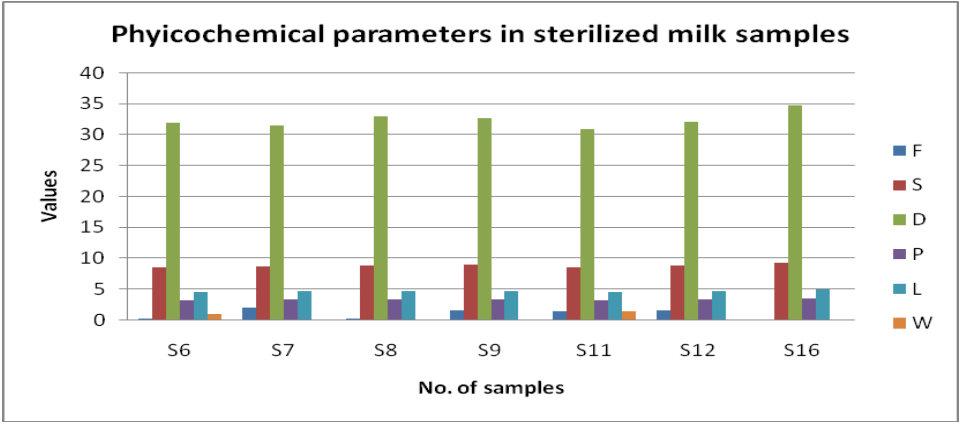


Figure 3. Physicochemical parameters of sterilized milk by Lactoscan milk analyzer. For samples of sterilized milk, we note that sample No. 17 results in the highest value of added water (5.38%) and as expected with the lowest value of density. In this sample we also notice the highest concentration of fat (4.37%) and the lowest value for non-fatty solids ($S = 8.03\%$). Other samples result in very low% of added water, i.e., almost no added water. The values of the other parameters are approximate in almost all sterilized milks, except for sample 17. As noted the parameters that different most between the samples are W-added water and F-fat, the other parameters have small differences.

2.2. Comparison of physicochemical parameters with standards for cow's milk

For the physicochemical parameters that we have analyzed from the milk samples, FAO has set certain ranges, which a cow's milk must have to be of quality for the consumer. In table 1 presents the values that the physicochemical parameters of cow's milk must have to be qualitative. Comparing the results obtained from samples of pasteurized milk with the values of the parameters in Table 1, we see that:

Table 1. Values of physico-chemical parameters that quality cow's milk must have

Para-metrs	F %	SNF%	D kg/m ³	P%	L%	Water %	pH	Acidity %
Values	3.1-3.3	8.43-10.14	27 -33	3.2-3.4	4.5-5.1	87.3–88.1	6.6-6.7	0.12-0.19

- Sample 2 results in the sample with the largest deviation from the standard values of cow's milk for all the analyzed parameters, followed by samples 1 and 15, which are the products of the same production company.

- Sample 4 of all pasteurized milk that we analyzed results in samples with values closer to the parameters of quality milk, and consequently we conclude that this is the highest quality milk. Followed by samples 5, 18 and 13 (is from the same manufacturing firm as S4), which have high values of the analyzed parameters.

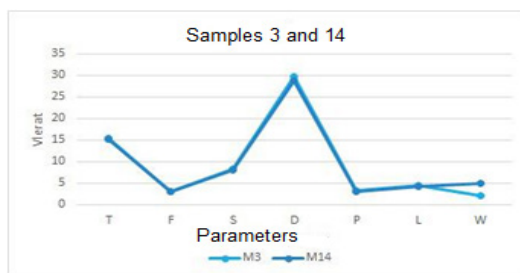
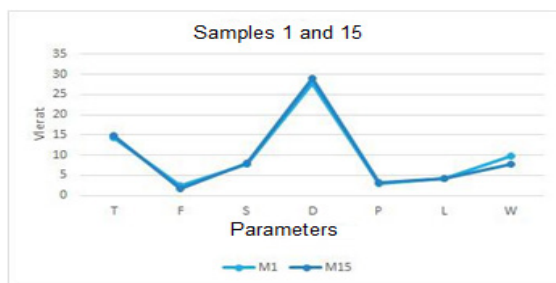
Comparing the results obtained from samples of sterilized milk with these parameter values in Table 1, we see that:

- Sample 17 results in the sample with the largest deviation from the standard values of cow's milk for all the analyzed parameters, followed by sample 11.

- Sample 16 of all sterilized milk that we analyzed, results in samples with values closer to the parameters of quality milk, and consequently we conclude that this is the highest quality milk. Followed by samples 8 (is from the same production company), 9 and 12.

2.3. Comparison of physicochemical parameters for samples from the same production company

In the selection of samples we took two samples from the same production company, but they were with different production lots. The following graphic compares the physicochemical parameters for each of the pairs taken from the same manufacturing company.



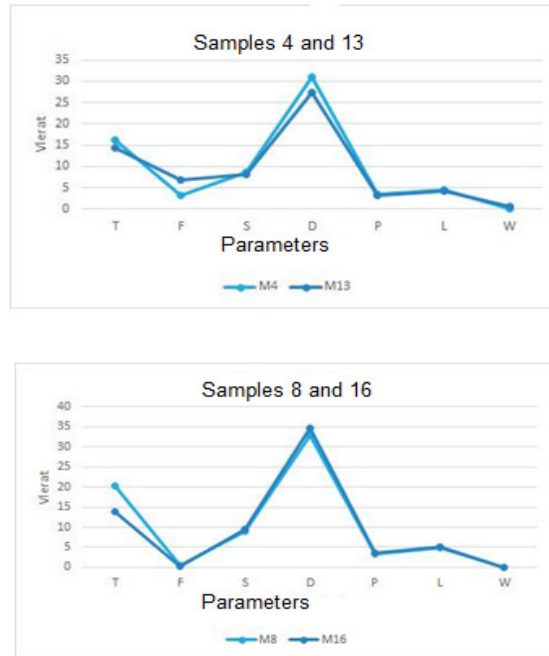


Figure 4. Comparison of sample parameters from the same manufacturing company. As noted, we have a high compatibility of the parameters in the samples from the same production company. Deviation is observed only in added water values for S1 and S15; S3 and S14. Also, for the value of fat, density, and temperature in cases S4 and S13; S8 and S16 deviations are small and acceptable.

2.4. Chemicals parameters measurement by conventional methods

Some of the chemicals parameters were measured by traditional methods such as: acidity, pH, specific gravity and fat. The values of these parameters are given in the table 2 and 3 for pasteurized and sterilized milk samples, respectively.

Table 2. Chemicals parameters of pasteurized milk by conventional methods

	Conventional method			LCS	Conventional method	LCS	in packaging
Samples	Acidity	pH	Specific gravity	Specific gravity	Fat	Fat	Fat
M1	0.13	7.06	1.034	1.028	2	2.34	NA
M2	0.15	6.44	1.031	1.026	3	2.92	2.8
M3	0.13	6.87	1.035	1.030	3	2.97	2.6
M4	0.14	6.81	1.036	1.032	2.5	3.23	2.5
M5	0.17	6.14	1.034	1.031	2.5	3.37	2.5
M10	0.61	4.71	1.026	-	-	-	1.5
M13	0.14	7.15	1.034	1.028	1.5	1.73	1.6

M14	0.13	6.66	1.035	1.030	2	3.01	2.5
M15	0.13	6.55	1.035	1.031	2	1.72	NA
M18	0.11	6.62	1.034	1.032	3	3.31	NA

In pasteurized and sterilized milk samples: the measured values of acidity vary around 0.11-0.17% and pH 6.14-7.15, except for sample 10 (0.61% and pH 4.71), which was expected to have high acidity, because the milk was spoiled. Normal values of titratable acidity and optimum pH in cow's milk vary around 0.12-0.19% and 6.6-6.7. It is noticed that all specific gravity values measured with Lactoscan are slightly higher than the value measured with lactometer, with a difference in measurement from 0-0.12 units, but have almost the same difference in all samples between the two methods of different.

Table 3. Chemical parameters of sterilized milk by conventional methods

	Conventional method			LCS	Conventional method	LCS	in packaging
Samples	Acidity	pH	Specific gravity	Specific gravity	Fat	Fat	Fat
M6	0.11	6.74	1.033	1.033	0.5	0.26	1.5
M7	0.11	6.78	1.035	1.033	0.5	2.00	1.6
M8	0.11	6.78	1.036	1.034	-	0.36	0.5
M9	0.12	6.73	1.037	1.033	1	1.57	1.9
M11	0.12	6.46	1.035	1.031	-	1.52	1.5
M12	0.12	6.43	1.034	1.032	2	1.63	1.6
M16	0.14	6.45	1.034	1.030	4	3.01	3.2
M17	0.15	6.48	1.037	1.025	-	0.17	0.5

There are differences in the fat content values measured with Lactoscan, butyrometer and the value placed on the package. In samples 4, 5 and 16 the measurement with butyrometer was closer to the value of the label, while in samples 7, 8, 9, 11, 14 and 17 the measurement with Lactoscan was closer to the values of the label. Sample 6 has the largest difference of measurements from that on the label. For samples 1, 15 and 18 we do not have information on the value of fat on the label but the measured values are very similar to each other and the real value of fat should be approximate.

2.5. The results obtained from the phosphatase test

The alkaline phosphatase test was performed only on pasteurized milk samples. After incubation, test strips were observed for positive results. The color intensity was compared with the initial color of the strip before incubation. The results are also presented in the figure below.



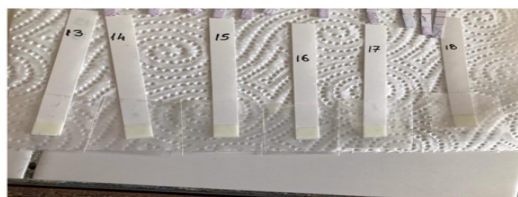


Figure 5. Test strips after detection alkaline phosphatase on pasteurized milk samples

The enzyme activity is proportional to the intensity of the yellow color on the test strip. After incubation, sample 2 was the only one of all samples which underwent a change in color, as also shown in fig.5. In this sample is found the presence of alkaline phosphatase which is not completely destroyed during pasteurization. Pasteurization was not done properly; temperature or treatment time were insufficient or may be contaminated with raw milk after pasteurization. However a positive qualitative test will require a second test with quantitative results.

Sample 10 (milk that was spoiled) did not give the expected result, that pasteurization was not done properly, so it was spoiled. Pasteurization may have been performed properly and the enzyme may have been inactivated but contamination post-pasteurization of the milk may have occurred, which resulted in its breakdown.

2.6. The results obtained for the presence of antibiotics

After analyzing all the milk samples for the presence of antibiotics with rapid tests we conclude that except for sample 10, all other samples were negative for the presence of antibiotics B-lactam and tetracycline. Sample 10 resulted positive for tetracycline and negative for b-lactam. Also, it was this milk sample which presented anomalies at first, but did not test positive for phosphatase, which means that pasteurization may have been done correctly, but the animal from which the milk is taken may have been sick. For this reason, cows may have been treated with tetracycline antibiotics and their remains are still found in milk.

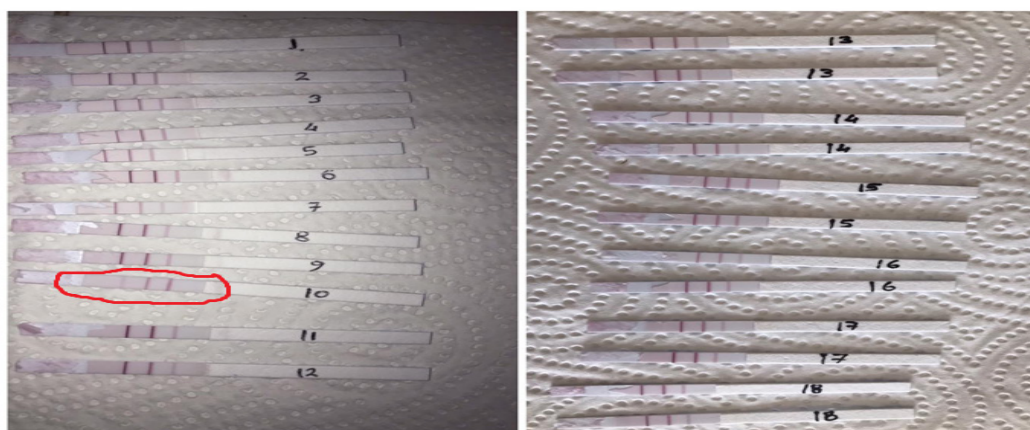


Figure 6. Test strips after detection of antibiotic residues on all milk samples

Conclusion

Based on the measured physicochemical parameters we conclude that with small exceptions sterilized milk results in a higher physicochemical quality compared to pasteurized milk. The parameter that showed the largest deviations from the standard was the added water and specific gravity.

From the high compatibility of physicochemical parameters for samples from the same production company, we conclude that a manufactory generally trades milk with the same parameters continuously.

Only in one of 10 pasteurized milk samples, the pasteurization was not done properly, because in that sample the presence of alkaline phosphatase was found. Alkaline phosphatase rapid tests are effective in analyzing a wide range of samples for pasteurization effectiveness. This saves time; cost and more reliable results are obtained. The application of long and costly methods can only be applied to samples that test positive with rapid tests. This saves time; cost and more reliable results are obtained.

All samples were also analyzed for the presence of antibiotics. Only one of 18 milk samples tested positive for tetracycline residues, indicating that the milk may have come from sick animals treated with antibiotics.

The results showed that most milk samples are safe, but the necessity of performing such tests for antibiotic residues is necessary, for human health and milk processing.

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A new extension of the exponential distribution

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Abstract

Statistical distributions are very useful in describing and predicting real-world phenomena. Numerous extended distributions have been extensively used over the last decades for modeling data in many applied sciences such as medicine, engineering, and finance. Recent developments focus on defining new families that extend well-known distributions and at the same time provide great flexibility in modeling data in practice.

This paper presents an extension of the exponential distribution developed by Weibull Marshall Olkin-G Family, defined by Mustafa Ç. Korkmaz et al (2018). Several of its structural properties are discussed in detail. Also, we describe different methods of estimation to estimate the model parameters. These methods include maximum likelihood, least squares, weighted least squares, Cramer–von Mises, maximum product of spacings, Anderson–Darling and right-tail Anderson–Darling methods. Numerical simulation experiments are conducted to assess the performance of the so obtained estimators developed from these methods. To compare these methods, we will use the mean squared error.

Keywords: Exponential Distribution, Maximum Likelihood Estimator, Mean Squared Error.

Introduction

The exponential distribution is the most applied statistical distribution for problems in reliability, as an important subject of statistics, such as engineering, biostatistics, and other industrial areas. Many authors have been proposed extended or modified of exponential distribution. The generalized exponential distribution [1], order statistics of half logistic exponential distribution [2], a method and application of some extended exponential distribution [3], some properties of beta exponential distribution [4], random sum of new type of mixture of distribution [5], the logistic exponential survival distribution [6], an extension of the exponential distribution [7], the gamma-exponentiated exponential distribution [8], transmuted exponential distribution [9], a new method for generating distributions with an application to exponential distribution [10], the Inverse-Power Logistic-Exponential Distribution [11].

The aim of this paper is to introduce a new extended of exponential distribution based on Weibull Marshall Olkin-G Family defined by Mustafa Ç. Korkmaz et al (2018), [12].

Definition 1. A random variable X is said to have exponential distribution if probability density function is given by

$$g(x; \lambda) = \begin{cases} \theta e^{-\theta x} & x \geq 0 \\ 0 & x < 0 \end{cases} \quad (1)$$

and cumulative density function

$$G(x; \lambda) = \begin{cases} 1 - e^{-\theta x} & x \geq 0 \\ 0 & x < 0 \end{cases} \quad (2)$$

According to Mustafa et al (2018), [12], the cumulative density function is given by

$$F_{WMO-E}(x; \alpha, \beta, \theta) = 1 - e^{\left(-\left(-\log\left(\frac{\alpha \bar{G}(x; \theta)}{1 - \bar{\alpha} \bar{G}(x; \theta)}\right)\right)^{\beta}\right)} \quad (3)$$

the probability density function corresponding to equation (3)

$$f_{WMO-E}(x; \alpha, \beta, \theta) = \frac{\beta g(x; \theta)}{\bar{G}(x; \theta)[1 - \bar{\alpha} \bar{G}(x; \theta)]} \left(-\log\left(\frac{\bar{G}(x; \theta)}{1 - \bar{\alpha} \bar{G}(x; \theta)}\right)\right)^{\beta-1} e^{\left(-\left(-\log\left(\frac{\alpha \bar{G}(x; \theta)}{1 - \bar{\alpha} \bar{G}(x; \theta)}\right)\right)^{\beta}\right)} \quad (4)$$

where $g(x, \theta)$ is the baseline probability density function and $\bar{\alpha} = 1 - \alpha$.

Definition 2. A random variable X is said to have Weibull Marshall Olkin-Exponential distribution if cumulative density function is given by

$$F_{WMO-E}(x; \alpha, \beta, \theta) = 1 - e^{\left(-\left(-\log\left(\frac{\alpha e^{-\theta x}}{1 - (1 - \alpha)e^{-\theta x}}\right)\right)^{\beta}\right)} \quad (5)$$

where, the probability density function corresponding to (5) is

$$f_{WMO-E}(x; \alpha, \beta, \theta) = \frac{\beta \theta e^{-\theta x} \left(-\log\left(\frac{e^{-\theta x}}{1 - (1 - \alpha)e^{-\theta x}}\right)\right)^{\beta-1} e^{\left(-\left(-\log\left(\frac{\alpha e^{-\theta x}}{1 - (1 - \alpha)e^{-\theta x}}\right)\right)^{\beta}\right)}}{e^{-\theta x}(1 - (1 - \alpha)e^{-\theta x})} \quad (6)$$

Definition 3. We assume that our data $T_1, T_2, T_3, \dots, T_n$ i. i. d. $\sim F_{WMO-E}$ than the **survival function** $S(t)$ of this population is defined as

$$S(t) = P(T_1 > t) = 1 - F(t) = e^{\left(-\left(-\log\left(\frac{\alpha e^{-\theta t}}{1 - (1 - \alpha)e^{-\theta t}}\right)\right)^{\beta}\right)} \quad (7)$$

also, the **Hazard function**

$$h(t) \stackrel{\text{def}}{=} \lim_{h \rightarrow 0} \frac{P(t \leq T < t+h | T \geq t)}{h} = \frac{f(t)}{1-F(t)} = \frac{\beta \theta e^{-\theta t} \left(-\log \left(\frac{e^{-\theta t}}{1-(1-\alpha)e^{-\theta t}} \right) \right)^{\beta-1}}{e^{-\theta t} (1-(1-\alpha)e^{-\theta t})} \quad (8)$$

1. Method of Estimation

In this section we consider, some method of estimation for the unknown parameter of Weibull Marshall Olkin-Exponential distribution. To compare these methods, we will use mean squared error, to find out which one of these has the minimum value and then this method it can be used for practical purposes.

1.1. Maximum Likelihood

Let $x_1, x_2, x_3, \dots, x_n$ be a random sample from Weibull Marshall Olkin-Exponential distribution with parameters α, β and θ . The log-likelihood function [13] is given

$$\begin{aligned} \ell = n \log(\beta) + \sum_{i=1}^n \left((\beta - 1) \log \left(-\log \left(\frac{\alpha e^{-x_i \theta_i}}{1 + (\alpha - 1) e^{-x_i \theta_i}} \right) \right) - \left(-\log \left(\frac{\alpha e^{-x_i \theta_i}}{1 + (\alpha - 1) e^{-x_i \theta_i}} \right) \right)^\beta + \right. \\ \left. \log(e^{-x_i \theta_i}) + \log(\theta_i e^{-x_i \theta_i}) - \log(1 + (\alpha - 1) e^{-x_i \theta_i}) \right) \quad (9) \end{aligned}$$

The maximum likelihood estimates $\tilde{\alpha}_{ML}$, $\tilde{\beta}_{ML}$ and $\tilde{\theta}_{ML}$ of α, β and θ can be obtained as the simultaneous solution of the following non-linear equations:

$$\frac{\partial \log \ell}{\partial \alpha} = 0, \frac{\partial \log \ell}{\partial \beta} = 0, \frac{\partial \log \ell}{\partial \theta} = 0.$$

1.2. Least Square and Weighted Least Square Estimators

Let $x_{(1)}, x_{(2)}, x_{(3)}, \dots, x_{(n)}$ be the ordered sample of size n drawn from Weibull Marshall Olkin-Exponential distribution (5). Then, the expectation of the empirical cumulative distribution function [14] is defined as

$$E[F(X_i)] = \frac{i}{n+1}, i = \overline{1, n} \quad (10)$$

The least square estimates $\tilde{\alpha}_{LS}$, $\tilde{\beta}_{LS}$ and $\tilde{\theta}_{LS}$ of α , β and θ can be obtained by minimizing

$$LS(\alpha, \beta, \theta) = \sum_{i=1}^n \left(F(x_{(i)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right)^2 \quad (11)$$

Therefore, $\tilde{\alpha}_{LS}$, $\tilde{\beta}_{LS}$ and $\tilde{\theta}_{LS}$ of α , β and θ can be obtained by as the solution of the following equations:

$$\begin{aligned} \frac{LS(\alpha, \beta, \theta)}{\partial \alpha} &= \sum_{i=1}^n F'_\alpha(x_{(i)}; \alpha, \beta, \theta) \left(F(x_{(i)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right) = 0 \\ \frac{LS(\alpha, \beta, \theta)}{\partial \beta} &= \sum_{i=1}^n F'_\beta(x_{(i)}; \alpha, \beta, \theta) \left(F(x_{(i)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right) = 0 \\ \frac{LS(\alpha, \beta, \theta)}{\partial \theta} &= \sum_{i=1}^n F'_\theta(x_{(i)}; \alpha, \beta, \theta) \left(F(x_{(i)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right) = 0 \end{aligned} \quad (12)$$

The weighted least square [14] estimation of the unknown parameters can be obtained by minimizing

$$WLS(\alpha, \beta, \theta) = \sum_{j=1}^n \frac{(n+1)^2(n+2)}{j(n-j+1)} \left(1 - e^{-\left(-\log \left(\frac{\alpha e^{-\theta x_j}}{1 - (1-\alpha)e^{-\theta x_j}} \right) \right)^\beta - \frac{j}{n+1}} \right)^2 \quad (13)$$

with respect to α , β and θ . Therefore, $\tilde{\alpha}_{WLS}$, $\tilde{\beta}_{WLS}$ and $\tilde{\theta}_{WLS}$ of α , β and θ can be obtained by as the solution of the following equations:

$$\begin{aligned} \frac{WLS(\alpha, \beta, \theta)}{\partial \alpha} &= \sum_{i=1}^n \frac{(n+1)^2(n+2)}{j(n-j+1)} F'_\alpha(x_{(j)}; \alpha, \beta, \theta) \left(F(x_{(j)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right) = 0 \\ \frac{WLS(\alpha, \beta, \theta)}{\partial \beta} &= \sum_{i=1}^n \frac{(n+1)^2(n+2)}{j(n-j+1)} F'_\beta(x_{(j)}; \alpha, \beta, \theta) \left(F(x_{(j)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right) = 0 \\ \frac{WLS(\alpha, \beta, \theta)}{\partial \theta} &= \sum_{i=1}^n \frac{(n+1)^2(n+2)}{j(n-j+1)} F'_\theta(x_{(j)}; \alpha, \beta, \theta) \left(F(x_{(j)}; \alpha, \beta, \theta) - \frac{i}{n+1} \right) = 0 \end{aligned} \quad (14)$$

1.3. Maximum Product Spacing Estimation

Let $X_1, X_2, X_3, \dots, X_n$ be a random sample from Weibull Marshall Olkin-Exponential distribution and $X_{(1)}, X_{(2)}, X_{(3)}, \dots, X_{(n)}$ be an ordered random sample. In this method ([15], [16]), we seek to estimate the parameters α , β and θ of the distribution by maximizing the geometric mean of distances D_i , where this distance is defined as

$$D_i = \int_{x_{(i-1)}}^{x_{(i)}} f(x; \Phi) dx = F(x_{(i)}; \alpha, \beta, \theta) - F(x_{(i-1)}; \alpha, \beta, \theta), i = \overline{1, n+1} \quad (15)$$

where, $F(x_{(0)}; \alpha, \beta, \theta) = 0$, $F(x_{(n+1)}; \alpha, \beta, \theta) = 1$ and $\sum_{i=1}^{n+1} D_i = 1$.

The geometric mean of distances is given

$$GM = \sqrt[n+1]{\prod_{i=1}^{n+1} D_i}$$

(16)

The estimators $\tilde{\alpha}_{MPS}$, $\tilde{\beta}_{MPS}$ and $\tilde{\theta}_{MPS}$ of α, β and θ are obtained by maximizing the geometric mean (GM) of the spacings or equivalently by maximizing the logarithm of the geometric mean of the sample spacings:

$$\begin{aligned} \log(GM) &= \log \left(\sqrt[n+1]{\prod_{i=1}^{n+1} D_i} \right) = \frac{1}{n+1} \sum_{i=1}^{n+1} \log D_i = \\ &= \frac{1}{n+1} \sum_{i=1}^{n+1} \log [F(x_{(i)}; \alpha, \beta, \theta) - F(x_{(i-1)}; \alpha, \beta, \theta)] \\ &= \frac{1}{n+1} \sum_{i=1}^{n+1} \log \left(1 - e^{-\left(-\log \left(\frac{\alpha e^{-\theta x_{(i)}}}{1 - (1-\alpha)e^{-\theta x_{(i)}}} \right) \right)^\beta} \right) \\ &\quad - \left(1 - e^{-\left(-\log \left(\frac{\alpha e^{-\theta x_{(i-1)}}}{1 - (1-\alpha)e^{-\theta x_{(i-1)}}} \right) \right)^\beta} \right) \end{aligned}$$

(17)

The estimators can be obtained as the simultaneous solution of the following equations,

$$\frac{\partial \log GM}{\partial \alpha} = \frac{1}{n+1} \sum_{i=1}^{n+1} \left[\frac{F'_\alpha(x_{(i)}, \alpha, \beta, \theta) - F'_\alpha(x_{(i-1)}, \alpha, \beta, \theta)}{F(x_{(i)}, \alpha, \beta, \theta) - F(x_{(i-1)}, \alpha, \beta, \theta)} \right] = 0$$

$$\frac{\partial \log GM}{\partial \beta} = \frac{1}{n+1} \sum_{i=1}^{n+1} \left[\frac{F'_{\beta}(x_{(i)}, \alpha, \beta, \theta) - F'_{\beta}(x_{(i-1)}, \alpha, \beta, \theta)}{F(x_{(i)}, \alpha, \beta, \theta) - F(x_{(i-1)}, \alpha, \beta, \theta)} \right] = 0 \quad (18)$$

$$\frac{\partial \log GM}{\partial \theta} = \frac{1}{n+1} \sum_{i=1}^{n+1} \left[\frac{F'_{\theta}(x_{(i)}, \alpha, \beta, \theta) - F'_{\theta}(x_{(i-1)}, \alpha, \beta, \theta)}{F(x_{(i)}, \alpha, \beta, \theta) - F(x_{(i-1)}, \alpha, \beta, \theta)} \right] = 0$$

1.4. Method of Cramér-von-Mises

To motivate our choice of Cramér-von-Mises type minimum distance estimators, Mac Donald ([17], [18], [19]) provided empirical evidence that the bias of the estimator is smaller than other minimum distance estimators. The Cramér-von-Mises estimates $\tilde{\alpha}_{MPS}$, $\tilde{\beta}_{MPS}$ and $\tilde{\theta}_{MPS}$ of Weibull Marshall Olkin-Exponential distribution are obtained by minimizing, with respect to α, β and θ the function:

$$\begin{aligned} CM(\alpha, \beta, \theta) &= \frac{1}{12n} + \sum_{i=1}^n \left(F(x_{(i)} | (\alpha, \beta, \theta)) - \frac{2i-1}{n} \right)^2 \\ &= \frac{1}{12n} + \sum_{i=1}^n \left(1 - e^{-\left(-\log \left(\frac{\alpha e^{-\theta x_{(i)}}}{1 - ((1-\alpha)e^{-\theta x_{(i)}})} \right) \right)^{\beta}} - \frac{2i-1}{n} \right)^2 \end{aligned} \quad (19)$$

1.5. Anderson-Darling and Right-tail Anderson-Darling

The Anderson-Darling test was developed T.W. Anderson and D.A. Darling ([20], [21]) as an alternative to other statistical tests for detecting sample distributions departure from normality.

The Anderson-Darling estimates of the parameters are obtained by minimizing, with respect to α, β, θ the function:

$$AD(\alpha, \beta, \theta) = -n - \frac{1}{n} \sum_{i=1}^n (2i-1) [\log F(x_{(i)} | \alpha, \beta, \theta) + \log \bar{F}(x_{(n+1-i)} | \alpha, \beta, \theta)] \quad (20)$$

The Right-tail Anderson-Darling estimates of the parameters are obtained by minimizing, with respect to α, β, θ the function:

$$RAD(\alpha, \beta, \theta) = \frac{n}{2} - 2 \sum_{i=1}^n F(x_{(i)} | \alpha, \beta, \theta) - \frac{1}{n} \sum_{i=1}^n (2i-1) \log \bar{F}(x_{(n+1-i)} | \alpha, \beta, \theta)$$

1.6. Simulation Study

In this section, we discuss the performance of the methods that we interpreted above. A random sample $x_1, x_2, x_3, \dots, x_n$ of sizes $n = 10, 50, 100, 150, 200$ are generated from Weibull Marshall Olkin-Exponential (WMO-E) distribution. We compare the proposed estimators by using the mean squared error. This process is repeated 1000 times and the average estimates and corresponding mean squared error.

Definition 4. Let $\tilde{X} = g(Y)$ be an estimator of the random variable X , given that we have observed the random variable Y . The mean squared error (MSE) of this estimator is defined as

$$E[(X - \tilde{X})^2] = E[(X - g(Y))^2] \quad (22)$$

1. Choose the initial values of α, β, θ for corresponding elements of the parameter vector $\Phi = (\alpha, \beta, \theta)$ to specify Weibull Marshall Olkin-Exponential distribution.
2. Choose sample size n .
3. Generate N independent samples of size n from Weibull Marshall Olkin-Exponential distribution.
4. Compute the estimators $\tilde{\Phi}_i$ of Φ_i for each of the N samples.
5. Compute the mean of the obtained estimators over all N samples, the average bias $\frac{1}{N} \sum_{i=1}^N (\tilde{\Phi}_i - \Phi_i)$ and the average mean squared error $MSE = \frac{1}{N} \sum_{i=1}^N (\tilde{\Phi}_i - \Phi_i)^2$ of simulated estimates.

Firstly, we provided an algorithm to generate a random sample from the WMO-E distribution for given values of its parameters and sample size n . The following procedure was adopted:

1. Set $n, \Phi = (\alpha, \beta, \theta)$ and initial value x^0 .
2. Generate $U \sim \text{Uniform}(0, 1)$.
3. Update x^0 by using the Newton's formula

$$x^* = x^0 - R(x^0, \theta)$$

where, $R(x_0, \theta) = \frac{F_X(x^0, \theta) - U}{f_X(x^0, \theta)}$, $F_X(\cdot)$ and $f_X(\cdot)$ are CDF and PDF of the WMO-E distribution.

4. If $|x^0 - x^*| \leq \epsilon$ (very small, $\epsilon > 0$ tolerance limit), then store $x = x^*$ as a sample from WMO-E distribution.
5. If $|x^0 - x^*| > \epsilon$, then set $x^0 = x^*$ and go to step 3.
6. Repeat steps 3-5, n times for $x_1, x_2, \dots, x_n$ respectively.

For this purpose, we take $\alpha = 1.3, \beta = 1.2$ and $\theta = 1.9$ arbitrarily. All the algorithms are coded in R, a statistical computing environment and we used algorithm given above for simulations purpose.

From **Table 1**, **Table 2** and **Table 3** it can observed that as the sample size increases the mean squared error decreases, it proves the consistency of the estimators. The weighted least square estimator of the parameters α, β, θ is superior to the other methods of estimation.

Table 1. Estimates and the mean squared error (IInd row of each cell) of proposed estimators with varying sample size.

n	MLE	MPS	LSE	WLSE	CME	ADE	RADE
10	1.4155	1.4363	1.4203	1.5480	1.4021	1.4488	1.4061
MSE	1.1040	0.7106	0.6590	0.6270	0.6560	0.7498	0.6586
50	1.3535	1.3316	1.3315	1.5920	1.3183	1.3282	1.3226
MSE	1.2852	0.5858	0.5762	0.5713	0.5750	0.5930	0.5780
100	1.3325	1.3150	1.3158	1.4857	1.3154	1.3103	1.3053
MSE	0.9201	0.5732	0.5676	0.5641	0.5674	0.5780	0.5672
150	1.3260	1.3097	1.3095	1.4028	1.2997	1.3037	1.3014
MSE	0.8180	0.5670	0.5629	0.5621	0.5630	0.5711	0.5627
200	1.3150	1.2977	1.2711	1.3049	1.2962	1.2985	1.2973
MSE	0.7263	0.5632	0.5594	0.5582	0.5600	0.5654	0.5600

Table 2. Estimates and the mean squared error (IInd row of each cell) of proposed estimators with varying sample size.

n	MLE	MPS	LSE	WLSE	CME	ADE	RADE
10	1.1714	1.4879	1.2475	1.2538	1.3176	1.2732	1.3437
MSE	0.6685	0.7484	0.6355	0.5943	0.6135	0.6245	0.6803
50	1.1249	1.3859	1.1902	1.2128	1.2509	1.2076	1.2747
MSE	0.6142	0.6723	0.6022	0.5805	0.5874	0.5984	0.6315

100	1.1318	1.3378	1.1133	1.2026	1.2279	1.1982	1.2413
MSE	0.601	0.6461	0.5927	0.5746	0.582	0.5941	0.6158
150	1.1308	1.3111	1.1768	1.1981	1.2216	1.1938	1.2259
MSE	0.5941	0.631	0.5922	0.5719	0.5759	0.5852	0.609
200	1.1458	1.2757	1.1787	1.1952	1.2137	1.1893	1.2115
MSE	0.5813	0.6136	0.5853	0.5681	0.575	0.5789	0.5965

Table 3. Estimates and the mean squared error (IInd row of each cell) of proposed estimators with varying sample size.

n	MLE	MPS	LSE	WLSE	CME	ADE	RADE
10	1.8600	2.1765	1.9361	1.9424	2.0062	1.9618	2.0323
MSE	0.9955	1.0995	1.0302	0.9933	1.0693	1.0642	1.1424
50	1.8135	2.0745	1.8788	1.9014	1.9395	1.8962	1.9633
MSE	0.9736	1.0247	1.0082	0.9630	1.0228	1.0220	1.1035
100	1.8204	2.0264	1.8019	1.8912	1.9165	1.8868	1.9299
MSE	0.9137	0.9533	0.9656	0.8939	0.9273	0.9701	0.9233
150	1.8194	1.9997	1.8654	1.8867	1.9102	1.8824	1.9145
MSE	0.8834	0.8897	0.9241	0.8136	0.9170	0.9201	0.8642
200	1.8344	1.9643	1.8673	1.8897	1.9023	1.8779	1.9001
MSE	0.8156	0.8164	0.8636	0.7476	0.8439	0.8489	0.7935

Conclusion

In this paper, we proposed a new three parameter distribution called Weibull Marshall Olkin-Exponential distribution. The cumulative density function, probability density function, reliability function and Hazard function are derived. We have considered different methods of estimation of the unknown parameters of the *WMO-E*, which are Maximum Likelihood estimation, Least Squares estimation, Weighted Least Squares estimation, Maximum Product Spacing estimation, Cramér-von-Mises estimation, Anderson-Darling and Right-tail Anderson-Darling estimators and compare them with respect to Mean Squared Error. It observed that Weighted Least Squares estimation is superior to the other methods of estimation. We recommend use of the Weighted Least Squares estimation for practical purposes.

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Promoting the spirit of great national unity in the socialization of the “Covid-19 vaccine fund”- Contemporary practical experience in Vietnam

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Abstract

As of early June 2021, Vietnam has experienced four large-scale Covid-19 outbreaks. Compared with the previous three waves, the fourth outbreak is considered to be the largest scale, more complex and more difficult to control due to the emergence of many new virus strains. In addition to pandemic prevention measures, the Government of Vietnam has taken an initiative that is the establishment of a Covid-19 vaccine fund. This new measure is considered an innovative application of the Government of Vietnam to appeal to many individuals and organizations both within the country and abroad for the participation and contributions to create opportunities for about 75% of the population to be protected by Covid-19 vaccines in 2021.

Keywords: National solidarity, socialization, Vaccine Fund, Vietnam’s experience.

Introduction

On March 11, 2020, the World Health Organization (WHO) issued a statement calling “Covid-19” a “Global Pandemic” in the context that the number of infections worldwide has surpassed 126,000 and the pandemic has spread to 123 countries and regions. COVID-19 pandemic¹, also known as the Corona Virus Pandemic, is an infectious disease pandemic with the agent being the SARS-CoV-2 virus, which is taking place on a global scale. At the end of December 2019, the first outbreak was recorded in Wuhan city in central China, originating from a group of people with pneumonia of unknown cause. Chinese scientists conducted research and isolated a new strain of Corona virus, temporarily called 2019-nCoV by the World Health Organization at that time, with the same gene sequence as the previous SARS-CoV with similarity up to 79.5%. The first suspected cases in Wuhan were reported on December 31, 2019. Some information suggested that the Sars-Cov-2 Virus originated in a laboratory in Wuhan but until now there is no official information. It is also possible that pandemics emerge from wild animals and spread into human pandemics.

Governments around the world have taken measures to protect the health of people and community groups around the globe, including: travel restrictions, quarantine blocks, declarations of emergency, using curfews, implementing social distancing, canceling mass gatherings, closing schools and less important businesses and services, encouraging people to raise self-awareness of disease prevention, wear masks, not going out when unnecessary, and at the same time switch business, study and work models from traditional to online.

¹ WHO declares Covid-19 a pandemic, Vietnam Express. March 11, 2020.

The worldwide effects of the current Covid-19 pandemic include: loss of human life, economic and social instability, xenophobia and racism against people of Chinese and East Asian descents, social panic and virus conspiracy theories caused by the spread of misinformation on the Internet.

In 2019, Corona virus resembles HIV yet in 2020, it resembles HIV combined with Ebola. By 2021, the new strain Covid-19 includes four variants. The special variant B1617, which is raging from India, is an extremely dangerous strain containing two mutations:

First, the rate of spread is extremely fast in a short time.

Second, the virus blocks the antibodies of the infected person (this strain enters the human body easily as it evades the attack of the human immune system).

The characteristics of this new strain of virus include: (1) High heat generation, destroying important parts of the body, first of all, the brain and lungs; (2) Destroying the human immune system; (3) Destroying the health systems of countries, including those with modern health systems.

The Covid-19 pandemic is caused by the Sars-Cov-2 virus with the first infection case in Vietnam on January 23, 2020. The Vietnamese government has conducted isolation, monitoring and restriction of people from pandemic areas, border closures, and medical declarations. Mass gatherings, travel and trade in localities are restricted. Some places carry out temperature checks, provide disinfectants, distribute free masks and tighten controls. In that situation, Vietnam's economy and society are also affected by the Covid-19 pandemic like other countries in the region and the world.

Due to the urgent needs in the prevention and control of the Covid-19 pandemic, the Ministry of Health has agreed to import the first 204,000 doses of the Covid-19 vaccine and the Covid-19 vaccine injection started from March 8, 2021. At the end of April 2021, chains of Covid-19 infection from quarantined people appeared, causing Vietnam to re-intensify the level of disease prevention. In May 2021, a violent outbreak of Covid-19 occurred in Vietnam. In the North, infection clusters appeared in industrial zones in Bac Giang and Bac Ninh, seriously affecting production and businesses. In the South, Ho Chi Minh City appeared an infection cluster related to the Renaissance Mission Church, making Ho Chi Minh City apply social distancing from May 31.

2. Socializing the “Vaccine Fund for Covid-19 Prevention” - the spirit of great national solidarity

The “Covid-19 Vaccine Fund” was established in the context of the increasingly complex and unpredictable Covid-19 pandemic. So far, Vietnam has encountered the 4th Covid-19 outbreak with a much more complex and larger scale than previous outbreaks. The important solution offered by the Government of Vietnam in the prevention of this pandemic is combining the “5K” measure (wearing a mask, disinfecting, making medical declarations, keeping distance and no mass gatherings) with vaccine injection. Facing that situation, on May 26, 2021, the Prime Minister of Vietnam issued Decision 779/QĐ-TTg on the establishment of the “Covid-19 Vaccine Fund”. The purpose of the Fund is to receive, manage and use funding sources, support, voluntary monetary contributions in money, vaccines of domestic and foreign organizations and individuals and other lawful capital sources in order to

purchase and import vaccines, research and produce vaccines in the country and use Covid-19 vaccines for people. The Vaccine Fund is Vietnam's proactive measure to continue appealing for the people's contributions to join hands with the Party, State and Government in the fight against the Covid-19 pandemic.

When the Covid-19 pandemic broke out on a global scale, the General Secretary, President, and Prime Minister of Vietnam appeal to the people to work together to fight the pandemic. In addition to strictly implementing pandemic prevention and control measures as recommended by the Ministry of Health, the people of the whole country and a large number of overseas Vietnamese have made efforts, contributed money and in kind to the prevention and control of the pandemic. With the spirit of mutual affection: "one piece when hungry is equal to one packet when full", in many places across the country there have been rice ATMs, instant noodles ATMs, face mask ATMs... Apart from institutes and organizations, heroic Vietnamese mothers (mothers whose children died in the Vietnam war) also contribute their pension whilst children contribute their savings. This contribution has shined the spirit of solidarity, care and sharing of Vietnamese people in difficulties and tribulations, helping Vietnam become a bright spot in the fight against the three previous outbreaks of Covid-19.

Unlike the three previous outbreaks, the fourth outbreak is faster, more widespread, more dangerous and more difficult to control. Realizing that, the Government of Vietnam has determined that along with applying the "5K" measure (wearing a mask, disinfecting, making medical declarations, keeping a distance and no mass gatherings), vaccination for people becomes an urgent requirement in the prevention of the Covid-19 pandemic. With the goal of vaccinating 75% of the country's population, the Government of Vietnam has established a "Vaccine Fund". This is a necessary initiative, demonstrating the strong determination of the Government of Vietnam in early prevention of the Covid-19 pandemic to bring normal life to the people.

According to the Ministry of Health of Vietnam, to immunize 75% of the population, Vietnam is expected to purchase 150 million doses of Covid-19 vaccine. The total estimated cost is about VND 25,200 billion (equivalent to \$1,094 billion), of which the cost of purchasing Vaccine is about VND 21 trillion (equivalent to \$912 million), the costs of transportation, storage, distribution and organization for vaccination are about 4,200 billion VND (equivalent to \$182 million). The establishment of the "Vaccine Fund" is a necessity and an effective measure of Vietnam in order to appeal for the great contribution of all Vietnamese people in the difficult contemporary situation to prevent and control the Covid-19 pandemic.

As soon as it was established, the Vaccine Fund has quickly received the sympathy and support of a large number of people in the country and overseas Vietnamese. In just a short time, the "Vaccine Fund" has received great and enthusiastic support not only from institutes, units, businesses, corporations... but also from all classes of people, from high school students to the elderly, from veterans to Vietnamese heroic mothers, from farmers to retired cadres... Especially, a large number of overseas Vietnamese, though facing many difficulties due to the Covid-19 pandemic, are still concerned about the country and join hands to contribute to the "Vaccine Fund".

In particular, in the evening of June 5, 2021, within just two hours of launching the "Covid-19 Vaccine Fund" on television, not only did the "Vaccine Fund" receive great contributions from many institutes, officials and businesses but it also received

more than 17.7 billion VND (equivalent to \$769,000) via the message switchboard 1408. It is a proof that the “Covid-19 Vaccine Fund” is the determination of both the Government and the people in the fight against Covid-19, spreading the spirit of solidarity and responsibility in social work of the entire Vietnamese people. As of September 9, 2021, Vietnam has received 2,562,314 messages, which help to raise 115,485,030,000 VND (equivalent to \$5 million). The total amount of socialization of the “Covid-19 Vaccine Fund” as of September 9, 2021 is VND 8,662 billion (equivalent to \$380 million); Individual organizations and individuals have donated VND 350,008 billion (equivalent to \$15.2 million) as a contribution of the Vietnamese people². The rapid increase in the daily contribution to the “Vaccine Fund” is a proof of the trust of institutes, organizations and people in the right initiative of the Government of Vietnam in establishing the “Covid-19 Vaccine Fund”.

The socialization of the “Covid-19 Vaccine Fund” launched by the Government of Vietnam is an act of gathering the strength of the whole society, the strength of the whole Vietnamese nation, promoting the community responsibility of the Vietnamese people in fighting against the Covid-19 pandemic. In Vietnam, the “Vaccine Fund” has been receiving great contributions from the masses through the Government, the Vietnam Fatherland Front and socio-political organizations, and charities.... The monetary contribution to the “Vaccine Fund” is not only the contribution of efforts and material value, but also the sharing, social responsibility, attachment and coordination of the people with the Party, State and Government of Vietnam in the fight against the Covid-19 pandemic.

Although the upcoming fight against the Covid-19 pandemic is challenging, the “Vaccine Fund” is not only the right social policy of the Party and Government of Vietnam in appealing for the strength of the entire nation but also a testament to the people’s cooperation and contribution to the Party and Government of Vietnam in difficult and challenging times. That is also the source of strength for Vietnamese people, who have defeated many invaders, to win the fight against the Covid-19 pandemic.

The establishment of the “Covid-19 Vaccine Fund” demonstrates that the Vietnamese Government are greatly concerned about human issues, social security, and they puts people’s lives and health first. The “Vaccine Fund” is of great importance and necessity at this urgent moment. History has proven that when facing difficulties, Vietnamese people always unite and overcome them together. When the Covid-19 pandemic took place, reality once again proved the solidarity of the nation. From leaders at all levels to businesses and people all agree to follow the leadership of the Party, State and Government.

3. Solutions to control and repel the Covid-19 pandemic in Vietnam in the future

3.1. Mass vaccination against Covid-19 for the people

This is an effective solution against the Covid-19 pandemic that countries around the world are currently trying to vaccinate their people on a massive scale. International organizations in Vietnam highly appreciate the initiative of Vietnam’s “Covid-19 Vaccine Fund” as it demonstrates the Vietnamese Government’s rapid adaptation

² Data as of 00h00 on September 9, 2021, According to the noon news of September 9, 2021 of Vietnam Television VTV1.

in the fight against the Covid-19 pandemic. Deputy Minister of Health of Vietnam, Mr. Nguyen Truong Son, said: "Injecting a full dose of Vaccine (two shots) is not the sole solution, yet it can make the symptoms milder should the people who have been vaccinated contract Covid-19 ". Vietnam's solution to promote vaccination for herd immunity is also a right direction, in line with the general trend of the world. Although the world has recorded cases of Covid-19 after vaccination, vaccination will help reduce severe symptoms and reduce the risk of death. The greatest benefit of vaccination is to help patients avoid serious complications and limit the possibility of infecting those around them.

Therefore, the World Health Organization (WHO) recommends that people who have been fully vaccinated still need to follow preventive measures such as wearing masks, physical distancing, avoiding crowded and enclosed spaces, washing hands frequently with soap. The implementation of the "5K" regulation in the prevention of the Covid-19 pandemic is extremely important, and at the same time, it is necessary to synchronously combine many solutions to prevent the spread of Covid-19. The "Vaccine Fund for Covid-19" is a humane solution of the Vietnamese Government in the prevention of pandemics.

Prof. Dr. Phan Trong Lan, Director of the Pasteur Institute in Ho Chi Minh City, said: "Vaccine against Covid-19 is absolutely necessary to increase the immunity rate in the community and prevent outbreaks of the pandemic". Herd immunity is an indirect form of community protection against an infectious disease when a large proportion of the population is immune to an infectious virus. When a certain number of the population is immune, the infection cycle is easily broken, causing the spread of the disease to stop or slow down, lowering the risk of non-immune people coming into contact with the source of infection. Vaccination is the main and important solution as it is the most effective way to achieve herd immunity and repel the disease. The Vietnamese government plans to vaccinate more than 70 million people with the vaccine (Vietnam's population is currently over 96 million people).

3.2. Implement the "dual goal" of preventing pandemics and promoting socio-economic development

The measure to implement "dual goals" is to ensure people's health and safety, effectively combat the Covid-19 pandemic, as well as promote socio-economic development. Vietnam's social policy has always been flexibly adjusted to match the pandemic situation and ensure the highest goal which is to prevent the spread of the disease in the country. At the same time, Vietnam also pays great attention and make efforts to promote the goal of socio-economic recovery.

The Vietnamese government pays great attention to pandemic prevention while maintaining the pace of socio-economic development and protecting people's health. Provinces and cities across the country have seriously implemented the transition to the anti-pandemic state with the most positive solutions, tightening management of localities, applying temporary blockade measures. Up to now, most of the outbreaks occurring in the community have been controlled; social security continues to be of great concern and well implemented; production and business develop flexibly; digital transformation, technology application are promoted; continue to remove difficulties for production and business are resolved.

3.3. Importing vaccines in combination with domestic production of vaccines

In the context of the complicated development of the Covid-19 pandemic with new strains and variants, the international community needs to strengthen cooperation, coordinate more closely, share information, experience, focus resources on research to develop more and more vaccines and the best treatment regimens. With a sense of responsibility, Vietnam is ready to join hands with the international community in the prevention, control and complete repelling of this dangerous disease. Since the beginning of the Covid-19 pandemic, Vietnam has made great efforts to negotiate and find vaccine supplies. Following the direction of the Prime Minister of Vietnam, the Ministry of Foreign Affairs and the overseas Vietnamese representative missions have been actively and diligently seeking and negotiating with corporations, suppliers and other vaccine manufacturers in the world to soon access more vaccine sources, in order to increase vaccination coverage for Vietnamese people, contributing to repelling the Covid-19 pandemic.

Along with purchasing a vaccine to prevent Covid-19, Vietnam is promoting domestic production of vaccines, including domestic vaccine research and technology transfer from abroad. Currently, Vietnam is researching two types of Covid-19 prevention vaccines: Nanocovax vaccine, developed by the Military Medical Academy in collaboration with Nanogen Company, and Covivac of Nha Trang Institute of Vaccines and Biologicals (IVAC). In particular, the Nanocovax vaccine has just been put into phase 3 trials, which is the final stage before applying for an emergency license, conditional use if it is effective:

Firstly, a positive signal has just been announced that after the phase 2 trial injection, the concentration of SARS-CoV-2 virus antibodies increased very high, from tens to hundreds of times. 100% of volunteers who injected the Nanocovax Vaccine produced antibodies in the blood. It is expected that phase 3 will be implemented in many provinces and cities across the country with the number of about 13,000 people clinical trial participants.

Secondly, for the Covivac vaccine, which is currently in phase 1 clinical trial, the mid-phase 1 report will be conducted to transition to phase 2 research. According to information from the Ministry of Health of Vietnam, the scale of production on the existing facilities of Nha Trang Institute of Vaccines and Biologicals is six million doses per year, and that of Nanogen Company is 20-30 million doses per year. Both of these institutes can increase capacity when invested and they need to invest in more specialized equipment and expand the factory.

In summary, since the Covid-19 pandemic appeared and spread globally, Vietnam has always proactively applied effective disease prevention measures. The policy of establishing a “Vaccine Fund for Covid-19 Prevention” is a measure with socialization characteristic. The Government of Vietnam’s management, along with fair and efficient use of resources from the people and private enterprises, will bring benefits for Covid-19 response strategies. The Covid-19 pandemic is considered unprecedented in the past century, a national emergency for any institution. Vietnam’s initiative to establish the “Covid-19 Vaccine Fund” can offer other countries in the region and the world valuable experience. This initiative is worth considering and applying in order to effectively promote community strength in the region in the fight against the Covid-19 pandemic. To repel the Covid-19 pandemic on a global scale, no single country or government can do it and thus we need to promote the positive attitude

and responsibility of each country and people to win.

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Pension system and its reform in Albania

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Abstract

The reform of the pension system has happened and is happening in many countries of the world. This reform must be designed in accordance with the specific political, economic and social characteristics of each country.

Economic experts say that intervention in the pension scheme in Albania is necessary and urgent not only because of the large financial deficit, but also to avoid a deep social crisis.

In the conditions when the old PAYG system is heading towards bankruptcy, anticipating the difficult social crisis, we are obliged to answer some questions.

First: Should the existing pension system be reformed? Of course, yes"

Second: Would it be better to operate a modified PAYG system, a private pension system or a multi-column system?

Another concern in the pension scheme is the retirement age as well as the introduction of another column known as the zero column, which will serve those persons, who are not included in the scheme, to ensure a healthy lifestyle; retirement, through the benefit of a social pension, say the experts of the insurance scheme. In this article we will present an overview of the old pension system in Albania.

The paper will discuss general information about the historical development of the pension system, the current situation, as well as the challenges and prospects for the future.

Our goal is to compare the past and present solutions (historical and parametric reform), used by the pension system in Albania, to give valuable ideas for the reform of the system in the future, based on international comparisons.

The current pension system in Albania is organized according to the PAYG principle. This system is not sufficient to achieve financial stability in the pension system and should be expanded towards private supplementary pensions. These funds are of particular importance.

Keywords: Albania, social security, old age pensions, private pensions.

Introduction

The transition process of Albania from the centralized system to the free-market system and the adoption in the new system has had and still continues to have great difficulties. Many of these difficulties consist in decision-making and implementation of various reforms in the economic, social, political, etc. fields. Although many reforms have been successful, reforms in the pension system have left much to be desired. One of the challenges that this system must undoubtedly face is also the aging of the population, which causes a pronounced disorder in the rate of addition. Demographic change brings into question the type of reform that this system should follow, the parametric reforms, so which is better? the continuation of the PAYG system or the transition to a fully funded system (according to the proposals of the World Bank).

Although the pension system in Albania has undergone three important reforms, in 1993, 2002 and 2005, these reforms are not enough to avoid a crisis in the coming

years given the demographic trend of the population. The variant proposed by the World Bank, the introduction of the multi-colony system, applied in many European countries, which have managed to avoid the problem of population aging, seems appropriate for many decades to come.

When it comes to pensions a kind of security is required of the people. The trinity of security, innovation, progress, make the scheme move forward.

1. The pension system in Albania.

Most old-age insurance systems today are publicly governed, and pay defined benefits (DB) based on formulas based on employee pay, years of service, and funded by contributors who pay today, based on of the PAYG system. Existing systems are not always able to protect the elderly, they will not protect those who will grow old in the future, and have often distributed benefits unevenly, and hamper economic growth as a result of the return of the pension scheme to the main aggravator of GDP. To avoid these problems, it is recommended to switch to systems that are partially defined, capitalized and privately administered, (in a defined contribution scheme the contributions and not the benefits are defined and the future pension depends on the accumulated contributions plus return on investment) than in systems with totally defined PAYG benefits and publicly administered. Thus, these systems contain three columns:

The first pillar, mandatory, publicly administered and funded by contributions, aimed at redistribution. This column mainly guarantees the protection of the elderly from poverty, which is part of the redistributive function of the state, so it is the model that is applied in Albania, Pay As You Go. (PAYG). This scheme is called generational relationship, as current contributors pay to receive benefits those citizens who are currently retired. This is called a safe scheme, although it is said that the benefits that citizens receive from it are low compared to those of other European Union countries. Making an analysis, the current pension system in Albania is very complex, with many different special privileges and is therefore difficult to administer.

The second pillar, mandatory, privately administered and fully capitalized, covers the savings target, which enables the individual choice for a lifetime distribution of money consumption. This column is a cross between the private and the public pension scheme and it is based on capitalism or redistribution, but must be clearly separated from the first column. Under this scheme, part of the mandatory contribution will be administered by the public —pay as you go scheme (the current scheme based on intergenerational solidarity), which will guarantee a basic pension, while the rest will be administered by a private company, to be elected by the state based on the legislation to be adopted. These companies will give the money paid as a mandatory contribution together with the profit realized over the years in the form of a pension when the retirement age is reached. The construction of this column is one of the most important points of the reforms undertaken in the field of social security.

The third pillar, voluntary, is entirely private and it is based on optional capitalism according to the choices of individuals. This means that all persons wishing to receive higher than normal pensions can become part of these schemes. This third pillar, which will be in force after the reforms made, is what currently functions in our country; these are the private pension scheme. This means that citizens are

free to make contributions to this scheme, which is completely independent, which means not controlled by the state. There are currently three institutions offering supplementary pensions to all persons who have paid contributions into their offers. These schemes compared to the current one offer first retirement at a younger age than has been approved.

The social security system in Albania went through four important reforms. In 1993 the first reform was started which was based on the unification of two different social security schemes (state employees and cooperatives) to guarantee the same conditions for all individuals active at work. The second reform in 2002 aimed to change the parameters based on demographic forecasts where an increase in the dependency ratio of the elderly population was expected. Finally, the third reform of 2005 had to do with the adaptation of the social security system to the market economy, thus giving the opportunity to privatize this system as well. In 2014 it was the reform in parameters. The main aim of this reform was the turn to a sustainable scheme and the development of private pension plans.

Table 1. Summary of pension reforms in Albania

Year	Reform	The aim of the reform	Special characteristics
2014	IV. Reform in parameters	A turn to a sustainable scheme, developing private pension market	Increasing the retirement age
2005	III. The private pension market	Adapting to market	The second and the third pensions column
2002	II. Reform in parameters	Facing with demographic social challenges	Increasing the retirement age and the reference salary
1993	I. Unification of the two social insurance schemes	A single system (application of the principle of social justice)	The beneficiaries, employees in the state and cooperatives

Source: Hysa (2013) and author's update

2. Reforms in the pension system in Europe and their progress in Albania.

The need to think about reforming the current pension system in Albania comes as a necessity to find solutions to many problems this system has and to create the necessary economic

instruments and structures that can provide satisfactory pensions. All people who make contributions on their work salary.

Table 2 provides an overview of the reforms undertaken in the Albanian and European system, as well as it will provide a comparison of European countries and Albania. It is a summary of typical reforms in European countries and the progress of these reforms in the case of Albania.

Table 2. Pension System Reforms in Europe and the performance in Albania

	Reforms in Europe
Parametric Reforms	• Parametric Reforms - Raising the retirement age (most countries, recently Belgium, Czech Republic, Denmark, Germany, Greece, Italy, Switzerland) • Increased insurance period (most countries, recently Czech Republic and France for the public sector), (Albania) • Elimination / limitation of opportunities for early retirement (most countries, most recently, Greece, Ireland, Poland and France for the public sector), (Albania) • Establish incentives to delay retirement (among others Italy, France, England), (Albania) • Changing the rules of indexation from wages to prices (most countries, most recently Hungary and France for the public sector), (Albania) • Extent of evaluation of all contribution periods in calculation of the benefit measure (most countries, recently Finland), (Albania) • Adjusting benefits according to longevity changes (France, Denmark) • Reduction of conversion rates into contribution-based pensions by reducing the benefit rate (Italy, Germany, Finland, Portugal)
Structural Reforms	• Reconfiguration of public PAYG pension schemes in systems of pensions based on contributions (Italy, Sweden, Latvia, Poland) • Transition to a mixed system with mandatory private schemes with individual accounts (Hungary, Poland, Latvia, Slovak Republic)
Improving minimum protection coverage	• Improve / expand coverage in the basic pension column for poverty prevention (Finland, Sweden, Italy, England) • Increase of minimum benefits (Belgium, France, Spain) • Reduction of the minimum income threshold for inclusion in social security in order to cover workers with lower wages than the minimum wage or part-time (Switzerland) • Pension plans supported by companies / employers (Italy). Establishment of new supplementary schemes for individual savings (Denmark, Sweden, England inclusion in automatic calculations in the national savings scheme)

Source: Xhumari, M. (2010). Pension Trajectories in the Western Balkans. Comparative study of three cases: Albania, Macedonia and Kosovo 1990-2010. 27-28.

3. The problem of social security today

The pension system today faces a series of problems that require solutions from experts in the field of pensions and policy makers.

According to the Director of ISSH, the new pension scheme not only favors those who have high salaries, but also the categories of employees with the minimum wage (Panorama Newspaper). The social pension is estimated to be 6,650 ALL.

Through concrete examples presented, it resulted in the difference between the current scheme and the new scheme, as well as the impact that the latter brings to the amount of pension that will result from the three declared salary levels, respectively low, medium and high.

Two of the most important changes to the new pension scheme are:

First: the removal of the ceiling for the pension measure, so with the new reform we can benefit more than 24,548 ALL, which today is the maximum limit and this depending on the contributions and years of work.

Second: The restriction has been removed, which does not allow to receive an old-age pension higher than 75% of the average income of three consecutive years in the last 10 years. The new pension scheme has replaced the basic pension with the social one. This pension will be around 6,650 ALL, and above this social pension will increase 1% of the average salary of all social contributions and 1% each year for the contribution to this scheme. The difference is that in the new scheme both new restrictions have been removed. The first limitation is the removal of the ratio between the maximum pension and the minimum pension, so the ceiling is removed.

Another restriction that has been removed is that it did not allow you to receive a pension higher than 75% of the average income of three consecutive years in the last 10 years. (Panorama)

Another problem in the social security issue, which is going through a wide debate is the retirement age and the years of work needed to get a pension. According to experts, the reform affects those persons born in 1969, the retirement age for women will be 63, and for all those who will work more than the statutory age for each month will be one increase by 0.5% per month or 6% per year. The idea is that the more an individual contributes, the more benefits he will receive. Taking into account the age of women, it will have an increase of about two months a year, until 2032 when the age of women will be 63 years old. Women born in 1969 are affected by this age.

One of the challenges the system has to face is undoubtedly the aging of the population, which causes a sharp and sensitive rate of addition. Demographic change calls into question the type of reform that the system should pursue, the parametric reforms undertaken, and the way the PAYG system (fully funded system) operates based on World Bank proposals.

Although the pension system in Albania has undergone four important reforms, in 1993, 2002 2005 and 2014, these reforms are not enough to avoid a crisis in the coming years, given the demographic trends. The option proposed by the World Bank, the introduction of a multi-colony system, that is being implemented in many European countries, has managed to avoid the problems of aging, seems appropriate for many

decades to come.

Another problem is the high budget deficit that the current pension scheme is facing. The new scheme envisages a gradual increase in insurance every two months, thus affecting income growth and the size of the benefit.

4. Conclusions and recommendations

In most countries of the world, a wide-ranging debate is taking place over the reform of pension systems. Should it be a reformed PAYG system, a fully funded system or a multi-column system work? The answer is not so simple. Pension reform should be conceived and designed based on the specific characteristics of the political, economic and social situation of the country.

Different countries have achieved the transition from the current system to a reformed system in different ways. However the costs have been high and there are certainly many difficulties in implementing numerous reforms, while the benefits are expected to be felt in the long run.

Our pension system is organized according to the PAYG principle. Although the law recognizes the existence of the other two columns, they do not yet exercise the proper activity as a result of restrictions such as:

- The legislation does not seem very adequate, so a lot of improvement is needed.
- Lack of additional opportunities for private pensions and investments for savings that will be managed by these institutions.
- Lack of technical training for the management of these private institutions, as a result of higher contribution rates do not leave much space for savings.
- Lack of culture and awareness of individuals to save for old age, etc.

The first column despite the parametric reforms that have been made continues to be problematic, especially due to the high transfers required by the state budget, contribution rates, the weak link that exists between contributions and benefits, the low replacement ratio and the reports of high dependency.

The large difference between the dependency ratios in urban and rural areas implies the existence of two separate schemes. In rural areas, the pension scheme has become a poverty alleviation mechanism.

As a result of inconsistencies from the beginning of this scheme and the lack of actuarial calculations, whenever we undertake a reform, we notice that the current system creates high evasion and informality by bringing distortions to the labor market and providing a long-term solution to pension problems.

Regardless all the difficulties the system faces, PAYG is essential because it provides public goods that serve the common good and must be funded collectively, PAYG provides social protection for the elderly population.

However, this is not enough to achieve financial stability in the pension system. The pension system should also be extended to additional private pensions. These funds are of particular importance:

1. They constitute an effective means of achieving a higher level of living staff.
2. The Contributor / Beneficiary Ratio is deteriorating and the future still appears problematic.
3. Increasing life expectancy, of course, increasing public spending and social security

imposes an increase in retirement age. From private pension funds a pension is provided at the earliest and most satisfactory and necessary time.

4. Private pension funds affect the growth rate of savings.

5. Private pension funds serve as an important source for financing investments and as a result for the creation of new jobs. So, the creation of private funds in the direction of our country, where there is a large amount of money outside the financial system, will serve as an important source of financing long-term investments in the most important sectors of the Albanian economy.

6. Private pension funds compared to the public scheme, which is based on the PAYG system, are less open in terms of political manipulation. The results of these funds depend only on the contributions of individuals, management and the capital market, as well as on their good work.

Due to the above factors, we conclude that social security needs the help of private insurance coverage. Today we should all be aware that private pension funds are not an option but a vital necessity for future generations.

In these conditions, it would be worthwhile to operate another pillar, which will help to establish a direct link between contributions and benefits, to improve the level of pensions and reduce the burden, to deal with the budget of the state, to finance the sustainable budget deficits of the Social Insurance Institute, leaving more room for public investment in infrastructure, education and health.

The amendments and additions to the law no. 7703, dated 11.05.1993, "On social insurance in the Republic of Albania", as amended, have been viewed with interest by insurance experts as well as by policy makers.

Changing the pension scheme is an issue of great importance because:

First: The scheme offers lower benefits for some categories and more importantly, the benefits will continue to fall even more if the scheme is not reformed.

Second: In the current scheme some groups of contributors receive very high pensions and contribute much less than others. Consequently redistribution is unfair and makes participation in the scheme as happened the last 8 years.

Third: The pension scheme suffers from a high deficit, which makes the scheme financially unaffordable in the coming years.

Fourth: A large part of the working age population today is uninsured due to high unemployment, but also due to the informality that exists in our society. The changes provided by experts in the field, offer the strengthening of the system based on the genuine contribution principle and the reduction to a high degree of redistribution, enabling individuals to be part of the social security system, as well as to contribute more, stating the current salary.

It is also foreseen to remove the restriction of the maximum pension, up to twice the minimum pension, as well as to remove the calculation with 75% of the net salary. These changes also aim to close the gap between rural and urban pension.

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The European Free Trade Area and Free movement of people in relation to the European Citizenship

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Abstract

The freedom of movement and residence of persons within the EU is the cornerstone of EU citizenship introduced by the Maastricht Treaty in 1992. The gradual removal of internal borders under the Schengen Agreements was followed by the adoption of Directive 2004/38 / EC on the right of EU citizens and their family members to move and reside freely in the EU. Despite the importance of this right, significant obstacles remain in terms of implementation. *This article aims to discuss the principal factors and jurisprudence on the free movement of persons that the Court of Justice of the member states of the European Free Trade Area (EFTA Court) has developed in recent years.* This is certainly of interest to the extent that, departing from the interpretation of the European Court of Justice (Corte GUE) of Directive 2004/38 / EC (so-called Citizenship Directive), the EFTA Court intended to base on the European Directive 2004 / 38 / EC rights of residence for family members of citizens of EFTA states against their home states.

This contribution, based on the stipulations relating to the architecture of the Agreement on the European Economic Area (EEA), undertakes with a critical analysis of the jurisprudence of the EFTA Court. In particular, it will be argued, the EFTA Court adopts a jurisprudential approach that in the EU Pillar, are based on the provisions on European citizenship and presupposes the validity of an “EEA citizenship”. This outcome appears, in the first instance, to satisfy the needs of specific cases, however, produces a strong tension with the aims of the EEA Agreement. In particular, the jurisprudence of the EFTA Court relating to the Directive will be discussed critically, which presupposes in this context the validity of a regulatory framework alike to the European citizenship.

Keywords: The European Free Trade Area, Free movement of people, European Citizenship.

1. Introduction

This contribution, based on the stipulations relating to the architecture of the Agreement on the European Economic Area (EEA), undertakes with a critical analysis of the jurisprudence of the EFTA Court. In particular, it will be argued, the EFTA Court adopts a jurisprudential approach that in the EU Pillar, are based on the provisions on European citizenship and presupposes the validity of an “EEA citizenship”. This outcome appears in the first instance to satisfy the needs of specific cases. However, it produces a strong tension with the aims of the EEA Agreement (extending the internal market to Norway, Iceland and Liechtenstein, excluding them, in any case, from the process of increasingly close political integration). The same happens with the will expressed by the Parties who, in ordering the transposition of Directive 2004/38 / EC in the context of EFTA, had clarified that the concept of Union citizenship has no equivalent in the EEA agreement ¹.

¹ EFTA Court, judgment of 13 May 2020, E-4/19, Campbell; judgment of 26 July 2016, E-28/15, Yankuba Jabbi v The Norwegian Government; judgment of 24 June 2014, E-26/13, Islenska ríkio v Atli Gunnarsson; judgment of 26 July 2011, E-04/11, Arnulf Clauder. These and the other judgments of the Court cited in this

2 The architecture of the Agreement on the European Economic Area (EEA) and the principle of homogeneity

To discuss the jurisprudence of the EFTA Court² in the matter of free movement of persons, it seems necessary to describe the essential features of the context within which it is placed with particular reference to the principle of homogeneity, which is the cornerstone of the EEA system. As is widely known, in 1992 some European states (Norway, Iceland and Liechtenstein), subscribed to the European Free Trade Association (EFTA) and concluded with the European Community the Agreement on the European Economic Area (EEA). That agreement aimed to pursue the objective of “promoting the constant and balanced strengthening of commercial and economic relations between the Contracting Parties in equal conditions of competition and compliance with the same rules, with the aim of establishing a homogeneous European Economic Area” (art. 1 EEA Agreement)³.

The objective of “establishing a homogeneous European Economic Area” consists in extending the internal market (and related rules) to the EFTA States with the consequence that economic operators who find themselves operating within the EEA, regardless of their nationality, have the same rules applied. The fundamental idea is always that of the level playing field - EFTA members on one hand and the European Union on the other - both apply and interpret in the same way the terms of living law. What is relevant is not, in fact, the abstract homogeneity of the corporate standards, *but that the regulatory framework within which the economic life of the single market develops is, in practice, the same*.

It is therefore possible to appreciate the principle of homogeneity, by virtue of which the market rules in force in the two Pillars must be the same, in three of its forms. The first and most important is what could be defined as homogeneity of results: in the material areas of the EEA Treaty, (i) *the same rights must be guaranteed to economic operators, without any discrimination based on their nationality*. At the same time, there are relevant implications of the principle in question in terms of access to justice and the remedies ensured by the legal system. This reading of the principle of homogeneity appears fundamentally superimposable to the principle of reciprocity, which has at its heart a logic of reciprocal exchange and concessions between the Parties. The other two variations of the principle of homogeneity, placed in a relationship of instrumentality with respect to the first, are those of (ii) legislative and (iii) interpretative homogeneity: the first refers to the requirement that the relevant sources in the two Pillars are the same; the second expresses the need for them to receive the same interpretation⁴.

work can be found at the web address <https://eftacourt.int/cases/>.

² Expressed in the CJEU, Court judgment of 12 July 2018, C-89/17, Banger, § 23; judgment of the Court (Grand Chamber) of 5 June 2018, C-673/16, Coman, § 20; judgment of the Court (Grand Chamber) 14 November 2017, C-165/16, Lounes, pg. 33-37; judgment of the Court of 7 July 2017, C-133/15, Chavez Vilchez, p. 53; judgment of the Court of 12 March 2014, C-456/12, O. and B., pg 37-43; judgment of the Court of 5 May 2011, C-434/09, McCarthy, pg. 31-40; judgment of the Court of 8 November 2012, C-40/11, Iida, pg. 61-64.

³ Agreement on the European Economic Area, in the Official Gazette of the European Communities no. L 1 of 03 January 1994, p. 3. For the history of the EEA Agreement, see S. NORBERG – M. JOHANSSON, The History of the EEA Agreement and the First Twenty Years of Its Existence, in C. BAUDENBACHER (ed.), The Handbook of EEA Law, Cham, 2016, p. 3.

⁴ V. R.O. KEOHANE, Reciprocity in international relations, in International Organization, n.1 / 1986, p. 8:

Therefore, if the principle of homogeneity in its first understanding operates on the level of the rights of operators, the other two instead refer to institutional mechanisms. The first concerns the desired result, the other two concern the means for this purpose. On the other hand, the principles just mentioned must be balanced with the need to guarantee and preserve the decision-making autonomy of EFTA States. In fact, since the conclusion of the Agreement, these are not willing to transfer any power that is the expression of state sovereignty to a supranational organization, wishing to keep their independence and autonomy. As regards the architecture of the EEA Agreement, it follows a rather complex institutional and procedural framework, defined as “Byzantine”, which cannot be traced here except in the essential features. As for the mechanisms designed to ensure legislative homogeneity between the two Pillars, it is necessary to distinguish between the law in force in the EU at the date of the conclusion of the EEA Agreement and that subsequently approved⁵. In the first case to the extent that it was relevant for the purposes of the functioning of the internal market, this has been directly reflected in the Agreement. Primary law finds its equivalent in the articles of the Agreement, while the Annexes to the same contain, sector by sector, references to the Union acts applicable in the context of the EFTA Pillar. The question relating to the “new” law and the mechanisms provided for by the EEA Agreement, it is more articulated. In this regard, the work of the Joint Committee is central (articles 92-94 EEA Agreement), which, composed of representatives of the Contracting Parties (EU and EFTA States), has the task of selecting the relevant legislation for EEA purposes. That legislation, that is, with respect to which homogeneity between the two Pillars must be guaranteed due to the need to ensure the correct functioning of the market⁶. Once the Committee has (unanimously) reached an agreement, a Decision is adopted aimed at amending the relevant provisions of the annexes to the Agreement, providing for the addition of references to the new European legislation and possibly the elimination of references to that. In a nutshell, these are the mechanisms responsible for achieving legislative homogeneity between the two Parties.

In reference to the jurisdictional mechanisms responsible for the realization of the interpretative homogeneity and omitting instead, due to their little use, the political mechanisms for resolving disputes between the Parties to the Agreement (centered, once again, on the body of the Joint Committee), we must look at the work of the EFTA Court and its relations with the Court of Justice. The Agreement essentially provided for a monist judicial mechanism, centered on a top court capable of binding the interpretative activity of both the Court of Justice and the courts of the EFTA States to ensure homogeneity of interpretation to a “two-pillar” solution.

Thus, the Court of Justice interprets the Agreement in the Pillar of the Union, while the EFTA Court performs the same function in the EFTA area. The two Courts, despite the obligation for the EFTA Court to take due account of the case law of the first, are not hierarchically ordered. To be precise, the EFTA Court must interpret the EEA Agreement, where its provisions are identical in substance to the corresponding

“reciprocity refers to exchanges of roughly equivalent values in which the actions of each party are contingent on the prior actions of the others in such a way that good is returned for good, and bad for bad”.

⁵ M.CREMONA, The “dynamic and homogeneous” EEA: Byzantine structures and various geometry, in *European Law Review*, n.5 / 1994, p. 508.

⁶ V. T. VAN STIPHOUT, Homogeneity vs. Decision-Making Autonomy in the EEA Agreement, in *European Journal of Law Reform*, n.3 / 2007, p. 431.

provisions in force in the EU Pillar, in accordance with the jurisprudence of the Court of Justice prior to the signature of the Agreement (Article 6 EEA Agreement). It has to take into account, however, as to the subsequent one, its more limited nature (Article 3, paragraph 2 of the Agreement between the EFTA States on the establishment of a Supervisory Authority and a Court of Justice). *It was noted that the EFTA Court has never developed this distinction, preferring, instead, to faithfully follow the Court of Justice also about the jurisprudence subsequent to the signing of the Agreement.*

Thus, despite the jurisdictional pluralism that characterizes the relations between the two Pillars of the European Economic Area, where two mutually autonomous, albeit coordinated Courts operate, if one considers the practice that has developed over the past 30 years, it can be assumed that the 'The agreement proved surprisingly resilient, managing to ensure the necessary homogeneity between the two Pillars. In this regard - and despite the full acceptance of authoritative studies that have highlighted the mutual influence of the two Courts - it has been observed that, so far the system outlined above has worked, because "the supreme authority on the interpretation of EEA law rests firmly with the ECJ, if not *de jure* then certainly *de facto*'⁷.

3 The other side of the coin: structural inhomogeneity. The case of European citizenship

If the principle of homogeneity is one of the two cornerstones of the EEA Agreement, the second of these is its reverse: the principle of structural inhomogeneity. *This means that, in matters not included in the material scope of application of the EEA Agreement, the Parties maintain their independence perfectly unchanged.* In this regard, if it is true that there are matters that are outside the scope of the Agreement, it is also true that there is no lack of gray areas. There are in fact matters that, although not included in the Agreement, are more or less strictly connected to EEA law: the best-known cases are those relating to the inoperability within EFTA of the principles of primacy and direct effect and non-applicability of the Nice Treaty⁸.

In both cases, there is certainly an asymmetry in terms of the law in force in the two Pillars: on the one hand, the validity of the principles of direct effect and primacy in the EFTA Pillar is **explicitly excluded**. On the other hand, the Nice Charter is not incorporated into the Agreement. The different nature of the Treaties is therefore decisive. If the European Treaties (TEU and TFEU) have the ambition of constituting

⁷ P. SPEITLER, Judicial Homogeneity as a Fundamental Principle of the EEA, in C.BAUDENBACHER (a cura di), *The Fundamental Principles*, cit., p. 19; C.BAUDENBACHER, *The Relationship Between the EFTA Court and the Court of Justice of the European Union*, in ID.(a cura di), *The Handbook*, cit., p. 179; H.H. FREDRIKSEN, *One Market, Two Courts: Legal Pluralism vs. Homogeneity in the European Economic Area*, in *Nordic Journal of International Law*, n.4/2010, p.481; D.GALLO, *I rapporti tra Corte EFTA e Corte CE nell'ambito del processo di "cross-fertilization" tra le due giurisdizioni*, in *Diritto dell'Unione Europea*, n.1/2007, p. 153.

⁸ See EFTA Court, judgment of 3 October 2007, E-1/07, *Criminal proceedings against A*, p. 36.; sentence of 10 December 1998, E-9/97, *Sveinbjornsdottir*, p. 44., particularly clear: "since the case law is largely based on special characteristics of the Community legal order that are not found in the EEA Agreement, this case law is not transferable to the EEA Agreement by virtue of Article 6 EEA. Relevant differences between the EEA Agreement and the EC Treaty include the absence in the EEA Agreement of important principles of Community law such as transfer of legislative powers, direct effect and primacy of Community legislation". In *doctrine*, v. S. MAGNÚSSON –Ó.Í.HANNESSON, *State liability in EEA law: towards parallelism or homogeneity?*, in *European Law Review*, no.2 / 2013, p. 167.

“a new stage in the process of creating an ever-closer union between the peoples of Europe” (art. 1 TEU), the EEA Agreement is concerned “only to” promote the constant and balanced strengthening of commercial and economic relations between the Contracting Parties under equal conditions of competition and compliance with the same rules” (Article 1 EEA Agreement). In these cases, it seems correct to speak, therefore, of structural inhomogeneity: the difference in law between the two EEA Pillars does not occur “accidentally” (due, for example, to a delay in the transposition of the relevant acts for EEA purposes). On the contrary, the conditions for the operation of the principle of homogeneity are absent: the lack of homogeneity in the law in force between the two Pillars is a necessary consequence of the different nature and purpose of the respective Treaties, hence the characterization as “structural”. Rather, the question becomes whether the different purposes between the two Treaties are suitable for justifying discrimination between subjects belonging to one or the other Pillar. In other words, the inoperability of the principle of homogeneity in terms of legislative and interpretative homogeneity is not always suitable for excluding the operation of the principle of homogeneity of results.

Thus, even if the subjects operating in the EFTA Pillar do not have the same instruments operating in the EU, where this determines a discrimination of them with respect to their payments in the other Pillar, relevant for the purposes of achieving equal market conditions (and therefore for the purposes of EEA law). The principle of homogeneity of results requires that instruments be provided in favor of these, which, although different, are suitable for placing them in situations similar to those of their counterparties in the EU Pillar. Indeed, these perform an important function for the purpose of defining the conditions for carrying out the activity of economic operators in the internal market: primacy and direct effect ensure the effectiveness of supranational legislation; fundamental rights contribute to supplement the relevant legislation. Consequently, with reference to the question of fundamental rights, the Court considered them general and unwritten principles of EEA law and this allowed it a certain flexibility in their use. This favored by extensive references to ECHR law and jurisprudence, managing to achieve comparable interpretations to those reached by the GUE Court, although without having to recognize the validity, in the context of EFTA, of the Charter of Nice⁹.

As for primacy and direct effect, the doctrines of the so-called quasi-primacy (which wants the prevalence of the provisions of legislative rank of EEA law incorporated in national laws on conflicting provisions of legislative rank) and of the so-called quasi-direct effect (essentially a responsibility of the States for violation of EEA law “reinforced”). In this approach they offered individuals a satisfactory level of protection, albeit in the presence of radically different institutional premises. Discussions have arisen in relation to the institution of Union citizenship and, in particular, to the transposition within EFTA of Directive 2004/38 / EC, also known as the *Citizenship Directive*. EEA purposes of the rules on the free movement of persons, the sources of which, in the EU Pillar, consist of provisions of both primary law, Articles 45-55 TFEU (reproduced in the Agreement), and secondary law (incorporated

⁹ Recently v. EFTA Court, judgment of 19 April 2016, E-14/15, *Holship AS*; judgment of 9 July 2014, Joined cases E-3/13 and E-20/13, *Fra care of Olsen*; judgment of 28 April 2012, E-15/10, *Posten Norge AS*. Protocol 35 to the EEA Agreement imposes the obligation on the EFTA States to introduce in their legal system a provision of legislative rank by virtue of which the prevalence of an EEA standard that has been implemented in national law over a conflicting provision is guaranteed of legislative rank of the same.

in the Annexes).

Until the approval of Directive 2004/38 / EC, the system of the EEA agreement had not shown any particular issues with reference to the matter of the movement of people. On the other hand, the process of transposition of the Directive in the EFTA context proved to be rather problematic. In fact, on the one hand the Directive is an essential legal reference in the field of free movement of persons since it replaces the previous legislation. On the other hand, it is undisputed that this achieves a degree of integration that transcends the objectives of economic integration pursued by the EEA Agreement, being informed by the constitutional logic of European citizenship, destined "to be the fundamental status citizens of the Member States". More fundamentally, just by looking at the free movement of persons, it is easy to observe the divergence, above all of purpose, between the two systems. In the Pillar of the Union, in fact, this matter has been strongly influenced by the introduction of Union Citizenship, which has no equivalent in the EEA. It reproduces the relevant provisions of the European Treaties in their «pre-Maastricht» version. To "update it" it is not possible to use the procedure outlined above, which, is limited to the annexes only. The amendment of the Agreement can only be achieved through the ordinary procedure of revision of international treaties, to date never implemented by the contracting parties. For its part, the EFTA Court ruled (correctly) to be able to bridge the gap between the two Pillars by way of interpretation, directly or by analogy applying provisions that have not been incorporated into the EEA Agreement. Consequently, as far as is relevant here, the provisions on European citizenship, as well as art. 79 TFEU (in the matter of common immigration policy, which also includes the rules on family reunification) do not have their counterpart under the EEA Agreement. This, moreover, is entirely consistent with the different nature and purpose of cooperation, as well as with the lower degree of integration pursued by the member states of EFTA.

It is not surprising then that the process of transposition of the Directive proved to be rather troubled, so much so that the Union came, as a safeguard measure, to partially suspend the Agreement. The provisions of the directive aimed at family members of European citizens were particularly critical. To resolve the conflict that had arisen within the Joint Committee, the Parties resolved to adopt a Decision by which the Directive was transposed into the EFTA framework, however, introducing the following Declaration, "the concept of Union Citizenship introduced by the Maastricht Treaty [...] has no equivalent in the EEA Agreement"¹⁰.

The integration of Directive 2004/38 / EC into the EEA Agreement does not affect the assessment of the relevance for the EEA of future EU legislation and the future jurisprudence of the European Court of Justice based on the concept of Union Citizenship. The EEA Agreement does not constitute a legal basis for the political rights of EEA citizens. The Contracting Parties agree that the EEA Agreement does not cover immigration policy. The residence rights of third-country nationals are outside the scope of the Agreement, except for the rights granted by the Directive to third-country nationals who are family members of an EEA citizen or citizen exercising his right to free movement to under the EEA Agreement, as these rights are a corollary

¹⁰ A. TRYFONIDOU, The impact of Union citizenship on the EU's market freedoms, Oxford and Portland, Oregon, 2016, p. 79. See EFTA Court, judgment of 24 January 2003, E-01/02 -EFTA Surveillance Authority v The Kingdom of Norway; judgment of 22 February 2002, E-1/01, Einarsson. H.H. FREDRIKSEN, Bridging the Widening Gap between the EU Treaties and the Agreement on the European Economic Area, in European Law Journal, n.6 / 2012, p. 871.

of the right of free movement of EEA citizens. The EFTA States recognize that, for EEA citizens exercising their right to free movement, it is important that their family members within the meaning of the Directive who are third-country nationals also enjoy derived rights such as those Articles 12 (2), 13 (2) and 18. This does not affect either Article 118 of the EEA Agreement or the future development of independent rights of third country nationals who do not fall within the scope of the EEA Agreement". The Declaration is not very easy to interpret. Certainly, the Directive is not "a legal basis for the political rights of EEA citizens", nor does it involve the extension of the Agreement to the law on immigration (except contain provisions in this context, to be classified as exceptions to the rule). The more uncertain is the normative scope of the statement according to which "the concept of Union citizenship has no equivalent in the EEA Agreement".

The general idea, however, is that in the EFTA context the level of integration between the Member States in the matter of free movement of persons is lower than that achieved in the other Pillar and that, in the context in question Member States are less inclined to be subjected to limitations on their sovereignty. Trying to further specify this first conclusion, it seems possible to argue that the regulatory paradigm of reference in the context of the free movement of persons remains, subject to specific provisions, the one in force, in the Union, prior to the entry into force of the Maastricht Treaty. *In a nutshell, this implies unlimited access to the labor market, full application of the principle of non-discrimination, extension of free movement also to economically inactive individuals, full freedom of the Member States as regards the definition of the conditions for granting and revoking citizenship, necessity of the cross-border element and consequent inapplicability of supranational law to purely internal situations.*

Based on the analysis above, then, the EFTA Court would need to interpret restrictively the Directive and to carefully examine the jurisprudence of the Court of Justice, to exclude the evolutions of the constitutional logic of European Citizenship, which remains outside the material scope of the EFTA Agreement. In that regard the EFTA Court carried out a meticulous and rigorous interpretative work, consistent, moreover, with what it affirmed: "the principle of homogeneity leads to a presumption that provisions framed in the same way in the EEA Agreement and EC law are to be construed in the same way. However, differences in scope and purpose may under specific circumstances lead to a difference in interpretation between EEA law and EC law". A more careful analysis of the jurisprudence of the EFTA Court, on the other hand, returns a different image¹¹.

4 European citizenship in the European Free Trade Association between homogeneity and differences

The EFTA Court has adopted a "vigorously teleological" interpretative approach, all aimed, as made explicit by the Court itself, at giving full effect to the principle of homogeneity in its declination of homogeneity of results. In this way, however, the Court seems to overlook the interpretative limits that would derive from a rigorous

¹¹ J.JONSDOTTIR, *Europeanization and the European Economic Area*, London, 2013, Cap. 5, *European citizenship and free movement of persons*, p. 96. V. K.B.BJORGVINSSON, *Free Movement of Persons*, in C. BAUDENBACHER, (ed.), *The Handbook*, cit., P. 473. Decision of the EEA Joint Committee of 7 December 2007, n. 158/2007 in the Official Journal of the European Union, L 124 of 8 May 2008, p. 20.

reading of the letter of the regulatory law and from the equally precise reconstruction of the institutional architecture of the Agreement, in particular as regards the question of European citizenship¹². In fact, the EFTA Court achieves, albeit through a not too rigorous interpretative operation, the same results produced, in the EU Pillar, by a radically different regulatory framework, informed by the constitutional logic of European citizenship. In this regard, in dealing with the concept of structural inhomogeneity and in retracing the most relevant cases, that in relation to them it is necessary to verify whether there is actually discrimination in treatment between EU citizens and citizens of EFTA Member States. In particular, in this case, if such discrimination reflects on the conditions under which they access and operate in the internal market. In this eventuality, in fact, it will be necessary to find solutions for which said conditions are equal, albeit on the basis of solutions that are not necessarily identical in the two Pillars.

Based on the above, the implementation of the principle of homogeneity does not require that even in the EFTA Pillar, individuals have, by virtue of EEA law, rights against the States of origin. To fulfill this, it is enough to construct the reciprocal case, so to speak, mirroring the case of Mr. Jabbi. Jabbi, is a Gambian citizen who meets the future Mrs. Jabbi in Norway, an economically inactive Spanish citizen legally resident in the country. The two get married and, a short time later, Mrs. Jabbi returns to Spain and Mr. Jabbi, wanting to accompany her, applies for a residence permit as the spouse of a European citizen who had exercised his freedom of movement. What is the solution to be given to the case just described? Again, the question of law is inherent in the basis of the rights claimed by an individual who has exercised his freedom of movement against his State of origin. First, it will be noted that the case will be decided in the EU Pillar of the EEA, in particular by the Spanish authorities (first administrative and judicial in the event of an appeal against a provision of the former) and, in the case of a preliminary ruling, by the GUE Court.

Consequently, in this context, it seems to be excluded that the case of Mr. Jabbi can be decided on the basis of Directive 2004/38 / EC. On closer inspection, the case will not be resolved even by virtue of the provisions on European citizenship. First, with regard to art. 21 TFEU, it should be noted that the EFTA states, for the purposes of European citizenship, cannot be considered member states, having to be considered third states. Not even another argument, aimed at granting Mr. Jabbi the right of residence in Spain, would have better luck. The argument referred to this case is the argument at the basis of Ruiz Zambrano: that, that is, according to which "Article 20 TFEU precludes national measures that have the effect of depriving Union citizens of the real and effective rights attributed by their status as citizens of the Union". In this regard, the Court ruled that a national legislation which does not recognize the right of residence to the spouse of a Union citizen deprives the latter (forcing him to leave the territory of the Union) of the enjoyment of the substance of the rights conferred on him by the status of European citizen. To the situation of Mrs. Jabbi, therefore, only national law would apply, but not so in the EFTA pillar, where they also find legal protection under EEA law, as interpreted by the EFTA Court. But then, if the decision-making outcomes in Jabbi and Jabbi are opposed not only as regards the protection granted to individuals, but also the vertical division of competences

¹² T. BURRI –B.PIRKER, Constitutionalization by Association? The Doubtful Case of the European Economic Area, in *Yearbook of European Law*, n.1/2013, p. 207-219.

thus achieved, it seems to be possible to argue that the principle of homogeneity is not suitable to support the interpretative operation undertaken by the EFTA Court. Rather, it is easily realized that the Court, following this interpretative line, has in fact introduced an “EEA citizenship”. In fact, the result achieved by the Court is identical to that which would occur, in the EU Pillar, in the case of a (for example) Spanish citizen who went to France, married a citizen of a third state and then wanted to return to Spain. In this case, art. 21 TFEU, the wife of the Spanish citizen would have a right of residence. However, the movement of a citizen of the Union between Member States of the same is another thing, another thing is the movement, for example, of a Norwegian citizen to Iceland or Liechtenstein (or even a Member State of the European Union). This is due to the different aims of the two integration projects, recognized by the EFTA Court itself¹³.

The above analysis, which is marked by the extension of the purposes of the EEA Agreement, is indicative of an underlying problem of the law of the EEA Agreement and, at least in part, of the phenomenon of external differentiation. It refers to the difficulty of selecting, within the European Union legal system, a certain core of rules and arranging their transposition, isolating them from the context in which they were originally placed, in another legal context, characterized by different purposes. It is not difficult then to explain the occurrence of cases, such as the one above, in which there is an under-protection of fundamental rights. These cases therefore present the alternative, whose solution is ultimately vested in the courts, between safeguarding the “purity” of the Agreement and, therefore, the limited and restricted nature of the aims of supranational integration on the one hand and the protection of fundamental rights of individuals on the other. In this alternative, however, it is also necessary to duly take into account the requirements of predictability of the law of the EEA Agreement for the Parties thereof and, in particular, of the EFTA States.

EFTA states undergo, in relation to large portions of their legal systems, the “hegemony” of European law, the formation of which they are able to influence only marginally. In this context, therefore, EEA law derives much of its legitimacy in the EFTA Pillar from the confidence that EFTA States place in the selective effectiveness of the institutional mechanisms provided for by the Agreement for the transposition of the relevant Union law and, ultimately, therefore, in the degree of predictability of the integration that it realizes. The risk is that, due to a marked unpredictability of the results produced by the mechanisms of the Agreement and rules imposed which they did not think they had allowed. What follows in terms of the Parties’ distrust of its correct functioning, these resort to more rigid “upstream” guarantees, which ensure greater control by the Parties over the law to which they are subjected, with the probable consequence of the limited protection of the interests of individuals¹⁴.

¹³ CJEU, Judgment of the Court of 5 May 2011, C-434/09, McCarthy; v. also, more recently, Judgment of the Court of 27 February 2020, C-836/18, Subdelegación del Gobierno en Ciudad Real v. RH; Judgment of the Court (Grand Chamber) of 8 May 2018, C-82/16, K.A. In doctrine, v. K. LANAERTS, ‘Civis Europaeus Sum’: From the Cross-border Link to the Status of Citizen of the Union, in P. CARDONNEL – A. ROSAS – N. WAHL (ed.), *Constitutionalizing the EU Judicial System Essays in Honor of Pernilla Lindh*, Hart Publishing, Oxford and Portland, Oregon, 2012, p. 213, spec. pg. 229-232.

¹⁴ C. TOBLER, *Bikers Aren’t Welcome*. (Jan Anfinn Wahl v. The Icelandic State, EFTA Court, Judgment of 22 July 2013, E-15/12), in *European Law Reporter*, 2013, p. 250, spec. p. 254.

Conclusions

This article has provided a succinct overview of the tensions, as reflected in the jurisprudence of the EFTA Court, on the right of the free movement of persons between the EEA and EFTA pillars. Specifically, the interpretation the EFTA Court gave Directive 2004/38 / EC - considered suitable for establishing rights against States of origin - introduced a sort of "EEA citizenship" in direct tension with the institutional framework of the EEA. Specifically, the Court implicitly extended the aims of the Agreement on the protection of the fundamental rights of individuals (limited to the scope of the free movement of persons) by introducing the concept of citizenship that the parties had explicitly excluded. The more the European Union proceeds to an ever-closer union, the more tension there will be with its applicability in EFTA and more frequently the EFTA court will be called upon to resolve issues that are of a political character. This means that the EFTA court will have to be ever-vigilant to not lose sight of its main purpose and refrain from crossing into explicitly political issues that have not been included in the Agreement.

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An Application Example of Sentiment Analysis Using R

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Abstract

Sentiment analysis is a machine learning tool that analyzes texts for polarity, from positive to negative. Machines automatically learn how to detect sentiment without human input, only by training machine learning tools with examples of emotions in text. To put it simple, sentiment analysis is the process of analyzing a piece of text and to determine if the writer's attitude towards the subject matter is positive, negative, or neutral. Sentiment analysis models can be trained to read far off trivial definitions, to understand things like, context, sarcasm, and misapplied words. [4] In this paper we have given an application example of sentiment analysis using R, that of the Tolstoy's book, "Anna Karenina". For our analysis, we have used the AFINN, BING and NRC lexicons. Some text analysis, such as bigrams, trigrams etc., is done, as well.

Keywords: Application Example, Sentiment Analysis Using R.

1. Introduction

Sentiment analysis is a research branch placed at the heart of natural language processing (NLP), computational linguistics and text mining. It refers to any measures by which subjective information is extracted from textual documents. In other words, it extracts the polarity of the expressed opinion in a range spanning from positive to negative. As a result, one may also refer to sentiment analysis as opinion mining (Pang and Lee 2008). Sentiment analysis is used for many applications, especially in business intelligence. Some examples of applications for sentiment analysis include:

- Analyzing the social media discussion around a certain topic;
- Evaluating survey responses;
- Determining whether product reviews are positive or negative.

Sentiment analysis is applied to a numerous domains and textual sources. Research has worked out various approaches to measuring sentiment. We mention here an overview by Pang and Lee, 2008 which is a comprehensive, domain-independent study on the subject.

On the one hand, machine learning viewpoints are preferred when one attempts for high prediction performance. However, machine learning usually works as a black-box, thereby making interpretations difficult. On the other hand, dictionary-based approaches generate lists of positive and negative words. The respective occurrences of these words are then combined into a single sentiment score. Therefore, the underlying decisions become traceable and researchers can understand the factors that result in a specific sentiment.

In addition, sentiment analysis allows us to generate tailored dictionaries. These are customized to a specific domain, improve prediction performance compared to pure dictionaries and allow full interpretability. Details of this methodology can be found in (Pröllochs, Feuerriegel, and Neumann 2018).

In the process of performing sentiment analysis, one must convert the running text into a machine-readable format. This is achieved by executing a series of preprocessing operations. First, the text is tokenized into single words, followed by some preprocessing steps which will be described in the other section. [1]

2. Sentiment Analysis

Sentiment Analysis is a process of extracting opinions that have different polarities. By polarities, we mean positive, negative or neutral. It is also known as opinion mining and polarity detection. With the help of sentiment analysis, we can find out the nature of opinion that is reflected in documents, websites, social media feed, etc. Sentiment analysis is a type of classification where the data is classified into different classes. These classes can be binary in nature (positive or negative) or, they can have multiple classes (happy, sad, angry, etc.). Sentiment analysis is not perfect, and as with any automatic analysis of language, many of us will have errors in our results. It also cannot tell us why a writer is feeling a certain way. However, it can be useful to quickly summarize some qualities of text, especially if we have so much text that a human reader cannot analyze all of it. As we mentioned above, the process of performing sentiment analysis involves converting the text into a machine-readable format. This is done using a number of preprocessing steps:

- tokenize the text into single words,
- remove stop-words and punctuation,
- stem the text,
- convert it to lowercase.[1, 6]

Originally, sentiment analysis was tested on product reviews on e-commerce platforms such as Amazon.com, where these issues play a relatively minor role. In the case of press texts or discourse in social media, on the other hand, it is often more difficult to evaluate what a sentiment rating refers to or what sentiment level should be regarded as “normal”. For example, press texts generally express little emotion, and negative terms often predominate, without this necessarily being due to a bad state of the world. Finally, one should bear in mind that sentiment analysis is a heuristic procedure that always produces incorrect individual classifications, which ideally does not carry too much weight when examining some changes in the sentiment course over time. There are many ways to do sentiment analysis. Many approaches use the same general idea, however:

- Create or find a list of words associated with strongly positive or negative sentiment;
- Count the number of positive and negative words in the text;
- Analyze the mix of positive to negative words.

Many positive words and few negative words indicates positive sentiment, while many negative words and few positive words indicates negative sentiment. The first step, creating or finding a word list (also called a lexicon), is generally the most time-consuming. While we can often use a lexicon that already exists, if our text is discussing a specific topic we may need to add to or modify it.[2] Computational text analysis has become an exciting research field with many applications in communication research. It can be a difficult method to apply, however, because it requires knowledge of various techniques, and the software required to perform most of these techniques is not readily available in common statistical software packages. As a popular open-source platform, R has an extensive user community that develops

and maintains a wide range of text analysis packages. R is a free, open-source, cross-platform programming environment. In contrast to most programming languages, R was specifically designed for statistical analysis, which makes it highly suitable for data science applications. Although the learning curve for programming with R can be sharp, especially for people without prior programming experience, the tools now available for carrying out text analysis in R make it easy to perform powerful,

cutting-edge text analytics using only a few simple commands. One of the keys to R's explosive growth (Fox & Leanage, 2016; Tiobe, 2017) has been its densely populated collection of extension software libraries, known in R terminology as packages, supplied and maintained by R's extensive user community. Each package extends the functionality of the base R language and core packages, and in addition to functions and data must include documentation and examples, often in the form of vignettes demonstrating the use of the package. The best-known package repository, the Comprehensive R Archive Network (CRAN), currently has over 10,000 packages that are published, and which have gone through an extensive screening for procedural conformity and cross-platform compatibility before being accepted by the archive. R thus features a wide range of inter-compatible packages, maintained and continuously updated by scholars, practitioners, and projects such as RStudio and rOpenSci. Furthermore, these packages may be installed easily and safely from within the R environment using a single command. R thus provides a solid bridge for developers and users of new analysis tools to meet, making it a very suitable programming environment for scientific collaboration. Text analysis in particular has become well established in R. There is a great collection of dedicated text processing and text analysis packages, from low-level string operations (Gagolewski, 2017) to advanced text modeling techniques such as fitting Latent Dirichlet Allocation models (Blei, Ng, & Jordan, 2003; Roberts et al., 2014)-about 50 packages in total. Furthermore, there is an increasing effort among developers to cooperate and coordinate, such as the rOpenSci special interest group. One of the main advantages of performing text analysis in R is that it is often possible, and relatively easy, to switch between different packages or to combine them. Recent efforts among the R text analysis developers' community are designed to promote this interoperability to maximize flexibility and choice among users. As a result, learning the basics for text analysis in R provides access to a wide range of advanced text analysis features.

3. Lexicons

Sentiment analysis is done based on lexicons. A lexicon in simpler terms is a vocabulary, say the English lexicon. In this context, a lexicon is a selection of words with the two polarities that can be used as a metric in sentiment analysis. There are many different types of lexicons that can be used depending on the context of the data we are working with. There is also a possibility of creating a custom lexicon depending on how much customisation we would like to make with our data.

The AFINN lexicon is perhaps one of the simplest and most popular lexicons that can be used extensively for sentiment analysis. It is a list of English terms manually rated for valence with an integer between -5 (negative) and +5 (positive) by Finn Årup Nielsen between 2009 and 2011. The AFINN lexicon was developed in 2009

primarily to analyze Twitter sentiment ([Nielsen 2011](#)). It consists of 2,477 words with 878 positive and 1,598 negative on a scale of -5 to +5, as we mentioned above, with a mean of -0.59. The Bing lexicon uses a binary categorization model that sorts words into positive or negative positions. It has been developed by Minqing Hu and Bing Liu starting with their 2004 paper where their goal was opinion mining of customer reviews ([Hu and Liu 2004](#)). It contains a total of 6,786 word - 2,005 positive and 4,781 negative. Classification is binary, a word is either positive or negative. Word-Emotion Association (NRC Emotion Lexicon) is another lexicon. It is a list of 5,636 English words and their associations with eight basic emotions (anger, fear, anticipation, trust, surprise, sadness, joy, and disgust) and two sentiments (negative and positive). The annotations were manually done by crowdsourcing on Amazon Mechanical Turk and detailed in a paper by Mohammad and Turney ([2013](#)). ([7, 8] The tidytext package provides access to several sentiment lexicons. The function `get_sentiments()` allows us to get specific sentiment lexicons with the appropriate measures for each one.

```
library(tidytext)
```

```
head(get_sentiments("afinn"))
```

```
## # A tibble: 6 x 2
```

```
##   word      value
```

```
##   <chr>    <dbl>
```

```
## 1 abandon    -2
```

```
## 2 abandoned  -2
```

```
## 3 abandons   -2
```

```
## 4 abducted   -2
```

```
## 5 abduction  -2
```

```
## 6 abductions -2
```

```
head(get_sentiments("bing"))
```

```
## # A tibble: 6 x 2
```

```
##   word      sentiment
```

```
##   <chr>    <chr>
```

```
## 1 2-faces  negative
```

```
## 2 abnormal negative
```

```
## 3 abolish  negative
```

```
## 4 abominable negative
```

```
## 5 abominably negative
```

```
## 6 abominate negative
```

```
head(get_sentiments("nrc"))
```

```
## # A tibble: 6 x 2
```

```
##   word      sentiment
```

```
##   <chr>    <chr>
```

```
## 1 abacus   trust
```

```
## 2 abandon  fear
```

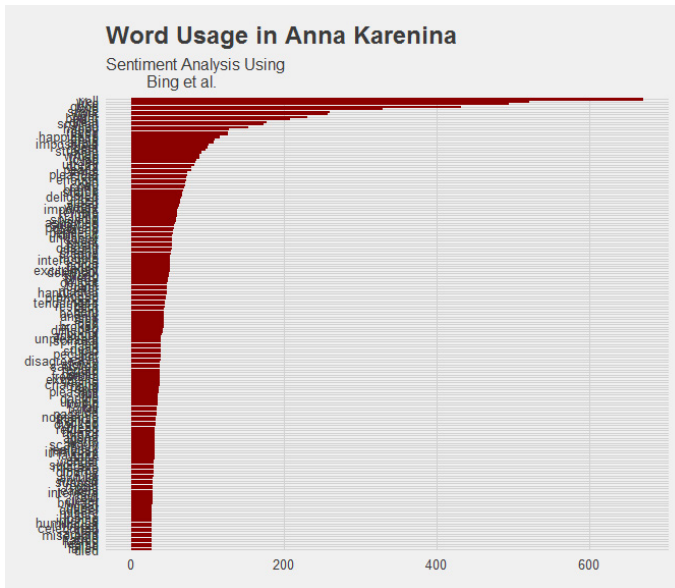
```
## 3 abandon  negative
```

```
## 4 abandon  sadness
```

```
## 5 abandoned anger
```

```
## 6 abandoned fear
```

nrc seems to have large number of words and their sentiments compared to other



```
library(tidytext)
library(textdata)
library(stringr)
library(tidyr)
library(dplyr)
library(reshape2)
library(wordcloud)
library(scales)
library(ggthemes)
library(ggraph)
library(igraph)
library(widyr)
library(SentimentAnalysis)
library(tm)
options(digits = 3)
gutenberg_metadata
```

Now, let's use `ggplot2` to produce a horizontal bar chart showing positive and negative word usage in *Anna Karenina* using the Bing et al. sentiment lexicon.

We can also use the NRC sentiment lexicon to get a better insight into how specific emotions play a role in a given text by filtering the data and joining it to our tokenized text. To see, for example, how fear appears in *Anna Karenina*, we can run the following code chunks:

```
nrc_fear <- get_sentiments("nrc") %>%
  filter(sentiment == "fear")
nrc_fear
tidy_tolstoy %>%
  filter(gutenberg_id == 1399) %>%
  inner_join(nrc_fear)
```

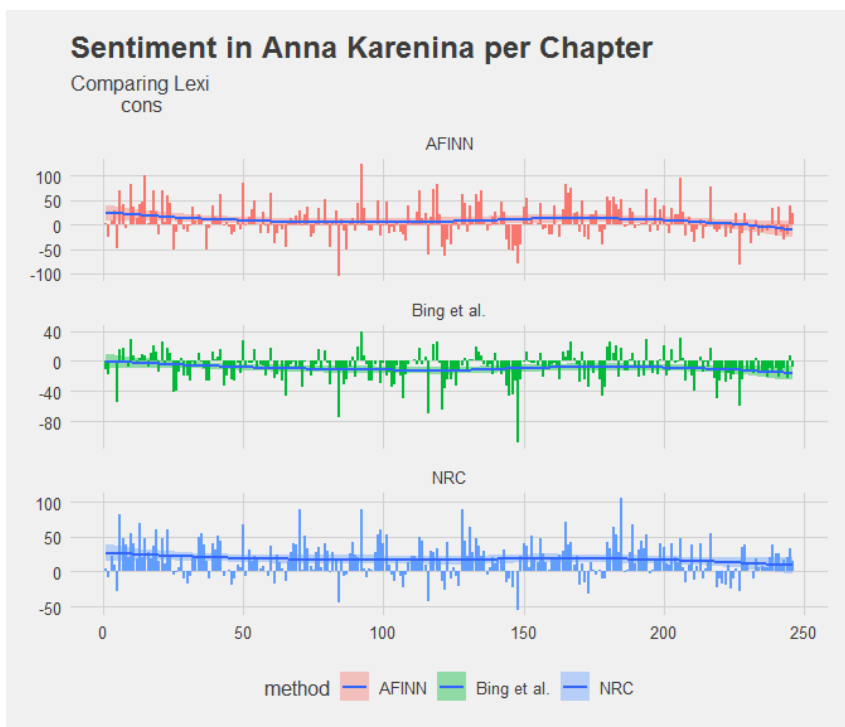
negative



positive

The following tibbles show the sentiment values with different lexicons in Anna Karenina per chapter. We have plotted the sentiment in Anna Karenina per chapter, comparing lexicons, as well:

```
## # A tibble: 246 x 3
##   index sentiment method
##   <int>   <dbl> <chr>
## 1     1     2 AFINN
## 2     2    -24 AFINN
## 3     3     8 AFINN
## 4     4    30 AFINN
## 5     5   -48 AFINN
## 6     6    70 AFINN
## 7     7    42 AFINN
## 8     8    -8 AFINN
## 9     9     0 AFINN
## 10    10    84 AFINN
## # ... with 236 more rows
```

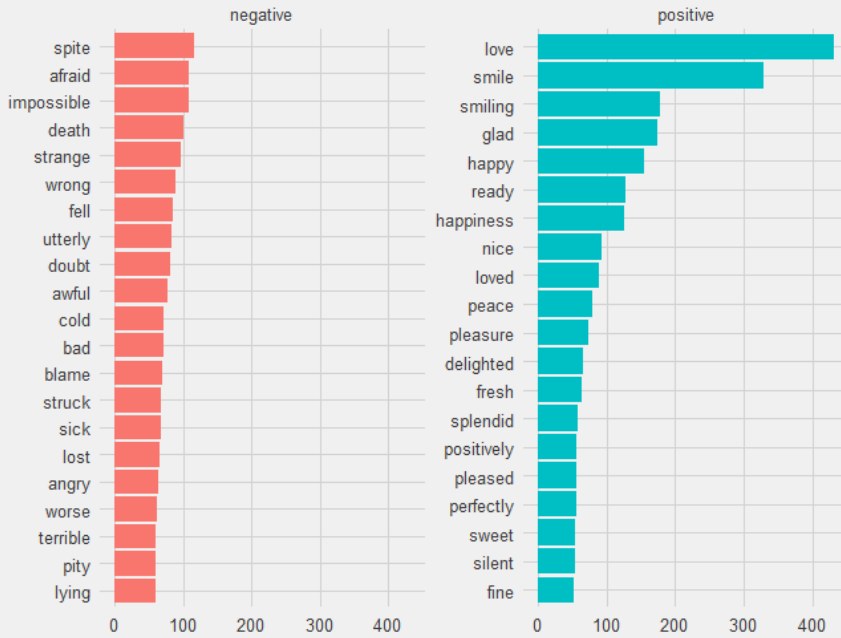


```
## # A tibble: 492 x 5
##   method   index negative positive sentiment
##   <chr>   <int>   <dbl>   <dbl>   <dbl>
## 1 Bing et al. 1     24     13    -11
## 2 Bing et al. 2     23      6   -17
## 3 Bing et al. 3     31     30     -1
## 4 Bing et al. 4     53     50     -3
## 5 Bing et al. 5     89     35   -54
## 6 Bing et al. 6     73     89     16
## 7 Bing et al. 7     23     40     17
## 8 Bing et al. 8     14     13     -1
## 9 Bing et al. 9     22     14     -8
## 10 Bing et al. 10    65     94     29
## # ... with 482 more rows
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```

The following plots show words' contribution to sentiment in Anna Karenina, using the Bing et. al, the first and the nrc, the second.

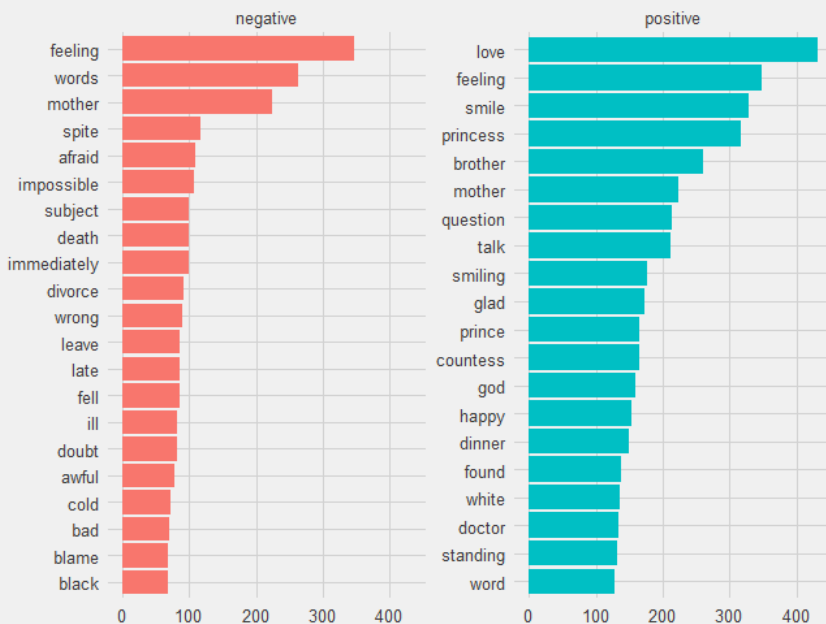
Words' Contribution to Sentiment in Anna Karenina

Using the Bing et. al Lexicon



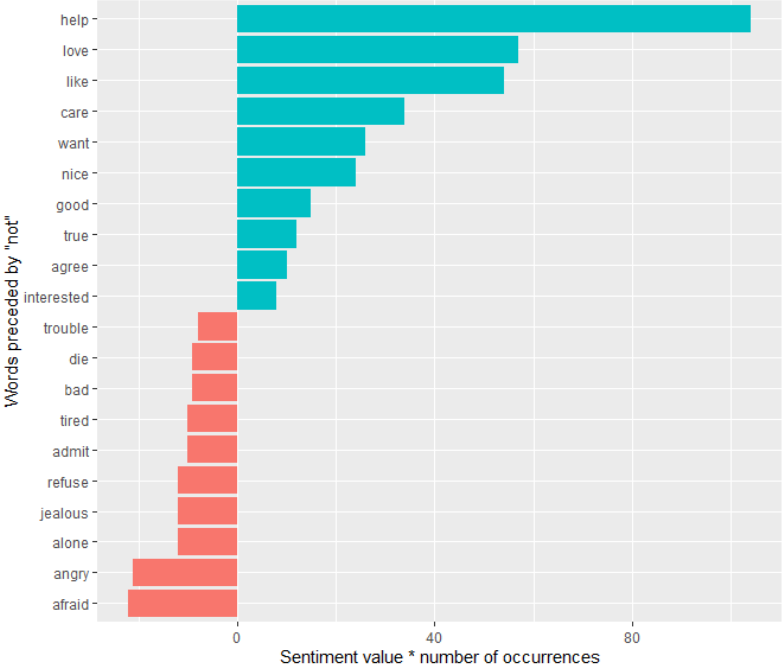
Words' Contribution to Sentiment in Anna Karenina

Using the NRC Lexicon



We can perform some text analysis counting, for example, the bigrams, negated words, etc. and then plotting them:

```
## # A tibble: 117,106 x 2
##   bigram      n
##   <chr>   <int>
## 1 <NA>    8786
## 2 of the  1801
## 3 in the  1533
## 4 he had   943
## 5 to the   939
## 6 he was   852
## 7 at the   836
## 8 and the  687
## 9 it was   639
## 10 on the  622
## # ... with 117,096 more rows
## # A tibble: 728 x 3
##   word1 word2      n
##   <chr> <chr>   <int>
## 1 not  to     201
## 2 not  a      110
## 3 not  be       95
## 4 not  know    78
## 5 not  the      67
## 6 not  in       66
## 7 not  help     52
```



```
## 8 not been 50
## 9 not have 46
## 10 not merely 45
## # ... with 718 more rows
```

These tibbles show the number of word-pairs, one of them being “lidia”-the first one . In the second we need to filter for at least relatively common words first. The third one describes the word’s correlation when we filter with the word :”countess”. And, finally, the first plot lets us pick particular interesting words and find the other words most associated with them and in the last one we use ggraph to visualize the correlations and clusters of words that were found by the widyr package.

```
## # A tibble: 1,428 x 3
##   item1 item2      n
##   <chr> <chr>   <dbl>
## 1 lidia ivanovna    73
## 2 lidia countess    65
## 3 lidia alexey     51
## 4 lidia alexandrovitch 48
## 5 lidia anna      16
## 6 lidia eyes      15
## 7 lidia smile     15
## 8 lidia time      14
## 9 lidia stepan    14
## 10 lidia arkadyevitch 14
## # ... with 1,418 more rows
## # A tibble: 1,429,220 x 3
##   item1   item2 correlation
##   <chr>   <chr>         <dbl>
## 1 petrovna lizaveta      1
## 2 lizaveta petrovna      1
## 3 arkadyevitch stepan    0.959
## 4 stepan   arkadyevitch    0.959
## 5 mihalovna agafea      0.939
## 6 agafea   mihalovna      0.939
## 7 ivanovitch sergey     0.937
## 8 sergey   ivanovitch     0.937
## 9 alexandrovna darya    0.923
## 10 darya    alexandrovna    0.923
## # ... with 1,429,210 more rows
## # A tibble: 1,195 x 3
##   item1   item2 correlation
##   <chr>   <chr>         <dbl>
## 1 countess lidia      0.599
## 2 countess ivanovna    0.572
## 3 countess nordston    0.390
```



```
## 4 countess landau      0.230
## 5 countess alexey      0.125
## 6 countess alexandrovitch 0.119
## 7 countess karenina    0.0952
## 8 countess son         0.0876
## 9 countess madame      0.0850
## 10 countess letter     0.0791
## # ... with 1,185 more rows
```

5. Conclusion

In today's environment where we're enduring from data overload, companies might have mountains of customer feedback collected. Yet for mere humans, it's still impossible to analyze it manually without any sort of error or bias. Sentiment analysis provides answers into what the most important issues are. Because sentiment analysis can be automated, decisions can be made based on a significant amount of data rather than plain intuition that isn't always right. Sentiment analysis is useful for quickly gaining insights using large volumes of text data.[5] In this paper we have tried to give a feeling of it, through a simple application example using R. But, as we mentioned above, there is a huge number of its applications described in numerous papers, books, etc.

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Efficiency of biological age in clinical in dentistry

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Abstract

The postnatal growth starts from birth and continues until adulthood. The maturity is reached when the process of growing has reached in to a point, in which it is possible to perform any action and function or to keep certain stability. This stability is described in relation with specific stages, like the stage of bone morphology on the hand wrist; secondary sexual features; tooth eruption, expressed in terms of skeletal and dental age; the growth age presents a more adequate indicator compared to chronological age; especially when the diagnosis of a patient with altered growth pace needs to be determined, together with the orthopedic and orthodontic treatment plan. The aim of this study is: 1. The assessment of dental and skeletal maturation, based on the panoramic view, hand wrist radiographs. 2. Evaluation of the relations between the real chronological age and biological one. Material and method: 160 patients of 7-15 years were selected for this study. All the patients had dental and skeletal abnormalities. Results: In 63% of cases, the biological age does not match the chronological age. Conclusions: From this study, assessment of the patient age through the hand wrists radiographs and assessment of dental age according to the permanent teeth calcification stages, is the most exact and safe method. The assessment of the skeletal age is the most relevant indicator in the orthodontic treatment of skeletal class II and class III clinical cases, as well as other skeletal abnormalities.

Keywords: Skeletal maturation , chronological age, hand wrists radiographs.

Introduction

In daily practice the successful treatment of dental and skeletal abnormalities depend on the time of intervention and the therapy that it is used. (1). Based on continuous ascertainment that contemporary literature stress intrigue the idea to go on forward if exist correlation between malformations and time (age) for orthodontic intervention. (2). Study of normal innovation that happened in face complex help the doctor to identify and diagnostic every existent abnormality, to secure optimal treatment for the patient. So is primary for the dentist to be aware how the face change, where happened those alteration and when. Those knowledge help to modify the process of growth. Doctors are interested for instantly results of treatment, for long time stability and benefits of treatment ,because the alterations in face and dents go on for all the life. The statute of development in a children do not evaluate from chronological age but from biological age. Exist 3 physiological ratings that define evolutive event of life, so biological circle of growth: periods of osseous morphology in hand wrist, dental age (form and eruption of teeth), secondary sexual symptom (secondary sexual characteristics. (3)(4). Because of individual visibility varieties that define somatic maturity in every chronological age, age of growth often present a measure more adapted of development in comparative with chronological age, notably when must benefit the diagnose of a patient with rotational pace of growth, but and in the treatment

plane of dental-facial correction or precautionary orthodontic. When evaluate the progress of children in compare of maturity, in general made a comparison between its periods with standards that we took from the featured champion in a population of the same age.(5)(6) In this plain used symptomatic standards of lengthy in orthostatic position, of weight, of bone development, of secondary sexual characteristics and dental evolution. In these manner it is possible to appreciate if the maturity of a children is early, average or slow in compare with his friends.(7) The practice and clinical experience of many foreign authors have shown that if before the treatment of abnormalities notably skeletal abnormalities do not respect the time of intervention, the result will fail or will lengthen the time of treatment.

The aim: The definition of biological age is very important to realize for every doctor that took care of children that are in growth and evolution. Knowledge of maturity period that a child has arrived, helped in consideration of his progress between expected evolutive events. This information is clinical very important because it helps medicinal team to appreciate patients with different kinds of short body, with endocrine pathologies or metabolic deceases. The useful of it consist in identification of syndromes and in lawful medicine. Many types of orthopedic treatment in general medicine need also precise consideration of patient maturity. The biggest success in orthodontic therapy is possible in time of bigger changes .This means that the period just a little before and during growth is considered advantage for different types of orthodontic treatment.(8) So in planification of orthodontic treatment, is difficult to predict if maturity has just started, is present or is completed. In this manner are arrived positive results in dento -facial deformation and put a plainly diagnostic ever since the start of treatment.

Material and method: Our study is made in a number of 160 patients from 7-15 aged, 90 girls and 70 boys near The University of Dental Medicine and in private clinics. (graf.1)

Graf .1. Male female report

All the patient were with dental and skeletal abnormalities. Those patient are treated with 3 periods: subjective examination, objective examination (extraoral and intraoral, functional analysis) and collateral analysis. In collateral analysis we used panoramic radiographs .to benefit dental age and hand wrists radiographs to benefit precise skeletal age Panoramic radiographs give information for growth and maturity of dental elements and bones, benefit number, position, dimension and form of crowns and roots. Also examination the teeth that are in growth. Hand wrist radiographs consist in definition of skeletal age, that used us to define potential of growth (fig1). (fig2).

Fig 1. Panoramic radiographs Fig 2. Hand wrists radiographs



The results: The information were deliver in average value and in standard ramp. The information were deliver in absolute value and in percentage. The analysis between 2 groups were tested with student test for two independent models. Hi square test used to show the differences between discrete information. Accident joins between variables were tested with the analysis of multinomial regressive (where dependent variable has more than two category) and with regression logistic crossbeam (where dependent variable is crossbeam). For every variable determine OD and interval of confidence (IC) 95 %.

Statistical analyses were realized with statistical packet SPSS 19.0. Were considered normal value $p < 0.05$. From 160 patients that we took in study 120 (75%) patients were with skeletal abnormalities and 40 (25%) patients were with dental abnormalities. (graf 2).

Graf.2.The separation of patients in number and % according to skeletal and dental abnormalities

The separation in % of patients with skeletal and dental abnormalities in according with accordance/discordance.

accordance	Skeletal anomaly (n=120) (%)	Dental anomaly (n=40) (%)	Tot n=160 (%)
discordance.	81 (67.5)	20 (50.0)	101 (63.1)
compliance	39 (32.5)	20 (50.0)	59 (36.9)

Tab.nr1 The separation in % of patients with skeletal and dental abnormalities in according with accordance/discordance.

Discussion: The discuss of results will bring in accordance with the aims: In model of 160 patients that are examine we value the view Ro and history, real dental age, skeletal and secondary sexual. The results that we took were in accordance with the studies of the authors that are taken with the same studies. From 160 patients that are taken in study 120 (75 %) patients were with skeletal abnormalities and 40 (25%) patients were with dental abnormalities. From statistic analyses were found a difference statistical important between discordance of chronological age with dental or skeletal age. 63.1% or 101 patients from 160 had discordance between chronological age and calculating age. Pearson test used to calculate the correlation and in all the tests $p < 0.5$. Chronological age and skeletal and dental age have shown important differences and in studies made by Cheraskin (1972), Malagola (1989), Jaeger (1990) and Carvahlo (1990). The results of different authors is from 36.6%-69.2%. (9)(10)(11) (12). From statistical analyses more discordance have between chronological age with skeletal age than between chronological age with dental age with a difference not important statistical ($p > 5$). Those results are confirmed and from other authors. So the definition of of skeletal age by hand bones is sure and can use and after ending of growth in different from dental age. Feminine patients have bigger difference between chronological age with biological age in compare with male patients $p < 0.05$. The value for female is (68%) and for male is (32%). So female have 2.6 time to have a n early biological age. The comparison between chronological age with skeletal age and dental age has a discordance 63.1%.the correlation test is used to do the comparison and correlation between maturity period of hand and dental one.

Conclusions

The best method to define the period of growth and development of a child is the definition of skeletal age with hand wrists radiographs and the define of dental age not by periods of eruption but by periods of calcification of permanent teeth. Although skeletal age is more used in comparison with dental age because it has not age limit. The opson of orthodontic treatment have individual define time in different patients. Not all the children must start the orthodontic treatment in 11 years but age now has 2 forcibly aims. Only chronological age bring up clinical errors giving lasting of a treatment not only for the doctor but also the patients. Depending on the level of skeletal age must define the kind of treatment orthodontic, orthopedic or chirurgical.

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The new approach towards legalization of the right to die - A comparative view

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Abstract

Regardless of peoples' efforts to include the right to die as one of their substantive rights as human beings, such efforts have always encountered strong opposition not only from policy makers, authorities, researchers, scholars, and even physicians, but also from the public. Even nowadays that the world is going through major social changes, the social environment remains still divided on what's morally good when discussing about euthanasia, whether in its active or passive form, or assisted suicide. For the majority of individuals, the protection of human life, at any cost, outweighs the right to die. However, recent developments in many countries indicate a shift from this idea towards a more holistic approach to the right to die *per se*. This article tends to shed light on the origins of the right to die, the first countries to introduce and recognize it, the new approaches and the latest legislative changes undertaken by many countries with regard to euthanasia, the new perspectives such change brings, as well as the questions raised with regards to other rights, which we as human still refuse to take in consideration. Through such a general overview of the applicability of right to die, one can understand the limits and extension of such right, as well as the main differences on the guarantees provided by different countries.

Keywords: *assisted suicide, euthanasia, human rights, right to die, self-determination.*

Introduction

The word 'Euthanasia' is derived from Greek, 'Eu' meaning 'good' and 'thanatos' meaning 'death', put together it means 'good death' (Kalaivani Annadurai, 2014). While it is not found as a word in old law dictionaries, such as p.ex. the Law Lexicon or Diary of Jurisprudence of 1848 (Wharton, 1848), or John Bouviers Law Dictionary, Sixth Edition of 1856 (Bouviers, 1856), it nevertheless became part of the legal dictionaries later on. According to the Essential Law Dictionary (Blackwell, 2008), 'euthanasia' is to be understood as mercy killing; painlessly killing someone who is suffering from a painful incurable disease or who is in a coma and has no hope of ever waking up and is applied in two forms: active and passive.

According to Black's Law Dictionary, 4-th edition revised in 1968, the meaning of 'death' was the cessation of life; the ceasing to exist; defined by physicians as

a total stoppage of the circulation of the blood, and a cessation of the animal and vital functions consequent thereon, such as respiration, pulsation, etc. Meanwhile, euthanasia was explained in the 7-th Edition (Garner, 1999), as: *'The act or practice of killing or bringing about the death of a person who suffers from an incurable disease or condition, esp. a painful one, for reasons of mercy . Euthanasia is sometimes regarded by the law as second-degree murder, manslaughter, or criminally negligent homicide'* and forms of euthanasia were active, passive, voluntary, involuntary and nonvoluntary euthanasia. However, in its 9-th Edition (Garner, 2009), Black's Law Dictionary gives a different approach to the concept of euthanasia. According to the definition provided in such Edition euthanasia was to be understood as: *'The act or practice of causing or hastening the death of a person who suffers from an incurable or terminal disease or condition, esp. a painful one, for reasons of mercy. ...'* The 9-th edition explains also the meaning of euthanasia according to Alexander Morgan Capron (Capron, 1983).

The 10 year difference from the explanation given on 'death' and 'euthanasia' in Black's Law Edition of 1999 to its edition of 2009, shows a slight shift on the wording used to describe them. With regard to 'death' it introduces the meaning of 'brain death' while the explanation of 'euthanasia' is no longer as harsh, mirroring the different approach of society towards it.

Turning to today, fast forward a further 10 years from the shift, the understanding of society with regard to death and the right to die has further developed, abating the difference between brain death and death from a cardiopulmonary perspective, between mercy killing as an 'act' and mercy killing as a 'human right'. While protection of human life has been and is still considered an important individual right which the state has a duty to guarantee it, the question is whether such right should be protected at all costs. We all agree on state's interests to protect human life (Steinberg, 1988), however such interests should be balanced against individual rights and freedoms.

The aim of this paper is not to explain the differences between different forms of euthanasia or assisted suicide, but the right to die as a fundamental human right and the latest approaches toward recognition of this right.

Ii. The approach of different countries on the right to die

A. The approach of European countries

In Europe, euthanasia is recognized by Belgium, The Netherlands and Luxemburg, also known as the Benelux countries. The first of these countries to legalize euthanasia was the Netherlands on 1 April 2002, where legislation regarding the practice of euthanasia and assisted suicide became effective. With the enactment of such law the Netherlands earned the distinction of becoming the first nation in the world to legalize euthanasia (Jochemsen, 2001). The decision of the Dutch Parliament came after many years of continuous efforts, by many doctors, that in particular cases euthanasia to be treated and considered as a way to ease the death of their patients, as well as the jurisprudence from the Dutch courts, Supreme Court included, to justify the need for euthanasia (Jochemsen, 2001). Even though euthanasia was legalized, specifics to the how, when, where, the age of the patient and its conditions, as well as the methods used were still considered important factors when deciding on the matter. It must also be noted that The Netherlands is quite '*avant garde*' when it comes to the right to die. It does recognize the right to die of minors above 12 and has recently pushed

for the recognition, with the parental consent, of such right even for children under 12. The decision of the Dutch Parliament was followed by the decision of the Belgium one on 28 May 2002. Organized action in favor of the legislation of euthanasia started in Belgium in the 1980s with the foundation of the *Association Belge pour le Droit de Mourir dans la Dignité* (Belgian Association for the Right to Die with Dignity) (1981) and its Flemish counterpart *Vereniging voor het recht op waardig sterven* (Association for the Right to Die with Dignity) (1983). The debate reached parliament some ten years later (Cohen-Almagor, 2009). The *euthanasia* commission of Belgium's upper house, set up to decide on the proposed changes to the legislation, voted in favor of the legislative changes in this regard on 20 January 2001. On February 13, 2014, through amendments to the existing law on euthanasia, Belgium legalized *euthanasia* by lethal injection even for children. According to the Belgium legislature, some children are perfectly capable to speak about their own death, even better than doctors (Sénat de Belgique, n.d.). The decision of the Netherlands and Belgium was followed in 2009 by the Luxemburg, legalizing both euthanasia, as well as assisted suicide. The law, which took effect on 1 April 2009, granted doctors legal immunity from 'penal sanctions' and civil lawsuits if they directly kill or assist the suicide of a patient with a 'grave and incurable condition,' who has repeatedly asked to die. However, the decision of the doctor must first be consulted with another physician in order to verify patient's condition. The decision for the enactment of the euthanasia law in Luxemburg came after much debate not only from the politicians, but also from the country's monarch, Grand-Duke Henry himself, who due to his Cristian convictions refused to sign the law. As a consequence, the country was faced with a constitutional crisis, as a result of which, with the agreement of the head of state and all members of Parliament, the Constitution was amended to this effect, requiring the Duke and his ministers to sign the laws in order for them to be made known and observed, and to do so within a compulsory period prescribed by the Constitution (Frieden, 2009).

While The Netherlands was the first to legalize euthanasia, Switzerland was the first country to recognize the right to assisted suicide. According to Article 115 of the Swiss Criminal Code: 'Every person who, for selfish reasons, incites or assists someone to commit suicide, shall be sentenced to imprisonment of up to five years or a fine.' The draft of the Criminal Code with the provision as stated was submitted to the Parliament in 1918, approved in 1937 (Andorno, 2013), and entered into force in 1942. Even though not explicitly expressed, such article is interpreted *a contrario*, meaning that assisted suicide is not considered an offence *per se* if not committed for selfish reasons. Furthermore, the Swiss law does not require the individual wanting to commit suicide to be of Swiss nationality. An important role on allowing assisted suicide in Switzerland was played by nonprofit organizations such as Exit, created in 1982 and Dignitas, created in 1998 (Andorno, 2013). However, their activity has often been put under scrutiny especially with regard to the phenomenon sometimes referred to as 'suicide tourism.' The interesting fact about Switzerland is that while it allows for assisted suicide, Article 115 of the Swiss Criminal Code prohibits all forms of euthanasia.

Meanwhile in France, on 22 April 2005, the **French** Parliament passed law 2005-370, also known as '*loi Léonetti*' which recognized the right of a doctor to end the suffering of a patient, in a terminal or advanced phase of the disease, through use of treatment that can have as a secondary effect the death of the patient (no.2005-370, n.d.). Furthermore, on February 2, 2016, the Parliament passed law no. 2016-87, known as

'loi Léonetti-Claeys', recognizing also patient's right to be put under continuous deep sedation in order to ease their suffering, until patient's death (no.2016-87, n.d.), thus the French law recognizing passive euthanasia.

On 25 September 2019 the Constitutional Court of **Italy** decided on the constitutionality of Article 580 of the Italian Criminal Code which considered assisted suicide a crime (242/2019, n.d.). According to the Court, the right to self-determination was guaranteed by Article 32 of the Italian Constitution, as well as law no. 219 of 2017 which recognized individual's right to refuse any kind of treatment, including treatment necessary for one's survival. During the incidental control (judicial review of law presented to the Constitutional Court by a court of ordinary jurisdiction) of Article 580 of the Italian Criminal Code, the Italian Constitutional Court held such article unconstitutional on the part that punished assisted suicide of people suffering from an irreversible form of pathology causing unbearable physical or psychological suffering, who were kept alive through life prolonging treatment or equipment but who, nevertheless, were conscious and able to decide freely.

Meanwhile, less than a year later, on 26 February 2020 the **German** Federal Constitutional Court also held as unconstitutional the provision of the German Criminal Code criminalizing commercial assisted suicide. According to the Court, the general right of personality encompasses a right to a self-determined death, which includes the freedom to take one's own life as well as the right to seek and use voluntarily offered help to do so. The Court stated that since suicide was not a punishable offence under criminal law, suicide assistance, too, was in principle exempt from punishment if the participant providing assistance in the suicide of a person acting on their own initiative is not responsible for the act (2BvR2347/15, n.d.).

On December 2020, regardless of country's strong religious background, the **Spanish** Parliament also voted in favor of active euthanasia. 198 lawmakers of the lower house of Parliament voted in favor of the euthanasia law, while 138 voted against and two abstained. The law has been sent to the Senate for consideration (715/000198/0001, n.d.).

On 11 December 2020, the **Austrian** Constitutional Court also held as unconstitutional the provisions of section 77 and 78 of the Austrian Criminal Code which criminalized killing on request and assistance to suicide. The applicants argued that an obligation of the State to prohibit assisted dying or an obligation of the individual to 'live and suffer' can be derived neither from Article 2 nor Article 8 of the European Convention of Human Rights, nor from any other fundamental right and that the individual's right to self-determination takes precedence over the State's duty of protection in any case. According to the Court, the criminal offence of killing on request is subject to less severe punishment than murder. The prohibition of participation in a person's suicide is addressed to third parties, but not to the person potentially willing to commit suicide. Furthermore, the Court noted that in cases of end of life care there should be consensus between medical science and the law that measures, which merely prolong the process of dying, correspond neither to the requirements of conscientious care nor to the principle of acting in the patient's best interest. [...] Measures that merely delay the occurrence of death are to be avoided or terminated. Relieving a dying person's suffering may take priority so that the physician is allowed to accept a resultant possible unavoidable shortening of the patient's life (G139/2019-71, n.d.).

On 29 January 2021 the **Portuguese** Parliament passed the law on doctor assisted suicide. Even though a country with the majority of the population of Catholic religious

background, where human life is inviolable according to its Constitution (Article 24), the Portuguese Parliament voted to legalize euthanasia with 136 votes in favor to 78 against and four abstentions (EuroNews, n.d.). Nonetheless, before signing the law, the President of the country referred the question of the constitutionality of the law to the Constitutional Court for review. The matter has still to be decided by this Court (EuroNews, n.d.). Many other European countries have different views and approaches with regard to euthanasia or assisted dying. Some countries, such p.ex. the United Kingdom, Albania, etc. ban any form of euthanasia or assisted suicide, while other countries such as Denmark, Norway, Sweden, etc. allow for some forms of them.

B. The approach of the United States of America

Meanwhile, in the United States of America, the first country to recognize the right to assisted dying was **Oregon** in November 1997 through a general ballot, which resulted in the enactment of Death with Dignity Act. Such act allows terminally ill individuals to obtain prescriptions from their physicians in order to end their lives through voluntary self-administration of a lethal dose of medication, expressly prescribed for that purpose (127.800s.1.01., n.d.).

Washington became the second state to pass a similar law on 4 November 2008, which went into force on 5 March 2009. It allowed terminally ill adults seeking to end their life to request lethal doses of medication from medical and osteopathic physicians. In order to be prescribed such medication, the patient must be a terminally ill Washington resident and have less than six months to live (Chapter70.245RCW, n.d.).

The third American country to recognize assisted suicide was **Montana** on 31 December 2009. Contrary to the other states, such right was recognized through a Supreme Court ruling in *Baxter v. Montana* case (Baxter v. State, 2009). According to the Supreme Court suicide was not a crime under Montana law, the act by the terminally ill patient of ingesting medication was not criminal, and no wording of the homicide statute indicated that killing 'oneself,' as opposed to 'another,' was a punishable offense. The court stated that The Montana Rights of the Terminally Ill Act did not indicate that physician aid in dying was against public policy (Baxter v. State, 2009).

On 20 May 2013 The Patient Choice and Control at End of Life Act, *also known as Act 39, was enacted by the General Assembly of Vermont, providing eligible Vermont residents with terminal diseases the option to be prescribed, by a Vermont-licensed physician, a dose of medication that, if taken, hastens the end of their life* (S.77(Act.39), n.d.). The Act does not specify what qualifies a person as a resident: it is up to the patient's physician to make that determination.

On 5 October 2015 **California's** Governor signed the End of Life Option Act, which went into effect on 9 June 2016. The act authorized that adults, who would meet certain qualifications and who were determined by their attending physician to be suffering from a terminal disease, to be prescribed drugs to end their life. The bill established the procedures for making the request, specified circumstances and forms to request an aid-in-dying drug, an interpreter declaration to be signed subject to penalty of perjury, thereby creating a crime and imposing a state-mandated local program, and a final attestation for an aid-in-dying drug (No.15, n.d.).

A similar Act was enacted by **Colorado** on 16 December 2016 through Proposition 106 'Access to Medical Aid in Dying,' which amended Colorado statutes to include the Colorado End-of-life Options Act at Article 48 of Title 25, C.R.S. (Colorado Revised

Statutes) (HB16-1054, n.d.). Such decision was followed by The **District of Columbia**, which on 19 **December 2016** signed the Death with Dignity Act into law. The Act went into effect on February 18, 2017 (21-182, n.d.). On 5 **April 2018 Hawaii** signed 'Our Care, Our Choice Act' which went into effect on 1 January 2019 (OCOCA, n.d.), followed by New Jersey on 12 April 2019, signing the Aid in Dying for the Terminally Ill Act (A1504, n.d.), as well as Maine on 12 June 2019, which signed the Death with Dignity Act (948), n.d.).

With regard to the above mentioned USA countries, it must be noted that they provide the right to assisted suicide through prescription of drugs or medicines that hasten death to terminally ill individuals. They do not recognize the active role of a doctor to end the life of their suffering patient.

C. The approach of other countries

In Canada, following the decision of the Supreme Court of Canada on *Carter v. Canada*, on 6 February 2015 the Parliament enacted Bill C-14, Canada's federal law on medical assisted dying. The Supreme Court held unconstitutional the provisions of Section 241(b) and s. 14 of the Criminal Code prohibiting assistance in dying. According to the Court, the prohibition on physician-assisted dying infringes the right to life, liberty and security of the person in a manner that is not in accordance with the principles of fundamental justice. The object of the prohibition is not, broadly, to preserve life whatever the circumstances, but more specifically to protect vulnerable persons from being induced to commit suicide at a time of weakness. Since a total ban on assisted suicide clearly helps achieve this object, individuals' rights are not deprived arbitrarily. However, the prohibition catches people outside the class of protected persons. It follows that the limitation on their rights is in at least some cases not connected to the objective and that the prohibition is thus overbroad. It is unnecessary to decide whether the prohibition also violates the principle against gross disproportionality (*Carter v. Canada* (Attorney General), 2015).

In Australia, voluntary assisted dying is legal in Victoria since 2017 with the enactment of Voluntary Assisted Dying Act 2017. Meanwhile, in 2019, Western Australia became the second state of Australia to pass Voluntary Assisted Dying Bill (No.139, n.d.).

In 2018, the Supreme Court of India decided on the case *Common Cause (A Regd. Society) v. Union of India*, which concerned a woman, Aruna Ramachandra Shanbaug, in persistent vegetative state. Her case had previously decided by the Court in 2015, which allowed for passive euthanasia of individuals in persistent vegetative state. In its 2015 decision on the case, the Court held that Article 21 of the Indian Constitution did not provide for a 'right to die' and that the right to life includes the right to live with human dignity but in the case of a dying person who is terminally ill or in permanent vegetative state, he may be allowed a premature extinction of his life and it would not amount to a crime. In its 2018 case, the Court, while taking into account the dangers accompanying passive euthanasia unscrupulous persons who wish to inherit the property of someone may not get him eliminated by some crooked method), held unconstitutional the provisions of Section 309 of the Indian Penal Code. The Court took also into account the fast advancements in medical science and noted that doctors must not declare a patient to be a hopeless case unless there appears to be no reasonable possibility of any improvement by some newly discovered medical method in the near future (*Common Cause (A Regd. Society) v. Union of India*, 2018).

Meanwhile in **New Zealand**, the question whether or not to pass the End of Life Choice Act legalizing euthanasia was put to a general referendum at the 2020 general elections (269-3, n.d.). The Bill, which was assented on 16 November 2019 recognized the right to assisted dying of competent terminally ill individuals, in an advanced state of irreversible decline in physical capability, experiencing unbearable suffering that cannot be relieved in a manner that the person considers tolerable. However, assisted dying remains illegal until the Act comes into force on 7 November 2021.

The approach of the European Court of Human Rights

The European Court of Human Rights (ECtHR) has had the opportunity to decide several times on an individual's right to die. While it did not consider important the protection of human life from the moment of its creation, arguing that an unborn child is not a 'person' within the meaning of the European Convention on Human Rights,¹ it held nevertheless important to protect life at any cost, even in cases of terminally ill people, unable to commit suicide themselves. While the ECtHR had previously decided on several right to die cases presented to it, the very first case where the Court discussed on the merits of the case was *Pretty v. The United Kingdom* (*Pretty v. the United Kingdom*, 2002). Since the applicant, Mrs. Pretty, was unable to commit suicide herself, due to her illness, she requested the English authorities not to prosecute her husband if he helped her commit suicide. Her request was denied by the authorities of the United Kingdom, while the ECtHR held that the right to life could not, without a distortion of language, be interpreted as conferring the diametrically opposite right, namely a right to die.

In *Haas v. Switzerland* (*Haas v. Switzerland*, 2011), the applicant complained of not being able to obtain a lethal substance without a prescription, in order to end his life without pain and with no risk of failure. The ECtHR held that there had been no violation of Article 8 of the European Convention on Human Rights, stating that although assistance in suicide had been decriminalized in certain member States, the vast majority of them appeared to attach more weight to the protection of the individual's life than to his right to end it. The Court thus concluded that States had a wide margin of appreciation in such matters.

In *Koch v Germany* (*Koch v Germany*, 2012), the applicant complained of the failure of the German authorities to allow his wife to obtain a lethal dose of a drug that would have enabled her to commit suicide at home in Germany, which resulted in her being assisted to successfully commit suicide in Switzerland. The ECtHR relied again on the lack of consensus among member states on the matter.

However, in *Gross v. Switzerland [GC]* (*Gross v. Switzerland [GC]*, 2014), the ECtHR held a different approach with regard to the right to die. The case concerned a woman who was not suffering from a terminal illness, but who however complained of not being able to obtain prescription for a lethal dose of a drug enabling her to commit suicide herself. When the case was first decided in a chamber judgment of the ECtHR on 14 May 2013, the Court held that there had been a violation of applicant's right to private life based on the fact that the Swiss law was not clear as to when assisted suicide was permitted. However, after the case was referred to the Grand Chamber

¹ When deciding on the right to life, the ECtHR referred to the French wording of the Convention "toute personne". In *Vo v. France* App no 53924/00 (ECtHR, 8 July 2004), § 77, the Court held that the general usage of the term "everyone" ("toute personne") and the context in which it was used in Article 2 of the Convention did not include the unborn.

by the Swiss government, the ECtHR held that, even though the applicant had died, she had abused her right to the Court as she had mislead both her lawyer and the ECtHR, by withholding information related to her death.

Conclusions

When confronted with death we are all equal. In principle everyone can choose when, where or how to die whenever they want. Whoever such decision becomes very difficult or impossible for people in palliative care, unable to commit suicide themselves even though they are going through immense pain and suffering.

In recent years, many countries all over the world have shifted from the duty of the state to protect human life at any cost, to a different approach which recognizes, under specific circumstances, the right of an individual to decide how, when or where to end his/her own life.

Even though the new approach is of significant importance for the protection of individual's rights and freedoms, it could have come sooner. As history has shown, in several cases, the right to die was violated by the authorities of many countries.

In particular in Europe, the approach of the ECtHR has influenced the late recognition of the right to die. Considering its important role on the protection of individual's fundamental rights and freedoms, since early on, the ECtHR should have taken positive steps in this regard, similarly to the positive steps taken by this Court to protect those individual rights which were once considered taboo as p.ex. the right of same sex couples to marry (*Orlandi and others v. Italy*, 2017).

However, many questions still need answering: Why now? What changed? Has society become more aware to the expansion of rights and freedoms? Taking into consideration the new approach of the countries with regard to the right to die, should we be open minded about other rights which we still prefer not to discuss about such as p.ex. cloning, resurrection, etc.? Within the right to a family life, we as a society have come to accept gene editing in specific circumstances. We have also accepted cloning of animals as a way of protecting endangered species. Is it perhaps time to start considering other rights too?

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On strictly 2-Convex Linear 2 – Normed Spaces II

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Abstract

C.R.Diminnie, S.Gähler and A.White introduced initially the concept of strict 2 – convexity for linear 2 – normed spaces, which is a natural generalization of the strict convexity for linear 2 – normed spaces. In 2019, we introduced an equivalent characterization of strict 2 – convexity in linear 2 – normed spaces, in terms of duality mappings of type A" as related to linear 2 – normed spaces. In this paper, we will give some results, which is another equivalent characterization of strict 2 – convexity in linear 2 – normed spaces, in terms of duality mappings

of type $\left(B'' \right)$ as related to linear 2 – normed spaces.

Keywords: Linear 2-normed space, strict 2 – convexity, duality mapping.

Introduction

1.1. Linear 2 – normed spaces are special class of 2 – metric spaces. They are linear spaces and have defined on them a real valued function, named 2 – norm. The concept of linear 2 – normed spaces was introduced and studied by Siegfried Gähler, a German mathematician, in a series of paper in the mid of 1960's. This notion, which is nothing but a two dimensional analogue of a normed space, got the attention of a wider audience after the publication of a paper by Albert George White Jr. in 1969, entitled 2 – Banach spaces. Since 1965, S.Gähler, A.White, E.Z.Andalafte, Y.J.Cho, C.R.Diminnie, R.E.Ehret, R.W.Freese, K.Iséki, C.S.Lin, G.Murphy and many others have developed extensively the geometric structure of vector 2 – normed spaces. A number of articles devoted to 2 – normed spaces have been published.

Definition 1.1.1.[1]

Let X be a real linear space with $\dim(X) > 1$ and let $\| \cdot, \cdot \|$ be a real – valued function on $X \times X$ satisfying the following conditions:

(2N1) $\|x, y\| = 0$ if and only if x and y are linearly dependent,

(2N2) $\|x, y\| = \|y, x\|, x, y \in X,$

$$(2N3) \quad \|\alpha x, y\| = |\alpha| \|x, y\|, \quad x, y \in X \text{ and } \alpha \in \mathbb{R},$$

$$(2N4) \quad \|x + y, z\| \leq \|x, z\| + \|y, z\|, \quad x, y, z \in X.$$

The function $\|\cdot, \cdot\|$ is called a 2 – norm on X and the pair $(X, \|\cdot, \cdot\|)$ is called a linear 2 – normed space (or in short a 2 – normed space).

Some of the basic properties of the 2 – norms are that they are non – negative and

$$\|x, y + \alpha x\| = \|x, y\|, \text{ for every } x, y \text{ in } X \text{ and every real } \alpha. [2]$$

Example 1.1.1.[3]

A trivial example of a linear 2 – normed space is $\mathbb{R}^2$ equipped with the following 2 – norm:

$$\|x, y\| = \text{abs} \begin{vmatrix} x_1 & x_2 \\ y_1 & y_2 \end{vmatrix}, \quad x = (x_1, x_2) \text{ and } y = (y_1, y_2).$$

Geometrically,

this 2 – norm can be interpreted as the area of the parallelogram spanned by x and y .

1.2. The concept of strict 2 – convexity for linear 2 – normed spaces is a natural generalization of the strict convexity for linear 2 – normed spaces. Let X be a linear space. For non – zero vectors x, y in X , let $V(x, y)$ denote the subspace of X , generated by x and y .

Definition 1.2.1.[4]

The linear 2 – normed space $(X, \|\cdot, \cdot\|)$ is said to be strictly convex if

$$\|x + y, z\| = \|x, z\| + \|y, z\| \text{ and } z \notin V(x, y), \text{ where } x, y, z \in X, \text{ imply that } y = \alpha x, \text{ for some } \alpha > 0.$$

Definition 1.2.1.[5]

The linear 2 – normed space $(X, \|\cdot, \cdot\|)$ is said to be strictly 2 – convex if

$$\frac{1}{3} \|x + z, y + z\| =$$

$$\|x, y\| = \|y, z\| = \|z, x\| = 1, \text{ where } x, y, z \in X, \text{ implies } z = x + y.$$

It is easy to see that every strictly convex linear 2 – normed space is always strictly 2 – convex, but the converse is not necessarily true[5] and that every linear 2 – normed space of dimension 2 is strictly convex.

1.3. Motivated by the concepts of bounded linear functionals and duality mappings on normed spaces, bounded linear 2 – functionals on 2 – normed spaces were introduced by White[6] and associated duality mappings were defined in [7] .

Definition 1.3.1.[6]

Let $(X, \|\cdot, \cdot\|)$ be a linear 2-normed space and A, C two linear subspaces of X .

A bounded linear 2-functional is a mapping $F : A \times C \rightarrow \mathbb{R}$, such that:

$$(i) \quad F(x+y, z+w) = F(x, z) + F(x, w) + F(y, z) + F(y, w),$$

$$(x, y) \in A^2$$

$$\text{and } (z, w) \in C^2,$$

$$(ii) \quad F(\alpha x, \beta y) = \alpha \beta F(x, y), \quad \alpha, \beta \in \mathbb{R} \text{ and } (x, y) \in A \times C,$$

(iii)

There exists a number $K > 0$, such that $|F(x, y)| \leq K \|x, y\|$, for all $(x, y) \in A \times C$.

Definition 1.3.2.[6]

If F is a bounded linear 2-functional, define the norm of F , $\|F\|$, by:

$$\|F\| = \inf \{ K \geq 0 \mid |F(x, y)| \leq K \|x, y\|, \text{ for all}$$

$$(x, y) \in A \times C \}.$$

Theorem 1.3.1.[7]

Then the following statements are equivalents:

(i) $(X, \|\cdot, \cdot\|)$ is strictly 2-convex.

(ii) If $\|x, y\| = \|y, z\| = \|z, x\| = 1$ and F is a non-zero bounded linear 2-functional

on $V(a, b, c) \times V(a, b, c)$, satisfying $F(x, y) = F(y, z) = F(z, x) = \|F\|$, then $z = x + y$.

Definition 1.3.3.[8]

Let $(X, \|\cdot, \cdot\|)$ be a linear 2-normed space and let $X_{a, b, c}^*$ be the space of all bounded

linear 2-functionals on $V(a, b, c) \times V(a, b, c)$, for every a, b, c in X .

The mapping $I : V(a, b, c) \times V(a, b, c) \rightarrow 2^{X_{a, b, c}^*}$

defined as follows :

is
$$I(x, y) = \left\{ F \in X^*_{a,b,c} / F(x, y) = \|F\| \|x, y\| \right\}, x, y \in V(a, b, c).$$

called a duality mapping of type (A'') .

Definition 1.3.4.[8]

Let $(X, \| \cdot, \cdot \|)$ be a linear 2 – normed space and let $X^*_{a,b,c}$ be the space of all bounded linear 2 – functionals on $V(a, b, c) \times V(a, b, c)$, for every a, b, c in X . Let Φ be a semi – positive function, that is, a mapping from R^+ into R^+ such that $\Phi(\lambda) = 0$ if and only if $\Phi(\lambda) = 0$.

The mapping $J_\Phi : V(a, b, c) \times V(a, b, c) \rightarrow 2^{X^*_{a,b,c}}$ defined as follows:

$$J_\Phi(x, y) = \left\{ F \in X^*_{a,b,c} / F(x, y) = \|F\| \|x, y\|, \|F\| = \Phi(\|x, y\|) \right\},$$

$$x, y \in V(a, b, c),$$

is called a duality mapping of type (B'') .

It is easy to see that if Φ is a semi – positive function, then $J_\Phi(x, y) \subset I(x, y)$, $x, y \in V(a, b, c)$.

Some characterizations of strictly 2 – convex linear 2 – normed spaces, in terms of duality mappings, are given in [7], [8] and [9].

Theorem 1.3.2.[9]

Let $(X, \| \cdot, \cdot \|)$ be a linear 2 – normed space and $a, b, c \in X$.

Suppose that $I : V(a, b, c) \times V(a, b, c) \rightarrow 2^{X^*_{a,b,c}}$

is a duality mapping of type (A'') .

Then the following statements are equivalents:

(i) $(X, \|\cdot, \cdot, \cdot\|)$ is strictly 2 – convex.

(ii) $I(x, y) \cap I(y, z) \cap I(z, x) \neq \emptyset$ implies $z = \alpha x + \beta y$ for $\alpha = \frac{\|y, z\|}{\|x, y\|}$ and $\beta = \frac{\|x, z\|}{\|x, y\|}$.

In 2019, we introduced an equivalent characterization of strict 2 – convexity in linear

2 – normed spaces, in terms of duality mappings of type (A'') as related to linear 2 – normed spaces.

Theorem 1.3.3.[10]

Let $(X, \|\cdot, \cdot, \cdot\|)$ be a linear 2 – normed space and $a, b, c \in X$.

Suppose that $I : V(a, b, c) \times V(a, b, c) \rightarrow 2^{X^*_{a, b, c}}$ is a duality mapping of type (A'') .

Then the following statements are equivalents:

(i) $(X, \|\cdot, \cdot, \cdot\|)$ is strictly 2 – convex.

(ii) $I(x, y) \cap I(y, z) \cap I(z, x) \neq \emptyset, \|z, x\| \|y, z\| \neq 0$ and $\|x, y\| = \|y, z\|$,

where $x, y, z \in V(a, b, c)$, imply that $z = x + \beta y$, for some $\beta > 0$.

2. Main result.

In this section, we will give some elementary characterizations of strict 2 – convexity

in linear 2 – normed spaces, in terms of duality mappings of type (B'') as related to linear 2 – normed spaces.

Theorem 2.1.

Let $(X, \|\cdot, \cdot, \cdot\|)$ be a linear 2 – normed space and $a, b, c \in X$. Let Φ be a onto semi – positive

function. Suppose that $J_\Phi : V(a, b, c) \times V(a, b, c) \rightarrow 2^{X^*_{a, b, c}}$ is a duality mapping of type

(B'') . Then the following statements are equivalents:

(i) $(X, \|\cdot, \cdot\|)$ is strictly 2 – convex.

(ii) $J_{\Phi}(x, y) \cap J_{\Phi}(y, z) \cap J_{\Phi}(z, x) \neq \emptyset$, where $x, y, z \in V(a, b, c)$,

implies $z = \alpha x + \beta y$ for $\alpha = \frac{\|y, z\|}{\|x, y\|}$ and $\beta = \frac{\|x, z\|}{\|x, y\|}$.

Proof.

(1) **P** (2)

Assume that the condition (1) holds.

Let $J_{\Phi}(x, y) \cap J_{\Phi}(y, z) \cap J_{\Phi}(z, x) \neq \emptyset$,

where $x, y, z \in V(a, b, c)$.

Then, since $J_{\Phi}(x, z) \subset I(x, z)$, $J_{\Phi}(y, z) \subset I(y, z)$ and

$J_{\Phi}(z, x) \subset I(z, x)$, we have:

$$I(x, y) \cap I(y, z) \cap I(z, x) \neq \emptyset.$$

Therefore, by theorem 1.3.2., $z = \alpha x + \beta y$ for $\alpha = \frac{\|y, z\|}{\|x, y\|}$ and $\beta = \frac{\|x, z\|}{\|x, y\|}$, and condition (2) is satisfied.

(2) **P** (1)

Assume that the condition (2) holds.

Let $0 \neq F \in X^*_{a, b, c}$ and $x, y, z \in V(a, b, c)$, such that:

$$F(x, y) = F(y, z) = F(z, x) = \|F\| \text{ and } \|x, y\| = \|y, z\| = \|z, x\| = 1.$$

Since Φ is a onto semi – positive function, there exist a number $k > 0$, such that

$$\Phi(k^2) = \|F\|.$$

Hence we have:

$$F(kx, ky) = k^2 F(x, y) = k^2 \|F\| = k^2 \|x, y\| \cdot \|F\| = \|F\| \cdot \|kx, ky\|,$$

$$F(ky, kz) = k^2 F(y, z) = k^2 \|F\| = k^2 \|y, z\| \cdot \|F\| \equiv \|F\| \cdot \|ky, kz\|,$$

$$F(kz, kx) = k^2 F(z, x) = k^2 \|F\| = k^2 \|z, x\| \cdot \|F\| \equiv \|F\| \cdot \|kz, kx\|,$$

and

$$\Phi(\|kx, ky\|) = \Phi(k^2 \|x, y\|) = \Phi(k^2) \|F\|,$$

$$\Phi(\|ky, kz\|) = \Phi(k^2 \|y, z\|) = \Phi(k^2) \|F\|,$$

$$\Phi(\|kz, kx\|) = \Phi(k^2 \|z, x\|) = \Phi(k^2) \|F\|.$$

Since J_Φ is called a duality mapping of type (B'') , by definition 1.3.4., we have:

$$F \in J_\Phi(kx, ky) \cap J_\Phi(ky, kz) \cap J_\Phi(kz, kx),$$

that is $J_\Phi(kx, ky) \cap J_\Phi(ky, kz) \cap J_\Phi(kz, kx) \neq \emptyset$.

Hence, by assumption, since $kx, ky, kz \in V(a, b, c)$

and $\|kx, ky\| \cdot \|ky, kz\| \cdot \|kz, kx\| \neq 0$,

it follows that:

$$kz = \alpha(kx) + \beta(ky), \text{ where } \alpha = \frac{\|ky, kz\|}{\|kx, ky\|} \text{ and } \beta = \frac{\|kx, kz\|}{\|kx, ky\|}.$$

On the other hand, we can write:

$$\alpha = \frac{\|ky, kz\|}{\|kx, ky\|} = \frac{k^2 \|y, z\|}{k^2 \|x, y\|} = \frac{\|y, z\|}{\|x, y\|} = 1 \text{ and } \beta = \frac{\|kz, kx\|}{\|kx, ky\|} = \frac{k^2 \|z, x\|}{k^2 \|x, y\|} = \frac{\|z, x\|}{\|x, y\|} = 1,$$

which, we take that $z = x + y$.

By theorem 1.3.1, $(X, \|\cdot, \cdot\|)$ is strictly 2 – convex and condition (1) is satisfied.

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Evaluation of D-Dimer values related to Covid-19 and its manifestation in Albanian patients

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Abstract: D-dimer is a fibrin degradation product, often used to measure and assess the formation of clots. The liver produces several important proteins involved in the coagulation process, one of which includes fibrinogen. The presence of D-dimer in the blood plasma is often used as a clinical biomarker to determine thrombotic activity and diagnose diseases such as pulmonary embolism (PE), deep vein thrombosis (DVT), macrovascular complications that may indicate diabetes disease progression. Coronavirus disease 2019 (COVID-19) is a recent-described infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first detected in late 2019 in the province of Hubei, China. Since late 2019, COVID-19 has spread rapidly across the world and has imposed the approval of measures of social distancing, quarantine, and isolation.

Aim: The purpose of this study is to identify and evaluate the values of D-dimer in patients confirmed positive with COVID-19, the importance of the D-dimer test, ways of treatment and management of the risks presented.

Method: Concerning the information about the cases of different patients in the world with the problems displayed by COVID-19, data from studies and databases of different countries published and related to the topic were used, from which we selected the ones that were most interest and more in line with the objectives regarding the identification and evaluation of D-dimer values in confirmed COVID-19-positive patients. The results obtained from 2 laboratories in the city of Tirana, were based on the review of all cases and patient records that had performed testing on D-dimer levels, as well as the identification of all its values over the following periods.

Results: The results obtained from two medical laboratories about D-dimer levels in patients during the periods, respectively Intermedica- February 2020 and BIO Best Albania-October 2020 - February 2021, are only an indicative overview and do not provide detailed information about the accompanying problems of patients compared to other international studies. Meanwhile, in other studies, D-dimer levels correlate with inflammatory markers which tend to normalize in the convalescent phase of most patients. High levels, on the other hand, do not necessarily indicate COVID-19 exposure, due to other reasons including: pregnancies, cardiovascular problems, or surgical interventions. Levels $<250 \text{ ng / ml}$ or $<0.4 \text{ mcg / ml}$ are taken as reference. This is presented as a very important and often measured element in patients with COVID-19, whose levels correlate with severity and are reliable prognostic markers that determine mortality in hospitalized patients.

Conclusions: The main concomitant diseases such as hypertension, diabetes mellitus, dyslipidemia, obesity and family history with cardiovascular problems are the key points of occurrence of severe COVID-19 problems, while on the other hand, pregnancy is a hypercoagulable condition with significant physiological increase of D-dimer levels, except COVID-19 and thromboembolism that may develop. Usage of anticoagulant therapies with LMWH, antiviral therapies, anti IL-6, antibiotics, etc., have been some of the first lines in the treatment of patients with high levels of D-dimer affecting the immediate improvement of symptoms.

Keywords: D-dimer, COVID-19, coagulation, pulmonary embolism, deep vein thrombosis, cerebral ischemia.

Introduction

In December 2019, severe acute respiratory syndrome, coronavirus 2 (SARS CoV-2) known today as COVID-19, was first reported in Wuhan city in China. In a very short time, its spread was achieved almost all over the world and since February 22, 2020, more than 183 million cases have been confirmed by the WHO, in about 219 countries of the world causing more than 3.95 million fatal cases. In December 2019, the first 4 cases identified by the hospitals of this country, which used a surveillance mechanism for “pneumonia of unknown etiology” were seen to be all related to exposure to seafood where many species were sold. of live animals in Hunan, Southern China (*Li. Q et.al., 2020*). The surveillance mechanism used was established after the outbreak of severe SARS relapsing syndrome in 2003, with the aim of timely identification of new pathogens. Severe pneumonia caused by COVID-19 and severe bacterial pneumonia are both associated with activation of the blood coagulation system, partial increase in tissue thromboplastin time (aPTT), prothrombin (PT), and D-dimer levels. Evidence of disseminated vascular coagulation is often seen in patients at high risk of death from COVID-9. Severe pneumonia caused by COVID-19 presents pathological similarities with bacterial pneumonia and sepsis, through disturbance of hemostatic balance, resulting in a procoagulant condition concentrated in the lungs or systematically diffuse (*Iba. T et.al., 2020*). There are many evidences that illustrate how SARS-COV 2 causes cytokine storms through the growth of pro-inflammatory cytokines. The development of microthrombi in the capillaries of the lungs, partly explains the hypoxia manifested in some patients and other similar microthrombi as well as renal and cardiovascular involvement. COVID-19 pneumonia is also associated with increased cytokines, TNF, and IL-6, all of these potent tissue factor-dependent (TF) coagulation cascade activators (*McFadyen. J et.al., 2020*). D-Dimer levels, identified in patients examined by two laboratories (Intermedica February 2021-February 2021 and BIO BEST Albania October 2020- February 2021) showed a small reflection of rapid onset and immediate increase in levels within a short period giving in some cases fatal consequences, in those with or without severe COVID-19.

Materials and methods

1.1 Sources

According to our study, we have gathered information about the cases of different patients in the world with the problems displayed by COVID-19 from 2013 until 2020, data from studies and databases of different countries published and related to the topic are provided from published materials and articles including: a) Our World in Data (OWD), information about worldwide cases and deaths; b) National Center of Biotechnology Information (NCBI), providing information on concomitant diseases; c) Google Scholar, researches about poor prognosis and influencing factors about high D-dimer levels on patients with COVID-19; d) Wiley Online Library for supplementary materials about coagulopathy in COVID-19; e) European Centre for

Disease Prevention and control (ECDC) about COVID-19 situation updates; f) COVID Observer for daily speed of growth cases of COVID-19. We also examined D-dimer levels on 2 different laboratories in the city of Tirana and gathered information about the lowest and highest peak level of D-dimer different periods from 2020- 2021. During this period, in the laboratory Intermedica, a total of 32 patients took the test in February 2020 and a total of 1796 patients took the test of D-dimer levels in February 2021. As for the BIO Best Albania laboratory, the number of patients in total from October 2020 until February 2021 was 537, having also cases of retesting due to immediate changes in the condition of patients.

There were no language restrictions and the reference list of the studies identified was checked in order to identify new and additional studies.

2.2 Cases involved

1. Pulmonary embolism and diabetes mellitus in patients confirmed positive with COVID-19. Diabetic ketoacidosis (DKA) has been observed in patients without known diabetes mellitus weeks to months after resolution of COVID-19 symptoms. It is not yet known how long the increased severity of pre-existing diabetes or predisposition to DKA persists after infection, and this will be addressed by the international CoviDiab registry. Pre-existing diabetes may first become apparent during the acute phase of COVID-19 and can generally be treated long term with agents other than insulin, even if initially associated with DKA (Nalbandian. A *et.al.*, 2021). There is no concrete evidence of lasting damage to pancreatic β cells. As for pulmonary embolism, all phases of diffuse alveolar damage have been reported in COVID-19 autopsy series, with organizing and focal fibro-proliferative diffuse alveolar damage seen later in the disease course, consistent with other etiologies of ARDS.

2. Test results from INTERMEDICA clinic, Tirana, February 2020 – February 2021. In February 2020, 53% of patients were males, 47% females and 31.25% were COVID-19 positive suspected. As for February 2021, 49.1% were females, 50.9 % males, starting from the age 5 to 89 years old.

D-dimer levels obtained from BIO-Best Albania clinic, Tirana, from October 2020 until February 2021. The highest D-dimer level obtained from the study was 8567 ng/mL (or 0.8% of patients that took the test). The study included patients starting at the age of 18, patients with chest pain, worsening dyspnea, syncope, hemodynamic instability.

What we know so far

Since February 2020, for a short period of time, more than 2,1 million cases are confirmed and the number of deaths surpasses 4,5 million. The novel coronavirus, also called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has been responsible for millions of deaths and infections all around the world. One of the most often symptoms of a post COVID-19 infection is smell dysfunction and anosmia (loss of smell) (Mayo Clinic Health System, *n.d*). Although the precise cause of the smell dysfunction is unclear, the most likely damage is the cells that support and help the olfactory neurons, known as sustentacular cells. These cells can regenerate from stem cells, which may explain why smell and taste heals in most cases quickly (World Health Organization, 2021). Another problem is the sense of a smell that doesn't exist, such as the smell of smoke or rotten meat. New variants have shown other symptoms

such as diarrhea, nausea and vomiting, fever, dry cough, shortness of breath etc. At the present time, the names of different variants recommended are by using letters of the Greek Alphabet, which are more practical and easier for scientists and audience (World Health Organization, 2021). In December 2020, from WHO has reported a new variant of coronavirus, more powerful than the others before, more contagious and since then many variants have been identified and many of them are also under investigation. Since the fact that when a virus is widely circulating in a population causes many infections, the likelihood of the virus mutating increases (Funk. Tet.al., 2021). Depending on where the changes are located in the virus's genetic material, changes may be present on a virus's properties, such as transmission (more or less easily spread) or even severity (cause more or less severe diseases).

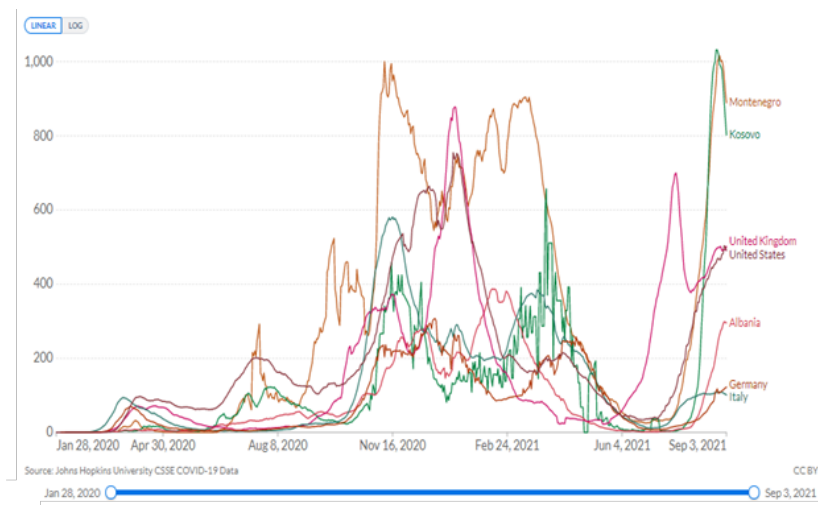


Figure 1. Daily new confirmed COVID-19 cases per million people

Four of the most known variants of coronavirus, based on a significant impact of transmissibility, severity and immunity on the epidemiological situation in the EU/EAA are Alpha, Beta, Gamma and Delta. Other variants of interest are Eta (B.1.525), Theta (P.3), Kappa (B.1.617.1), B.1.620, B.1.621, Lambda (C.37) and variants under monitoring for the problems that have caused in some countries are: B.1617.3; B.1.214.2; A.23.1; A.27, A.28; C.16, B.1.351+ P384L; B.1.351+E516Q; B.1.1.7+L452R; B.1.617.2' ZETA (P.2); LOTA (B.1.526) etc. Since the end of August 2021, WHO has added another coronavirus variant called Mu (B.1.621), one of the variants of interests. This is a variant that may present a major threat to public health due to the genetic changes and higher transmission potential. It remains unknown whether it has spread in other countries except Colombia (where it was first discovered), transmission and health problems that may cause. Even though Mu has a mutation (P681H) first reported in the alpha variant, R346K and Y144T, is not proven yet the possible consequences, hence it needs further analysis (World Health Organization, 2021).

According to the WHO, since 3 January 2020 until 3 September 2021 the number of confirmed cases of COVID-19 in Albania is 148,222 with a total of 2,505 deaths (Covid

Observer, 2021).

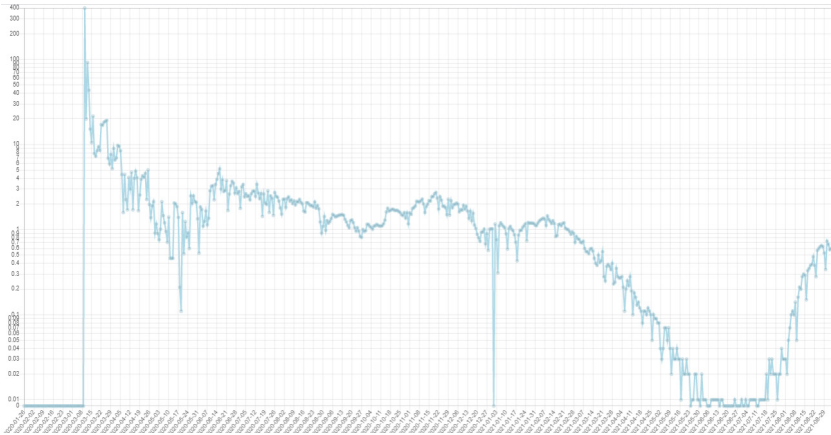


Figure 2. The speed of growth (in %) over time in Albania. The only parameter here is the number of confirmed cases. As for Albania, since September 01, as a result of the rapid increase in the number of new cases of SARS-COV-2 virus infections, daily curfew started from 23:00 pm to 6:00 am. This came as a result of the confirmation by the Institute of Public Health in Albania on the identification of 22 new cases with the Delta Variant of Coronavirus, spread in 10 cities where the highest number of cases is in Tirana (*Institute of Public Health Albania, 2021*).



Figure 3. The number of new confirmed cases for the last 7 days per 100,000 of population in Albania.

3. Results

3.1 Retrospective study conducted on 2558 patients hospitalized at the University Hospital of Bellvitge, Barcelona, Spain during the period 01.03.2020 - 24.04.2020 (*Cerda. P et.al., 2020*)

Rare areas of myofibroblast proliferation, mural fibrosis and microcystic honeycombing have also been noted. This fibrotic state may be provoked by cytokines such as interleukin-6 (IL-6) and transforming growth factor- β , which have been implicated in the development of pulmonary fibrosis and may predispose to bacterial

colonization and subsequent infection. Pulmonary vascular microthrombosis and macrothrombosis have been observed in 20–30% of patients with COVID-19, which is higher than in other critically ill patient populations (1–10%). Average age was 65.6 ± 13.0 years; 67.3% male, (95% confidence interval found 59.5 - 75.5%). Pulmonary embolism was identified in 44 patients (27.2%), including 29 (42.6%) of 68 in intensive care. Second week D-dimer with PE* $2010.7 \mu\text{g} / \text{L}$ and without PE = $626.0 \mu\text{g} / \text{ml}$. Third week: $3893.1 \mu\text{g} / \text{mL}$ patients with PE and $1184.4 \mu\text{g} / \text{mL}$ patients without PE. Fourth week: $2736.3 \mu\text{g} / \text{L}$ patients with PE and $1129.1 \mu\text{g} / \text{L}$ patients without PE.

3.2 Transverse study performed on 98 patients with moderate to severe diabetes mellitus of COVID-19 during the period 12 July 2020 - 31 August 2020 (Mishra.Y et.al., 2020)

Some surveys have shown ACE2 and transmembrane serine protease (TMPRSS2; the protease involved in SARS-CoV-2 cell entry) expression in β cells, the primary deficit in insulin production is probably mediated by factors such as inflammation or the infection stress response, along with peripheral insulin resistance. 53 (54% of patients) without diabetes mellitus had D-dimer levels $515 \pm 624 \text{ ng/mL}$, 45 (or 46%) of them in severe situation and with diabetes had D-dimer levels $1509 \pm 2420 \text{ ng/mL}$. Persistent hyperglycemia can lead to endothelial dysfunction and inflammation and further to thrombus formation. This study showed that a severe form of SARS-CoV-2 infection, together with diabetes, has a higher probability of causing coagulopathy and poor outcomes. Serologic testing for type 1 diabetes-associated autoantibodies and repeat post-prandial C-peptide measurements should be obtained at follow-up in patients with newly diagnosed diabetes mellitus in the absence of traditional risk factors for type 2 diabetes, whereas it is reasonable to treat patients with such risk factors akin to ketosis-prone type 2 diabetes.

3.3 D-dimer levels found on patients in Intermedica laboratory after taking the test

After receiving the confirmation of the data and a research on the patient records at the INTERMEDICA clinic, on the values of D-dimer in the latter during the period February 2020 - February 2021 it was concluded that during the period February 2020 32 patients were tested of which 17 (53.1%) were male and 15 (46.9%) were female while positive suspects resulted in 10 patients among which 1 of them resulted in high D-dimer values of 11.36 mg/mL . During February 2021, 1796 were the number of tests taken by patients according to their health conditions, 882 (49.1%) of them were females and 914 (50.9%) were males. People concluded in the study in February 2020 were from the age 24 to 84 years old. According to the data, patients who took the D-dimer test in February 2021 were from 12 to 86 years old.

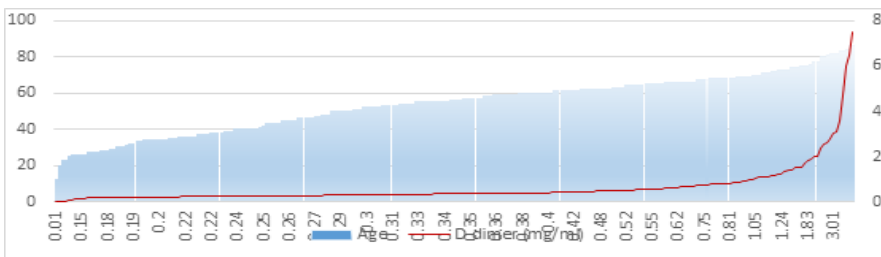


Figure 4. D-dimer levels according to the age of patients that underwent testing.

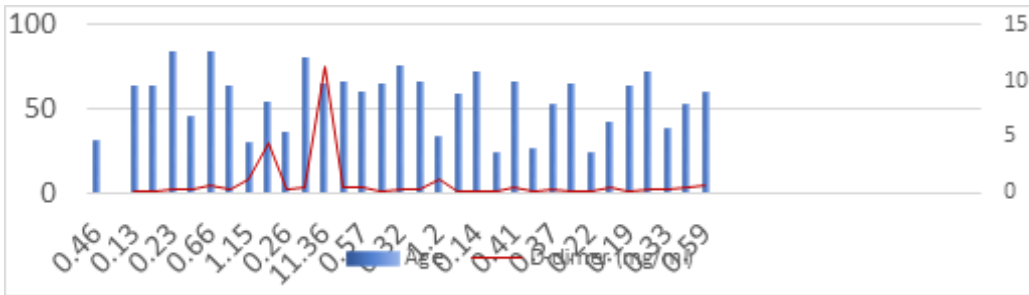


Figure 5. D-dimer values according to the data obtained from Intermedica laboratory, February 2021.

3.4 D-dimer levels found on 537 patients that took D-dimer test in BIO Best Albania laboratory

After analyzing the data obtained from the laboratory BIO BEST Albania we came to the conclusion that the highest level of testing and D-dimer values, were during the period November, December 2020 and February 2021. In October, during the measurements it was concluded that out of 43 patients 26 (60,46%) were female and 17 (39,54%) were male. Of these patients 7 of them underwent testing for the second time as a result of changing D-dimer values. The highest D-dimer values during October was 2985 ng/ml. During November, out of 152 patients who underwent laboratory analysis, 60 (39,74%) were female while 92 (60,26%) were male. 35 patients underwent a second test as a result of extremely high D-dimer values recorded with a peak of 88311 ng/ml. During December, 108 tests were performed, of which 53 (49,1%) were female and 55 (50,9%) were male. Of these tests, 13 were recurrences as a result of the patients' severe clinical condition with D-dimer level 8567 ng/ml. During January 2021, out of 71 patients performing testing on D-dimer levels, 37 (52,1%) were female and 34 (47,9%) were male. The test was repeated by 18 patients, one part for control of D-dimer levels while the other part (15 patients with levels above 1000 ng / mL) as a result of deteriorating health. Meanwhile, in February 2021, out of 163 patients who underwent laboratory testing, 81 (49,7%) were female while 82 (50,3%) were male. Testing, as in previous months, was repeated by 13 patients as a result of a proportion of patients still exhibiting high D-dimer levels. The highest D-dimer level in February 2021, according to the data was 8061 ng/ml (0.6% of patients).

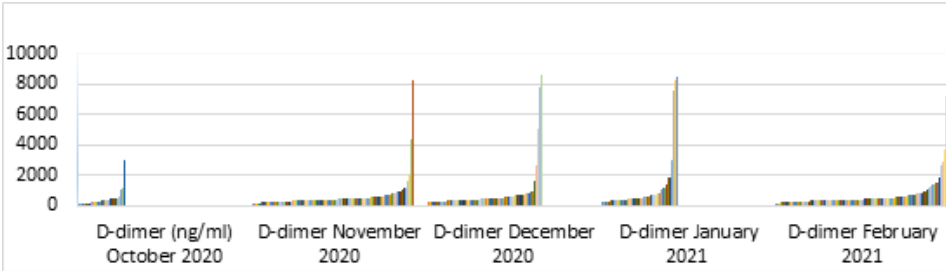


Figure 6. D dimer levels (ng/ml) BIO BEST Albania, October-November-December

Discussion

The COVID-19 pandemic is not only a challenge for healthcare professionals, policy makers, epidemiologists, and biostatisticians, who try to model data and make successful predictions, but also to the general public who faithfully adhere to recommendations such as social distancing, using masks and using good and frequent sanitizing practices (*Shanmugam. R etl.al., 2021*). In all identified studies, D-dimer levels are generally elevated in patients infected with SARS-CoV-2. Extremely high levels of it have been identified in patients in critical condition for life as a result of age, but also other concomitant diseases, so testing and identification of these levels is widely used as a prognostic marker (*Yumeng. Y et.al., 2020*). The results obtained from two medical laboratories about D-dimer levels in patients during the periods, respectively Intermedica- February 2020 and BIO Best Albania- October 2020 - February 2021, are only an indicative overview and do not provide detailed information about the accompanying problems of patients compared to other international studies. The results confirm the increase in teleworking across all countries during the COVID-19 pandemic, which has been documented elsewhere, and the report explores what this means for work/life balance and a number of elements of job quality. Forecasting future developments in the pandemic is fundamentally challenged by the inherent uncertainty rooted in many unknowns, not just about the contagious virus itself but also about interrelated human, social and political factors that co-evolve and keep the future open to the pandemic (*Jianxi. L. 2021*). These unknowns make accuracy-oriented forecasting misleading. Even though, there are made many scientific researches, many other significant knowledge gaps need to be solved.

Conclusions: The main concomitant diseases such as hypertension, diabetes mellitus, dyslipidemia, obesity and family history with cardiovascular problems are the key points of occurrence of severe COVID-19 problems, while on the other hand, pregnancy is a hypercoagulable condition with significant physiological increase of D-dimer levels, except COVID-19 and thromboembolism that may develop. Usage of anticoagulant therapies with LMWH, antiviral therapies, anti IL-6, antibiotics, etc., have been some of the first lines in the treatment of patients with high levels of D-dimer affecting the immediate improvement of symptoms

In conclusion, further studies are required to confirm findings in different geographical areas, and investigate relations between D-dimer levels, progression of the virus in the host body and clinical prognosis. The quality of the COVID-19-related researches in two cases laboratories in Albania, is below the quality average of the two other journals. Unfortunately, our numbers do not contribute to a solution as to how to preserve scientific rigor under the pressure of a pandemic.

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Female figure and the concept of love in medieval Italian literature

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Abstract

The image of the female and the effects that this concept produces in everything that surrounds her are in constant change in configuration, expression and conception.

This article aims to analyze the ways the female figure and the concept of love was transformed in time in the Italian imagination and culture, connotations and peculiarities that these concepts have gained and lost in time.

The intervention will begin with a brief description of how the concept of love was born in its sentimental and sensual aspect in court life as the contextualization and description of the contest where it was born helps us understand this concept from a historical, social and cultural point of view.

We will see how the female figure becomes the dominant not to say exclusive theme and takes on a new aspect that has nothing to do with the classical tradition of literature by translating all this into a particular conception of love.

In the following will be illustrated how the topic of love in Italy was addressed starting with the poets of Sicilian School who further deepened this concept on a philosophical and moral level and continuing with the *stilnovisti* and some of the most prominent writers of the Italian literature as Dante and Petrarch who simplifies and transforms the entire repertoire so far of this lyric by defining models that will be imposed for centuries throughout European literature.

Project Objective:

The objective of this article is to bring a detailed presentation of the treatment given to female figures by the authors of medieval Italian literature noting the changes that this concept has undergone over time.

Introduction

The Emergence of the Concept of Love in Court Life

The theme of love and the female subject occupy an important place in the literature of the late Middle Ages, serving as pillars of the courtly vision that will in turn inspire the entire culture of those times era.

Prior to this period, the social, economic and cultural life of Europe seems to have been frozen in an apocalyptic vision of reality, in accordance with the widespread belief, propagated by the clergy, that the end of the world was imminent, making people live in anticipation and fear. The Middle Ages had condemned love as a source of perversion of feelings, of sin and damnation, counterposing it to the mystical love of God.

As a result, the female, object and symbol of love, was presented as a devilish being representative of evil.

After the year 1000, history changes course, and as the economy and urban life are renewed, so is culture.

Beginning from the 12th century, the concept of woman changes: she is no longer a symbol of sin, but is transformed by court literature into a sublime being.

Courtly love constitutes an evolution in the culture and mentality of the Middle Ages in relation to the female figure. At the center of the poems written in this period lies the theme of love between a man and a woman. Love is shown and described in a new way and gets a new name: "courtly love". It is interesting how this new vision of love was born and cultivated in the feudal courts. The courts are where the lords lived, surrounded by the aristocracy comprised of the knights and the ladies. The lords and the knights mainly engaged in warfare and the values that characterized life in this period were those of service, faith and obedience. But as wars became increasingly rare, participating in them also declined in importance. During this period, new values less related to the military past began to be imposed on the world of the court, among which were generosity, honesty, refined taste, in other words, courtesy. These new values began to be expressed through new poetic forms, such as in the works of the 12th century *troubadours* of Provence, marking the beginning of what is known as *chivalric love*. The first elements of court literature originated in France in the early 12th century as a reaction to the moral ethics of the church, existing modes of thinking, and tradition. Courtly love brought on a new vision of love thanks to the troubadours, a love based chiefly on the sublimation of woman, presented as the most beautiful and the most noble.

The knight no longer devotes his whole life to his master but rather to his woman, serving her and promising to remain faithful and devoted to her. It is a kind of love that is a source of virtue because it perfects the soul. Such an ideal of love could not have been for the masses but only for a select few who might have been able to appreciate it, and as such its birthplace were the refined courtyards of southern France. With time, authors of poems in the "vulgar" language began to write about courtly love, achieving great success in Italy in the second half of the 13th century. For them, feudal nobility is no longer important, instead what matters is the *gentilezza*, the "gentleness" of the heart. They did not start writing about love in order to affirm the superiority of their soul but rather that of gentleness, and of being different from the uncultured and those who do not speak the language of poetry.

Courtly love emerged as a concept in Italy among the *dolce stil novo* authors and the Sicilian poets. Andrea Cappellano is the author of the treatise *De Amore*, a summary of the elements of courtly love written in Latin. Love is a feeling that softens the soul of the one who experiences it, and the main message of the treatise is that only those who love have a noble heart. Love is presented as a double feeling, the unrelenting pursuit of the balance between suffering and pleasure, anxiety and exaltation. The poet describes the experience of love as a process that starts from the moment he sees the woman until, through feeling, he arrives at the abstraction of her image now become myth.

Loyalty to the woman is one of the key elements of courtly love, often experienced at a distance and always occurring outside conjugal relations. In marriage, which is often a contract signed for economic or inheritance reasons, there can be no true love. This element of "betrayal" also requires secrecy in order to preserve the woman's honor, this also being the reason for which the poets never mention her name and the lovers live their feeling in perpetual distance.

According to the code of courtly love, everything revolves around the woman, once

portrayed in literature merely as a weak and inferior being, but now considered the source of all courtly virtues. The female is now regarded as a sublime, unattainable being, and the male submits to her as a submissive servant. Love is synonymous with courtesy, and only the noble can love.

The Female Subject in the Poets of the Sicilian School

The first to expand on the subject of courtly love in Italy were the poets of the Sicilian school of the first half of the 13th century. The Sicilian poets were all government officials, notaries, like Iacopo da Lentini, or judges, like Guido delle Colonne; to these court officials poetry was merely a flight from reality, or the mark of belonging to an elite, and for them love, the sole subject of their verses, was an aristocratic, refined game. The subject most often encountered in Sicilian poetry are those typical of courtly love, but in some poems a new motif appears, to be further developed. The tribute paid to women is enriched with religious imagery, transforming the female figure and the joy of love into the peace of paradise. But this development will inevitably lead to a conflict between the love for woman and the love for God.

From province lyricism the Sicilians especially revisited the theme of their songs: first love according to the feudal perspective. However, in the poetry of the Illyrians, love becomes more abstract. In fact, the basis of courtly love is the feudal reality, according to which a woman, generally a lord's wife, was loved and admired by the loving poet who often hoped, in vain, that this love would be rewarded. This concept of "*fin amore*" (perfect love) in the lyrics of poets as Sicilians have less pathos. The poet and the woman speak with glances and the images that are created in the poet's mind express the joy and suffering of love. Although they revived the themes of love from Provençal poetry and its stylistic forms they sang of love as a unique emotion.

The Angel Woman: The Female Subject in the *Dolce Stil Nuovo*

These themes will reappear several decades later in the authors of the *dolce stil nuovo* movement, the successors of courtly poetry.

At the center of the *dolce stil nuovo* is the figure of the angel woman, from whom the poets draw their inspiration. The woman is not described as an earthly being, but as a mystical creature sublimated to an extreme degree in the verses of the *stilnovisti* poets who inherited the concept of the angel woman from previous poetics, but transformed it through a philosophical and intellectual process. The *stilnovisti* succeeded in renewing the literary culture of the Sicilian school and of the troubadours both stylistically and in terms of content. The angel woman figure who plays a key role in *stilnovista* poetics is not an invention of this literary movement, but is also found in previous works of poetry where the analogy between woman and the celestial being was merely a comparison on aesthetic grounds. For the *stilnovisti*, instead, the beauty of the angel woman is a beauty that comes from God with all the virtues necessary to arouse in man the feeling of love, and that through this mystical experience can elevate his soul. The first depiction of the angel woman can be found in the sonnet *Al cor gentil rempaira sempre amor* by Guido Guinizzelli, which may be considered a genuine manifesto of *stilnovista* poetry. Guido Guinizzelli is also considered the founder of the *dolce stil novo* movement. In his poems the relationship between man

and woman no longer appears as a relationship between vassal and lord, but as one between angels and God, and hence within a theological rather than feudal context. Love is imbued with religious values and turns into a kind of mystical cult of woman that transforms into a supernatural being comparable to the deities themselves. Much of Guinizzelli poetic output also defines the two central themes of *stilnovismo*: the suffering caused by love and the praise of female perfection.

The inclusion of the poet's personal experience is one of the greatest innovations of *stilnovismo*, allowing each poet to tell the experience of love in a different way, and thus, despite belonging to the same well-defined *dolce stil nuovo* movement, to bring a personalized reading, different from that of the others.

Guido Cavalcanti is another poet and member of this movement who wrote on the subject of the angel woman. In addition to revisiting the aforementioned subjects, Cavalcanti, also known as the "cursed" poet, also talks about the destructiveness of the passion of love.

The depictions of women in Cavalcanti's sonnets are characterized by an abstraction process where the lover conceives of the very idea of beauty from the outward appearance of the angel woman. With his sonnets, Cavalcanti surpasses the poetry of Guinizzelli when he describes woman as a figure who embodies flowers, light and, everything else that is beautiful to the eye, thus marking the beginning of a new lyrical trend that, through Petrarch, will influence all the western poetry of the following centuries. In Cavalcanti's sonnets the woman is a perfect and superior being that cannot be described and understood by the mind of the lover. This is indeed characteristic of this literary movement, according to which the female subject is indefinable, almost supernatural, and therefore no one can be at her level or even be dignified enough to speak to her. The poet's meeting with the woman greatly influences him, and the "disease of love" so well addressed in the treatise on love *De amore* takes center stage in the poetry of the stylists. The poet takes importance from the ability to overcome the psycho-physical crisis that love causes him.

The Female Subject in Dante

Dante Alighieri, one of the most brilliant *stilnovisti*, followed on the footsteps of Guinizzelli and Cavalcanti along the same line. Dante confesses that he first met Beatrice at the age of nine. At the age of eighteen he meets her again, but when he realizes that his feelings will be denied he suffers deeply. This is the reason why in the first part of the *Vita Nuova* the poet recalls Cavalcanti's model of destructive love. In the second part of the text, Dante realizes that the end of his love should not be material, but rather in words of praise for his woman along the model of Guinizzelli. In the course of the third and final part of the work, the love for Beatrice rises to another level, much higher than the courtly one of the troubadours. Love is no longer an earthly passion, though sublimated and refined, but turns into a divine force. Dante surpasses the previous models of the *stilnovisti* Guinizzelli and Cavalcanti, for whom woman was a gift and miracle of God, but love was simply a process that went from God to the poet, in the model God - woman - poet. Dante exceeds these limits. Love for the woman elevates the soul to the worship of heaven. The *stilonovista* themes, the female and her spiritual beauty, the exaltation of the soul thanks to love, are expressed in a delicate and musical language. Dante describes two ways of understanding and experiencing love: one is that which leads to hell,

and the other that which leads to heaven and God. According to the poet, the woman is an angel who brings to the world the divine power of Love. It is important not to underestimate the emotions that love evokes. Dante does not deny them and says that they should be lived within the control of reason. He then focuses his attention on female beauty, exemplified in poems like the sonnet *Tanto gentile e tanto onesta pare*.

Petrarch and his Influence on the Subsequent Literary Tradition

Another famous poet after Dante revisits the theme of courtly love: Petrarch, who dedicates to Laura almost all of *Canzoniere's* lyrics where the voice addressing the readers is one experienced in love. In the forms and images of the female world of his poems, however, every trace of physical realism and concreteness is eliminated: acts, gestures, situations are all placed in a symbolic plane of attraction and become signs of inner experience. The female name itself paves the way for a series of symbolic connections that refer to Petrarch's poetry and cultural ambitions. If we compare Laura with the female characters of Dante, we will see that love is valued for what it is, not as a sublime feeling that refines the soul, nor as a force that leads to God, but as a strong sensual desire, a true obsession. Laura is no longer the distant idol of the *stilnovisti*, nor a supernatural being like Beatrice, but a human being whose beautiful body does not escape the destructive force of time. Laura's appearance in heaven after death is not a mystical vision, but a comforting fantasy, where the poet seeks the fulfillment of a wish that can no longer be satisfied. Although at first glance it seems as if Petrarch revisits the previous themes, his concept of love is in fact a rejection of the court themes as well as those of the *stilnovisti* and Dante.

Laura can be considered the first female character imbued with modern features compared to the female characters of the *dolce stil nuovo* where beauty is valued in relation to God. In the *dolce stil nuovo*, women's moral features prevail over their physical ones, while Petrarch is the first case that a poet's great love is not dedicated to God but to a woman, a beautiful woman who should not only be observed but a beautiful woman that was created by the passionate love of the poet.

Laura is not perfect and her beauty fades over time - she is not eternal like the female subjects of the *stilnovisti*. The angel woman is transformed into an earthly woman who ages and dies.

Petrarch imbues the female subject with a personality and depicts her through the normal stages of youth, aging and death.

Conclusions

The female subject has not always been treated as it is today, and for this it suffices to go back in time to encounter a much more spiritual conception than what we find today. In courtly literature the female subject takes on a full role for the first time. Woman is seen as the inspiration of courtly love, requiring complete devotion. As a result, love triumphs over all other themes in the centuries that follow. The female subject is reevaluated through the lens of courtly love and becomes the model for the literature of subsequent centuries. This treatment of the female subject was predominant in Humanist literature as well as during the Italian Renaissance in the 15th-16th centuries, and exerted a strong influence on European literature more broadly.

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Important features having a great impact on 'The Lay of Beowulf' and 'Frontier Warrior Songs of Muji and Halili'

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Abstract

People used art since ancient times. Art is multiform and literature is part of it as it is the word art which helps people express themselves in different ways. It has passed through various stages and obstacles till it has achieved in what is nowadays' shape. Art is manifested in a lot of branches and oral literature is one of them. It is one of the oldest and earliest stages and it is considered as the cornerstone of modern literature. Oral literature is one of the initial ways of conveying art where authors expressed themselves orally and later their masterpieces were registered in the written form. It is that part of literature that deals with the main heroes, their way of living, behaving, acting and fighting and one of the most crucial characteristics describing the age is authoritarianism which is demonstrated in the way how the main heroes behave, how they are treated and treat the other warriors and in the language that is used to describe battles, their way of thinking, behaving, communicating, fighting, feelings, attitudes and the social organization. Its main forms are: epic, romance, allegory, lyric and drama. Medieval literature is often anonymous and the *bards* or *scops* (the songs were usually dedicated to the nobles) were the ones who kept the material circulating mainly through singing (sometimes accompanied by an instrument); so they were those who helped to resist these songs by passing from one person to another these popular creations that were made to honour certain persons for their heroic deeds, loyalty, character, impact and readiness to fight to death. These are some of the virtues celebrated and glorified and whose influence on the history of every country was really immense.

Keywords: literature, art, lay, warrior, songs.

Introduction

People used art since ancient times. Art is multiform and literature is part of it as it is the word art which helps people express themselves in different ways. It has passed through various stages and obstacles till it has achieved in what is nowadays' shape. Art is manifested in a lot of branches and oral literature is one of them. It is one of the oldest and earliest stages and it is considered as the cornerstone of modern literature. Oral literature is one of the initial ways of conveying art where authors expressed themselves orally and later their masterpieces were registered in the written form. It is that part of literature that deals with the main heroes, their way of living, behaving, acting and fighting and one of the most crucial characteristics describing the age is authoritarianism which is demonstrated in the way how the main heroes behave, how they are treated and treat the other warriors and in the language that is used to describe battles, their way of thinking, behaving, communicating, fighting, feelings, attitudes and the social organization. Its main forms are: epic, romance, allegory, lyric and drama. Medieval literature is often anonymous and the *bards* or *scops* (the songs were usually dedicated to the nobles) were the ones who kept the material circulating mainly through singing (sometimes accompanied by an instrument); so they were

those who helped to resist these songs by passing from one person to another these popular creations that were made to honour certain persons for their heroic deeds, loyalty, character, impact and readiness to fight to death. These are some of the virtues celebrated and glorified and whose influence on the history of every country was really immense.

Literature as every other part of art has different characteristics and features that influence and impact on the themes, motifs, character, and plot development of literal masterpieces. One of the most important features that had a significant importance is the time or the period when 'The Lay of Beowulf' and 'Frontier Warrior Songs of Muji and Halili' were written because it has to be taken into consideration as it justifies how a lot of things, reactions, and actions happened and they are also intertwined together and it is the historic and social development which explains why the main characters behaved in their own way. Today people may consider strange and weird certain behaviour and attitude which were manifested in the epic lay and the frontier warrior songs but it should not be forgotten the fact that people and society had other education, background and relationships with one another, their families, neighbours, enemies. They lived and fought for their honour but also their country and family.

When a book is read nowadays, it is taken for granted without sometimes thinking about its path towards and what is actually literature has descended and originated from oral tradition. The oral transmission or the word of mouth, which in many cases was reflected and has arrived to us as frontier warrior songs sometimes accompanied by musical instruments, has its origin and beginning from the Middle Age Period. It was written long ago and through years different alterations have undergone. Its main and most important aim was to describe the reality of people (in some cultures they were about simple common people whereas in other countries they were mostly dedicated to the nobility), their daily life problems; it produced a valuable culture and those roots are important even in these days and are the basis of modern literature. It has survived many centuries to come to the shape and structure it has today and that is not the only distinctively important literary value because it also has a historical value.

Because of its first oral transmission and the long time span when it was written it lost some verses and sometimes whole fragments and pages, it suffered manipulations, amplifications and changes making them take another character and purpose from that of the original one. People since the very beginning believed in God which was a valuable source to make people behave and react according to a certain code and rules that varied from one country to another. So, for example in "*The lay of Beowulf*" a Christian breathing can be felt although the time when it was written corresponds to a pagan period. Although God is not mentioned directly it is clearly understood throughout the poem especially in the lines where "*the almighty hand*" is mentioned, while Grendel and his mother identify *Cain and devil* himself, meanwhile one of the main heroes Beowulf *dies* like Christ giving his life for his people.

He who could tell

*of the origin of men from far- off times lifted his voice,
sang that the Almighty made the earth, ¹*

¹ Heaney, Seamus: (2000): *A new verse Translation, Bilingual edition*, New York, Farrar Straut and Giroux.

Also, in the Albanian epic frontier warrior songs of “*Muji and Halil*” there are passages where it can be seen and felt the presence of God because the first verses that begin nearly in every song are dedicated to him and to the fact that they are alive because of his wish and will and in a way people thanked God for their existence through verses:

‘Blessed we are, thanks to the Almighty

*For nothing we were until God did create us’.*²

Resistance of the main characters and heroes prevails in the frontier warrior songs and one of the main themes and at the same time the most important one that traverses Albanian epic creations and “The lay of Beowulf” is that of *resistance*.

In “*Muji and Halili*” the resistance implies not only to protect their families but to defend their people from confrontations with enemies (usually coming from their neighbor countries) and to protect their land, boundary, lives, houses, honors, personal glory, pastures, women and so on and as a result many fights and encounters were handled where the glorious heroes went to fight. They saw it as their duty and responsibility and did not mind that they were mostly going to be killed. Furthermore it has to be considered the fact that they struggled with simple weapons because sophisticated arms were not invented yet at that time. They are fearless even when they are in front of somebody in authority such as in the epic song: *‘Mujo visits the sultan’*.

‘Such brave young men were Mujo and Halili,

So rough-and-tumble, so brave and so young!

Never did they leave a highway unambushed

*Nor did they shrink from a baloz in a dull’*³

Albanian and Anglo- Saxon may have had similarities but being from different countries they had their distinguishing characteristics, as well. On the other hand another kind of resistance can be found in “The lay of Beowulf”. Beowulf who is the leading and the most significant central figure, wanted to establish his identity and reputation which were so important for him and the companions that were warriors of the time. His youth was his advantage and he knew he was superior as he was aware of all his perks such as age accompanied by his strength; he was courageous, fearless and always ready to defeat everyone because he was young, powerful and mighty and as a result of those advantages he was fearless of everything and everybody.

King Hrothgar of Denmark has had a successful reign for many years but age has had its influence on him and there comes a time when Grendel, a monster from the sea, because of his *envy* (he stays in his lair underwater because of his birth defects) comes and kills the warriors in the Heorot hall when they are receiving gifts, drinking, laughing, celebrating in the great mead- hall. Hrothgar is in difficulty and cannot change the situation himself. People are frightened because Grendel comes every night, attacks and kills a warrior. Beowulf, a Geatish warrior, hears about these slaughters and decides to go willingly to the mead- hall, Heorot, and declares that he can defeat the monster. It is a difficult battle as he will combat unarmed because

² Elsie, Robert and Mathie Janice: (2004): *Songs of the Frontier Warriors*, Wauconda, Illinois: Bolchazy Corducce Publishers. Inc.

³ Elsie, Robert and Mathie Janice: (2004): *Songs of the Frontier Warriors*, Wauconda, Illinois: Bolchazy Corducce Publishers. Inc.

Grendel does not use arms. Everybody is happy, confident and trustworthy that this situation which has lasted for 12 years is going to finish.

Two mighty marauders who haunt the moors.

One shape, as clearly as men could see,

Seemed woman's likeness, and one seemed man,

An outcast wretch of another world,

And huger far than a human form.⁴

A particularity of the main characters is that they want to establish *their own identity, dignity and reputation*. Beowulf comes not only to kill the monster but he wants also to show and tell the world about his strength, his capacity of struggling and receiving treasure in the form of rings by the king and donating immediately them as he is called the ring-giver. Becoming wealthy is not the main goal of them, they want to enter in history, they want to be remembered as great warriors, they are proud of themselves knowing what their might is, they want to be remembered, to be talked and sung about them, their heroic deeds even after their death and this can be done with the help of scop/s bards. Boasting helps to higher and better establish their reputation and have high expectancies.

I had a fixed purpose when I put to the sea.

As I sat in the boat with my band of men,

I meant to perform to the uttermost

What young people wanted or perish in the attempt,

in the fiend's clutches. And I shall fulfill that purpose

prove myself with a proud deed

or meet my death here in the mead-hall.⁵

Another important feature is that of *loyalty and treachery* which permeates both "The lay of Beowulf" and "Muj and Halil epic songs". The best representative example of loyalty is Beowulf. Firstly, as he presents himself, he comes because he owes a favour to Hrothgar, king of Danes, who had once helped his father. He is accompanied by his warriors that are ready and eager to combat for him and with him till the last breath. By the end of the epic lay there is another situation. Beowulf in his last fighting with the fire breathing dragon is still accompanied by thanes but they are coward because they let him alone in his engagement terrorized by the monster, apart Wiglaf, a trustworthy warrior who stays near him till the end and fulfills his last desires. The loyalty that is presented in that part of the lay is a pure and sincere one, it is that of a warrior towards a king doing just his duty without waiting for personal benefits and vice versa of a king towards a warrior and this is the most honoured essential value of a fighter.

Before long

the battle – dodgers abandoned the wood,

the ones who had let down their lord earlier

the tail-turners, ten of them together.

When he needed them most, they had made off.⁶

⁴ De Roche Joseph: (1988): *The Heath Introduction To Poetry*, Lexington, Massachusetts/ Toronto, D. C Heath and Company.

⁵ Heaney, Seamus: (2000): *A new verse Translation, Bilingual edition*, New York, Farrar Straut and Giroux.

⁶ Heaney, Seamus: (2000): *A new verse Translation, Bilingual edition*, New York, Farrar Straut and Giroux

This theme is laid throughout the epic songs of the Albanian cycle. The main heroes Muj and Halil are loyal to one another and their people, the thirty followers are loyal to their chieftains, and the wives are loyal to their husbands, sons to their father and sisters to brothers. In songs it is manifested that it is a long period that they wait for them while they have gone defending their country against the enemy and have ended in prison and may stay there for years without having contacts with their families and relatives and also without any news from them.

Pride, generosity and reward pervade "The lay of Beowulf" and "Muj and Halil". In order to fulfill their heroic deeds after the struggle finishes Beowulf is rewarded with golden rings who later gives most of them to the chieftains so as to retain the support of his followers. He fought not to receive gold, but he needed it as a sign of bravery, courage, shrewdness, and strength. Beowulf is eager for fame, and he gives much of his treasure to the thanes because reward is seen as a sign of establishing reputation and dignity. In the end of the lay in the last part where are described his last moments of life the treasure that the dragon had been guarding is his and it is buried with his proprietor in his grave.

Envy is another motif that permeates these folk creations. The most notorious character in "The lay of Beowulf" is Grendel. He bears all the worst attributes that can describe a character. The ones that characterize it are envy and jealousy. It is envious and jealous because it sees itself, its body, and its capacity to speak. It compares itself with the warriors; it is tempted to put an end to all its suffering. Grendel thinks that slaughters come to put justice, this is the way how it judges. Unferth, another character in "The lay of Beowulf" who is jealous because he is unable to beat Grendel, wants to prove himself superior to Beowulf when he mentions the case that Beowulf was beaten in a swimming match with his friend Breca in his youth. This is present also in "*Halil after death*" where Arnaut Osmani deceives Halil by telling him that the Serbs have killed his brother Muj. Halil goes to take *revenge* (another motif this one) for his brother and after a heroic battle he is killed. Furthermore the second part of the "Lay of Beowulf" is concentrated on Grendel's mother revenge. She does not stand the fact her only son was killed and it is she then that causes slaughter.

Vengeance is part of their honor. In many cases it comes as a result of *betrayal*. In "Mujo's wife is kidnapped" the king's (kraj) wife declares that he is nothing compared to the power of Gjeto Basho Muji. The king kidnaps his wife and Mujo goes to liberate her but he is betrayed. In the last moments of his life, after his demand, he is allowed to play the lute and its tune is heard by the *ora-s*. They send Halil to help Muj who is in difficulty. Halil sets free his brother Muj who slays his wife because of her betrayal.

Fate accompanies the warriors in important instants of battles and life, too. Muj and Halil are accompanied by their *ora-s* that help them in the most crucial moments. When the heroes are dying, they intervene and change the situation either by giving them more strength or by telling a trick or a secret such as where they can find a poisoned knife that seems to be the right key to get out of that difficult situation. In "Muji and Behuri" we have:

And when he turns his head to see it,
Put your hand in his left pocket,
There you will find a poisoned dagger,

And if you're skillfully maneuver.⁷

Beowulf when he was in his combat with Grendel's mother in her lair was helped by a divine, supernatural force that sent a magic sword, a huge and matchless one, he caught seize of it, handled and slashed through her neck. He has undergone a revival becoming now a leader.

Then Beowulf saw among weapons an invincible sword
Wrought by the giants, massive and double-edged,
The joy of many warriors; that sword was matchless,
Well-tempered and adorned, forged in a finer age,
Only it was so huge that no man but Beowulf
could hope to handle in the quick of combat.⁸

In the epic songs Muj dies and he is reborn after some years and continues his life where he left.

The main heroes are courageous, indifferent to death, they are looking forward to gaining praise, sacrifice themselves and don't think about their own lives. Beowulf in his last combat knows that he is not as strong as he used to be because he is not young anymore, however he continues his struggle and sets free his people but with a very precious price, his life.

Mothers lament their sons such as 'Ajkuna laments Omer' is one of the most impressive Albanian epic songs. Grendel's mother laments her slain son also. As characters they are very far one –another but anyway they have feelings as they are mothers.

These were some of numerous features that have influenced and contributed to create these important epic pieces of literature. There are other ones such as the relationships between brothers, sister-in-laws, kidnappings, laments, weddings but the heroic code is the most predominant theme and under the heroic code grief is something to be cleaned out by vengeance.

Regardless of their feats, their good-hearted characters even the life of a superhero comes to an end. Their heroic deeds are carved in songs and they continue to be sung even after their death. In Albania the songs of Muj and Halil continue to be sung even today. Nowadays they are recorded in books which are kept as a part of precious heritage. There are no interventions in the text, they just keep trying to maintain the tradition alive and convey it to the young generations. These songs belong to the distant past but still they are really important as they are the real evidence of the evolution of literature. They are the cornerstone and a great source for the following literary masterpieces. What is written there is a great heritage to the followers, a good and strong basis which needs to be continued.

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Evaluation of the efficiency of apple fruit production, cultivated by the farmers of Korca region, through the use of mathematical methods.

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Abstract

The development of the agricultural sector is one of the priorities of economic development of Albania, where the production of orchards occupies an important place. The production of fruit trees in 2020 was 273,749 tons. The group of fruit trees with seeds occupies 44.41% of the production where the main weight in this group is occupied by the production of apples with 84.03%. Korça region occupies 83.14% of the total apple production in the country. The most popular areas for high apple production in Albania are Korça and Dibra. Albanian apples are the most natural and purest in Europe. Spraying with pesticides is 10 times lower than that apples grown in other Balkan countries and 15 times lower than in Central European countries. Overall, apple production continues to show significant growth. The growth rate was faster in 2018 when the production volume increased by 12.25% compared to a year ago. During 2019, about 200 tons of industrial apples were exported to Bulgaria and Greece. Korça leads exports thanks to the increase of production standards and their treatment. Korça farmers have become the main suppliers of apples for industrial production and consumption in foreign markets. The export of Albanian apples is attracting the attention of other major markets of European Union countries, such as Bulgaria, Greece, Austria, Germany, etc.

Since the quality and quantity produced is one of the most basic issues for farmers, in this paper will be a mathematical description of the laws operating in apple production, namely the production of apples by farmers in the village of Burimas in Korça. A considerable number of socio-demographic and economic factors of farms are assumed to play a role in increasing apple production and productivity, but in this paper, special focus will be given to the relationship between the amount of apples produced and the chemical fertilizers used. This relationship will be analyzed through the construction and use of two mathematical models: the multifactorial model and the DEA model. This study helps farmers in the village of Burimas, Korça and beyond to design budgets for productive activities and to forecast apple production costs.

Keywords: Korça region (Albania), apple production, efficiency, mathematical models.

Introduction

In terms of fruit production, Albania is a significant market. Fruit production contributes significantly to Albania's agricultural economy, accounting for roughly 20% of overall agricultural output. Apples are one of the most common fruits grown and consumed in Albania. According to official figures, approximately 2,566,832 apple roots have been planted in Albania, yielding 105,933 tons of fruit. The key drivers of

the apple sector's development have been land, climate, human capital, and tradition. Red Chief and Starking are the most popular types in Albania. Both of these types are known as "Starking" in the area, and they account for 52 percent of the fruit trees, followed by Golden Delicious apples, which account for 42 percent. Gala, Mutsu, and Granny Smith apples are among the other apple kinds farmed in the area. The quality and resistance to insects and illnesses of apple cultivars cultivated on Albanian soils are influenced by the soil composition as well as the quality and resistance to insects and diseases. Apple production has risen dramatically in recent years, surpassing the 105.9 million ton mark in 2019. This rise is due to an increase in farmed land as well as advancements in technology and technical understanding. Apple export demand has soared as output and quality have improved. Apart from Kosovo, Montenegro, and Northern Macedonia, Albanian apples are catching the attention of other important European Union markets, including Bulgaria, Greece, Austria, and Germany.[6], [5]

The paper's major goal is to:

The use of mathematical models to evaluate the efficiency of apple production. The settlement of Burimas in the district of Korca is the focus of attention.

The following are the paper's specific goals:

1. Determine whether the farmers in Burimas village have considerable reserves for increasing apple production.
2. Determine the maximum and most likely apple output by this village's farmers.
3. We are able to do scientific planning in terms of apple output by these farmers and the cost per unit by recognizing the internal reserves.
4. Assess the efficiency of certain farmers in terms of apple production and chemical fertilizer use.

5. Methods and procedures

6. The following components will be employed in relation to this study to achieve the desired objectives:
7. The goal of the study is to determine the impact of fertilizer on the amount of apples produced.
8. Because the link between the elements is reasonable, and there are other studies that demonstrate the link between apple output and the chemical fertilizers employed, the magnitude of the problem formulation is obvious.
9. Questionnaires gave information for the search. Telephone interviews with several farmers in Burimas village yielded a total of 15 brief surveys. Because the analysis was done at the micro level with farm analysis units, this data is micro.
10. Background information and the problem
 - To improve the effectiveness of this apple, a multifactorial model was used. One of the key elements that impacts the cost of apple production by farmers, and hence their revenue and profits, is the use of the appropriate amounts of chemical fertilizers in the growth of orchards, specifically in apples. The goal is to advance toward a more efficient utilization of the agricultural farm economy's internal reserves in order to boost farmers' economic performance. Increased apple production depends on the proper definition and harmonization of production variables (particularly fertilizers, which are one of the most significant components) that have a direct and multiple impact on the growth of domestic reserves.
 - Using the Dea model to assess the efficiency of each unit (farmer) involved in the apple production process.

- Using mathematical knowledge and models in the economic-financial analysis of the overall influence of factors on production growth is a priority in current agricultural and non-agricultural advancements. [9],[6]

Methodology

The goal of this work is to emphasize the necessity of utilizing mathematical models to evaluate the efficiency of farmer-cultivated apple production.

The study's data is made up of both primary and secondary sources. Questionnaires provided the data for the search. Telephone interviews with several farmers in Burimas village yielded a total of 15 brief surveys. Because the study was done at the micro level by farm analysis units, this data is micro. Secondary data was gathered from the Ministry of Agriculture and Rural Development, INSTAT (Institute of Statistics), FAOSTAT (for production and consumption), and EUROSTAT (for production and international commerce), among other sources. Reports, remarks, investigations, and scientific journals are all included in the database. A multifactorial model is built based on the data collected from the questionnaires. The following

equation can be used to illustrate the model: $y = a_0 x_1^{a_1} x_2^{a_2} x_3^{a_3} x_4^{a_4}$ Where y is the dependent variable, which in our case represents the apple production (kg/dyn), while x_1, x_2, x_3, x_4 are the independent variables, which represent the chemical fertilizers used by the 15 farmers of Buçimas village.

Table 1. Data on apple production and use of factors by farmers in Burimas village, Korça.

Farmer's Number	Productivity (kg/dyn)	Dap (kg/dyn)	Nitrabor (kg/dyn)	Nitrate/Urea (kg/dyn)	Pesticides (sprayed 16 times) (kg/dyn)
Farmers 1	6,000	92.9	46.4	46.4	3
Farmers 2	5,500	88.8	44.4	44.4	3.2
Farmers 3	6,000	90	45	45	3.2
Farmers 4	5,800	90	45	45	3.2
Farmers 5	5,500	100	50	50	3.2
Farmers 6	6,000	89.6	44.8	44.8	3.2
Farmers 7	5,000	90	45	45	3.2
Farmers 8	5,000	100	50	50	3.1

Farmers 9	5,500	94.2	47.1	47.1	3.1
Farmers 10	5,000	90.9	45.5	45.5	3.2
Farmers 11	5,500	100	50	50	3.2
Farmers 12	5,000	100	50	50	3.2
Farmers 13	5,500	80	40	40	3
Farmers 14	5,500	100	50	50	3.2
Farmers 15	5,000	93.3	46.6	46.6	3.1
Average	5,453	93.313	46.653	46.653	3.153
Sum	81,800	1399.7	699.8	699.8	47.3

Source: Survey data collected

Findings and interpretations

The multifactorial mathematical model was evaluated and implemented to analyze

theyieldusingtheproductiveelementsconsideredinthestudy: $y = a_0 x_1^{a_1} x_2^{a_2} x_3^{a_3} x_4^{a_4}$ where for are the productive factors. While for are the parameters of the model. These parameters express the effectiveness of the application of relevant factors, the method chosen for calculating them provides the most accurate assessment possible. The maximum values of the parameters were calculated according to this formula:

where
The following values are derived from the calculations conducted using the preceding mathematical formulas, as well as the actual values of the productive factors:

P₁	0.3018
P₂	0.3038
P₃	0.3038
P₄	0.0905

Meanwhile, resulted:

a₀	475.52
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We logarithm both sides of the equation to do its linearization. A help table was created after logarithm to determine the model parameters where the reports are placed: The maximum values in each column are chosen and entered into mathematical algorithms to calculate the parameters. The following values were obtained from the calculations:

a₁	0.1702
a₂	0.2026
a₃	0.2026
a₄	0.2088

An Excel auxiliary table for computing model parameters has been created and is shown below:

Table 2. Auxiliary table for calculating model parameters

F	Y	$y/a_0=y'$	$\log y'$	$\log y'/\log x_1$	$\log y'/\log x_2$	$\log y'/\log x_3$	$\log y'/\log x_4$
Farmers 1	6,000	12.618	1.101	0.559	0.661	0.661	2.308
Farmers 2	5,500	11.566	1.063	0.546	0.645	0.645	2.105
Farmers 3	6,000	12.618	1.101	0.563	0.666	0.666	2.180
Farmers 4	5,800	12.197	1.086	0.556	0.657	0.657	2.150
Farmers i 5	5,500	11.566	1.063	0.532	0.626	0.626	2.105
Farmers 6	6,000	12.618	1.101	0.564	0.667	0.667	2.180
Farmers 7	5,000	10.515	1.022	0.523	0.618	0.618	2.023
Farmers 8	5,000	10.515	1.022	0.511	0.601	0.601	2.080
Farmers 9	5,500	11.566	1.063	0.539	0.635	0.635	2.164
Farmers 10	5,000	10.515	1.022	0.522	0.616	0.616	2.023
Farmers 11	5,500	11.566	1.063	0.532	0.626	0.626	2.105
Farmers 12	5,000	10.515	1.022	0.511	0.601	0.601	2.023
Farmers 13	5,500	11.566	1.063	0.559	0.664	0.664	2.228
Farmers 14	5,500	11.566	1.063	0.532	0.626	0.626	2.105
Farmers 15	5,000	10.515	1.022	0.519	0.612	0.612	2.080
Avarage	5,453	11.468	1.058	0.538	0.635	0.635	2.124
			Max	0.564	0.667	0.667	2.308

The multifactorial model looks like this when these parameters are used:

$$Y = 475.52x_1^{0.1702}x_2^{0.2026}x_3^{0.2026}x_4^{0.2088}$$

For the given amounts of production factors, this model was used to compute the maximum and potential production that each farmer can achieve. The greatest production that might be produced on the basis of the most rational usage of the components themselves was determined based on the actual amounts of production factors used by each farmer. The difference between this and actual output yields the greatest amount of underutilized reserves. The maximum unused reserves for each questioned farmer in Burimas village, Korça, were determined based on the findings. The importance of calculating maximum stocks is that it identifies the farmers who have achieved the best outcomes. Farmers who had higher-than-average yields were referred to as the highest performers. Because these reserves are calculated based on the top score of several farmers rather than one farmer's greatest score, they can be used to a greater extent.

In this case, the parameters are calculated using the following formula:

where $\bar{y}$ is the average of the ratios greater than their total average. These reports fulfill the condition:

The following are the results obtained for each model factor:

P₁	0.3084
P₂	0.3113

P₃	0.3113
P₄	0.069
a₁	0.174
a₂	0.208
a₃	0.208
a₄	0.159

And

The multifactorial model looks like this when these parameters are used:

$$Y475.52x_1^{0.3084}x_2^{0.3113}x_3^{0.3113}x_4^{0.069}$$

Unused domestic reserves for each farmer were determined using this methodology. These reserves are lower than those in the previous model, but they are also more likely. In addition to the reserves for boosting production (highest and most likely), the comparable reserves for decreasing costs can be computed using the above models as the difference between each farmer's actual cost of inputs of production and its lowest possible cost. The following formulas were used to calculate the minimum and minimal possible costs:

where: are the unit prices of the factors (). The costs and reserves for cost reduction of apple production were computed for each interviewed farmer in Burimas village, Korça, using the obtained data and estimating the price of one kg of Dap at 500 lek, nitra-bor at 750 lek, nitrate/urea at 400 lek, and one kilogram of pesticides at 300000 lek. Table 3 summarizes the findings.[3],[7],[10],[9]

Table 3. Calculation of apple production costs.

$\sum c_i x_i$	$Z_r = \sum c_i x_i / y_{\text{fact}}$	$Z_{\min} = \sum c_i x_i / y_{\max}$	$Z_{\min} = \sum c_i x_i / y_{\min}$
999810	167	163	163
1055460	192	174	175
1056750	176	173	174
1056750	182	173	174
1067500	194	165	165
1056320	176	174	174
1056750	211	173	174
1037500	208	161	161

1031265	188	166	166
1057775	212	172	173
1067500	194	165	165
1067500	214	165	165
986000	179	175	176
1067500	194	165	165
1030240	206	167	167

Source: Authors

We can deduce from the data in the table that farmers with the following numbers have significant reserves for improving apple production: five, seven, eight, ten, twelve, and fifteen. Even in terms of cost, farmers with the following numbers have significant reserves for lowering the cost of apple production: five, seven, eight, ten, eleven, twelve, and fifteen. The key conclusions of this paper are summarized in the table below

Table 4. Results obtained from constructed models

Denominations	Actual yields	Maximum possible yield	The most probable yield	(kv/dyn)		Actual cost (l/lkv)	Minimum possible cost	Most likely cost	Reserves (l/kv)	
				Maximum	Most likely				Maximum	Most likely
Farmers	(Y _{fakt.})	(Y _{max})	(Y _{mm})	(R _{max})	(R _{mm})	(Z)	(Z _{min})	(Z _{mm})	(R _{max})	(R _{mm})
F	1	2	3	4=2-1	5=3-1	6	7	8	9=6-7	10=6-8
Farmers 1	6,000	6095	6078	95	78	176	173	174	3	2
Farmers 2	5,500	6049	6030	549	530	192	174	175	18	17
Farmers 3	6,000	6122	6126	122	126	167	163	163	4	4
Farmers 4	5,800	6095	6078	295	278	182	173	174	9	8
Farmers 5	5,500	6476	6467	976	967	194	165	165	29	29
Farmers 6	6,000	6080	6062	80	62	176	174	174	2	2
Farmers 7	5,000	6095	6078	1,095	1,078	211	173	174	38	37
Fermeri 8	5,000	6434	6434	1,434	1,434	208	161	161	47	47
Farmers 9	5,500	6216	6212	716	712	188	166	166	22	22
Farmers 10	5,000	6133	6116	1,133	1,116	212	172	173	40	39

Farmers 11	5,500	6476	6467	976	967	194	165	165	29	29
Farmers 12	5,000	6476	6467	1,476	1,467	214	165	165	49	49
Farmers 13	5,500	5620	5613	120	113	179	175	176	4	3
Farmers 14	5,500	6476	6467	976	967	194	165	165	29	29
Farmers 15	5,000	6179	6174	1,179	1,174	206	167	167	39	39
Avarage	5,453	6201.5	6191.3	748.1	737.9	192.9	168.7	169.1	24.1	23.7
Sum	81,800	93022	92869	11222	11069	2893	2531	2537	362	356

Source: Authors

The DEA application will be presented in this section of the study, and as a database, we will refer back to the database in Table 1.

● Selected output:

Apple production by farmers in Burimas village, Korça (kg/dyn)

● Inputs include:

- Dap (kg/dyn)
- Nitrambori (kg/dyn)
- Nitrate/Urea (kg/dyn)

Pesticides (kg/dyn)-Spraying was performed 16 times.

The efficiency of each unit (farmer) involved in apple production will be determined using DEA.

Identifying decision variables

The efficiency of the unit to be evaluated () using DEA is defined as follows:

Efficiency of unit

The model's implementation (paving)

To determine the efficiency of unit 1, which is represented by the first farmer, we must use Linear Programming to solve the following problem.

Max: 6000 μ_1 output weight per unit (farmer) 1.

With the following conditions:

The Excel software is used to further solve this challenge (Solver Solution).

The DEA efficiency study for unit 1 is shown below (Farmer 1). [1],[2],[4], [8], [11],

Figure 1. Farmer 1's DEA efficiency study

Farmer Number	Unit	Output 1	Input 1	Input 2	Input 3	Input 4	weight	weight	difference	DEA
		Production (kg/dyn) 2018	Dap (kg/dyn) 2018	Nitrambori (kg/dyn) 2018	Nitrate/urea 2018	Pesticides (spraying for 16 times)	Output	Input		
F		Y	X ₁	X ₂	X ₃	X ₄				
Farmers 1	1	6,000	92.9	46.4	46.4	3	1.000	1.000	0.000	100%
Farmers 2	2	5,500	88.8	44.4	44.4	3.2	0.917	1.000	-0.084	92%
Farmers 3	3	6,000	90	45	45	3.2	1.000	1.008	-0.008	99%
Farmers 4	4	5,800	90	45	45	3.2	0.967	1.008	-0.041	96%
Farmers 5	5	5,500	100	50	50	3.2	0.917	1.073	-0.156	85%
Farmers 6	6	6,000	89.6	44.8	44.8	3.2	1.000	1.005	-0.005	99%

Farmers 7	7	5,000	90	45	45	3.2	0.833	1.008	-0.175	83%
Farmers 8	8	5,000	100	50	50	3.1	0.833	1.059	-0.226	79%
Farmers 9	9	5,500	94.2	47.1	47.1	3.1	0.917	1.022	-0.105	90%
Farmers 10	10	5,000	90.9	45.5	45.5	3.2	0.833	1.014	-0.180	82%
Farmers 11	11	5,500	100	50	50	3.2	0.917	1.073	-0.156	85%
Farmers 12	12	5,000	100	50	50	3.2	0.833	1.073	-0.239	78%
Farmers 13	13	5,500	80	40	40	3	0.917	0.917	0.000	100%
Farmers 14	14	5,500	100	50	50	3.2	0.917	1.073	-0.156	85%
Farmers 15	15	5,000	93.3	46.6	46.6	3.1	0.833	1.016	-0.183	82%

Weight	0.000	0.006	0.000	0.000	0.133
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Unit	1
Output	1.000
Input	1.000

Source: Authors

Results and discussions

- According to the results of the aforementioned investigation, there are significant reserves for growing apple output. On average, productivity may improve by 748.1 kg/dyn, with significant reserves for exceptional farmers to expand apple production. For example, farmer number five's yield is 976 kg/dyn, farmer number seven's yield is 1095 kg/dyn, farmer number eight's yield is 1434 kg/dyn, and farmer number ten's yield is 1133 kg/dyn.
- Even in terms of cost, some farmers have significant reserves for lowering the cost of apple production, particularly those numbered five, seven, eight, nine, and ten. Knowing the internal reserves of agricultural farms aids the farmers of Burimas village, Korça, in scientifically planning apple output and calculating the cost per unit. If the farm has the following quantity of producing components, for example: 92.9,,, , the greatest production possible is 6095 kg/dyn at a minimum cost of 173 lek/kg, whereas the most likely production is 6078 kg/dyn at a most likely cost of 174 lek/kg. The DEA model, on the other hand, aids us in determining the efficiency of each unit (farmer) involved in apple production. Farmers 1 and 13 are operating at 100% DEA efficiency, according to the answer offered during the analysis, whereas other farmers are less efficient.

Conclusion

In the hands of manufacturing company executives, mathematical models have proven to be a strong tool for production planning. We have found efficient units in the utilization of production factors (inputs) in order to maximize output using these models.

The multifactorial model can also be used to do similar assessments for other crops, the agricultural sector, and livestock. Knowing the amounts in the agricultural or livestock economy, the greatest and most likely production for each element in

the planning period under consideration can be estimated using the multifactorial mathematical model described above.

The achieved results provide a solid foundation for developing production budgets (farm budgets in our case) and estimating the expenses of apple production by farmers in Burimas, Korça, and beyond.

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Is the pandemic changing economic policy?

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Abstract

When Covid-19 spread globally in the first months of 2020, many governments, along with the drastic measures of economic and social lockdown, intervened to avoid another great economic recession. The fresh memory of the 2008 financial crisis urged policymakers in the US and EU to use every tool to maintain the economic stability. The rapid response of many governments in support to firms, families, and workers has resulted in highly concerning budget deficits and in extreme balance sheet expansion of central banks especially for ECB and FED.

While the coronavirus is still circulating, multiple lockdowns in reply to subsequent pandemic waves are not a feasible option, faster vaccinating programs and a balanced monetary and fiscal stimulus could help to cope with the economic aftermaths of this pandemic.

This article tries to find which policies can result in a better economic stimulus, especially for those particular sectors mostly hit by this pandemic.

Keywords: policy, lockdown, economic stimulus, recovery.

Introduction

The novel coronavirus pandemic and its containing measures have plunged the global economy into one of the worst recessions of modern times. In reply to this new global crisis, many experts and policymakers across the globe have used their experience gained from the previous crises in repeating the recovery measures taken to overcome the Great Recession of 2008 which, in many aspects, is also compared with the aftermaths of the "Great Depression" of the last century.

According to data released by Eurostat¹, the EU GDP growth rate contracted by 11.2% during the second quarter of 2020, with a peak of 18.8% for the United Kingdom that experienced the largest contraction in its GDP growth rate among the EU. The World Bank also has forecasted that the global economy will shrink by 5.2% in 2020, representing the deepest recession since the Second World War and with the largest fraction of economies experiencing declines in per capita output since 1870². In the US, in just two months after the pandemic took place, more than 20 million workers lost their jobs and according to the *Bureau of Economic Analysis* the U.S. GDP fell by 9.0% in the second quarter of 2020 compared with the previous quarter, or at an annualized rate of -31%, the largest quarterly decline in U.S. GDP recorded over the past 70 years³.

Nevertheless, the main goal of economists in the last case was not simply the analysis of the mechanism that caused the greatest economic, financial and social crisis of the 20th century and its terrible consequences, but, above all, which measures and policies were used to cope with that crisis and how successfully got out of it as the

¹ Eurostat, April 13, 2021.

² World Bank, *Global Economic Prospects*, June 2020.

³ Gross Domestic Product, 2nd Quarter 2020 (Advance Estimate) and Annual Update, Bureau of Economic Analysis, July 30, 2020.

figures of economic and social damage seem to be quite similar between them. Some similarities might also be found in the terminology of the two crises. The Nobel laureate in economics, Milton Friedman, highlighted the role of “contagion of fear” through all the progress and consequences of the crisis of the “Great Depression”. He argued that “panic and bank illiquidity” were central causes of the economic collapse of the Depression (Milton and. Schwartz, 1963).

Yet, the differences are quite clear since this last crisis was not simply caused by a supply side effect, but as a negative shock of demand caused by the global pandemic as a result of lockdown measures to prevent its propagation. The general lockdown of the population severely hampered the economy by reducing the consumption to a minimum due to the inability to move out and consume, while the global economy was previously on a positive economic growth trend. It is precisely this difference in the causes of the formation of these crises that leads to a deeper and more careful analysis regarding the implementation of the old anti-crisis solutions.

With the advent of banking crisis between 2007-2009 (the Great Recession), the monetary policy has become much more active and relaxing through supplying the market with liquidity and rescuing banks and financial markets, followed by fiscal policies of state intervention in public investments and also with massive programs to help maintain employment or unemployment payments, purchase of various debts from central banks, etc. The fresh memory of this crisis urged then policymakers in the U.S. and E.U. to use every tool to maintain the economic stability.

In Europe, policymakers intervened on a massive scale, with the European Central Bank expanding its balance sheet to more than €7 trillion and a €750 billion European recovery fund, called Next Generation EU⁴.

The fiscal and monetary policy response in the United States to the COVID crisis was unprecedented. The Federal Reserve took a number of steps to promote economic and financial stability by reducing interest rates and other actions intended to provide liquidity to financial markets so firms would have access to needed funding acting as “lender of last resort”⁵. The Congress also provided a total of nearly \$5.8 trillion in fiscal support to the U.S. economy — about 28 percent of U.S. GDP⁶.

There is however some debate in the way these mechanisms took place and in the approach used in both cases. During the Great Recession, the Fed initially employed “traditional” policy actions by reducing the federal funds rate near zero and then pursuing non-traditional programs such as credit easing programs and large scale purchasing programs⁷. This approach was guided by the thresholds based on the unemployment rate and inflationary conditions⁸. The pandemic reshaped these policies. In the new economics, fiscal policy replaced monetary policy. Central banks instead played a secondary role and a less prudent approach by financing governmental debts and buying other assets, keeping borrowing costs low, and

⁴ “How the ECB is helping firms and households” by Christine Lagarde, President of the ECB 9/4/ 2020.

<https://www.ecb.europa.eu/press/blog/date/2020/html/ecb.blog200409~3aa2815720.en.html>

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<https://www.euractiv.com/section/economy-jobs/news/von-der-leyen-proposes-e750-billion-stimulus-under-member-states-grip/>

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⁵ The Federal Reserve’s actions in response to COVID-19 can be found on website at <https://www.federalreserve.gov/covid-19.htm>

⁶ Congressional Research Service <https://crsreports.congress.gov>.

⁷ <https://www.federalreservehistory.org/essays/great-recession-of-200709>.

⁸ “Federal Reserve Issues FOMC Statement.” December 12, 2012. <http://www.federalreserve.gov/newsevents/press/monetary/20121212a.htm>

showing less interest to inflation's aftermaths⁹.

The policy response to the COVID-19 crisis thus has resulted in a massive increase in liquid assets held by the public (and banks), high public debts levels and concerning risk of unexpected inflation. As the vaccination campaign is progressing and general lockdowns are no more in force, policymakers around the world are facing crucial two crucial decisions: One decision is whether to open up their economies despite the continued spread of the virus; the other is whether to inject another dose of fiscal and monetary stimulus, risking an unfavourable trade-off between short-term benefits and longer-term vulnerabilities.

2. Recovery and Relapse

In the third quarter of 2020, the U.S. and European economies experienced the beginnings of a recovery with the U.S. economy growing by 33.8 %, (or at an annual rate of 5.0%) regaining the sharp decline in growth in the second quarter (-31.5 %). The Eurozone economy grew more slowly, by 12.4% or at a -7.4% at an annual rate for the same period. The recovery however was weakened by renewed quarantines and business lockdowns in response to a resurgence of infectious cases and the emergence of more contagious variants of the virus that began with the "British" variant and the more virulent "delta" variant subsequently¹⁰.

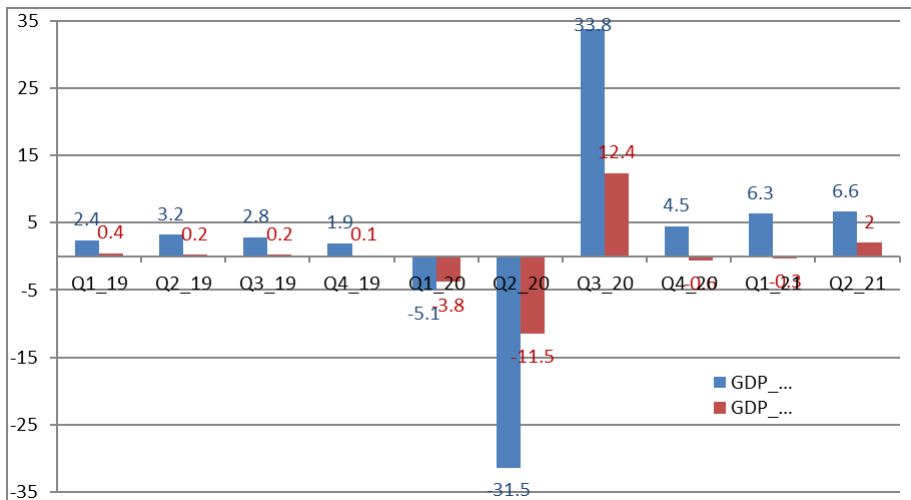


Figure 1. U.S and Eurozone real GDP growth in percent change from previous quarter.

Source: U.S Bureau of Economic Analysis and Eurostat. Created by author.

The global economic recovery during 2021 is seriously compromised by the resurgence of the virus, with the "fifth wave", in Figure 2, mostly hitting the states where the vaccination rates are low¹¹. By early June 2021, the more virulent "Delta" variant

⁹ Matthew Boesler, Bloomberg, "The covid trauma has changed economics—maybe forever", *The Economic Times*, Jul, 2, 2021

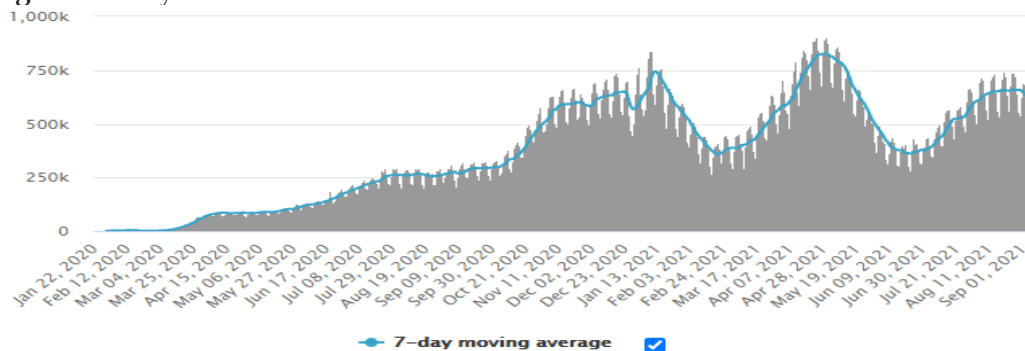
¹⁰ <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>;

<https://www.medicalnewstoday.com/articles/covid-19-in-england-rising-infections-as-delta-variant-takes-hold#Vaccinations-and-Delta>

¹¹ Arielle Dreher, The fifth wave of the coronavirus pandemic has arrived in Washington, *Spokesman*, July 23, 2021.

reportedly was present in many European states and had prompted calls for additional measures by European health officials, including reintroducing travel restrictions¹². In these circumstances, policymakers must everything to avoid a “W”- shaped recession¹³, in which incipient recovery is followed by successive relapses¹⁴.

Figure 2. Daily new coronavirus cases.



Source: Worldometer.

The Figure 2, provided by *Worldometer*¹⁵ presents the daily coronavirus confirmed cases worldwide since the beginning of the first recorded cases in January 2020.

3. Economic Policy Challenges

The policy challenge has been how to implement targeted policies that address short-term issues without creating long- term distortions that can outlast the impact of the virus itself, such as debt accumulation.

Initially, the economic effects of the virus were expected to be short-term supply issues as factory output fell because workers were quarantined to reduce the spread of the virus through social interaction. The drop in economic activity, initially in China, has had international repercussions as firms experienced delays in supplies of intermediate and finished goods through supply chains¹⁶.

Demand shocks unfold as businesses experienced reduced activity and liquidity constraints. While manufacturing firms experienced supply chain shocks, reduced consumer activity through social distancing affected the services sector of the economy. In response, central banks, lowered interest rates and expanded liquidity to financial markets and to firms risking insolvency¹⁷.

Unlike the 2008-2009 financial crisis, reduced demand by consumers, labour market issues, and a reduced level of activity among businesses, rather than risky trading by

<https://www.spokesman.com/stories/2021/jul/23/welcome-to-the-fifth-wave/>.

¹² Gross, Anna, Leila Abboud, and John Burn-Murdoch, Delta Variant Begins to Spread, Threatening EU’s Covid Progress, *Financial Times*, June 21, 2021. <https://www.ft.com/content/d4abbe5e-8650-4a76-9fea-2d3efa2ed52b>

¹³ Forbes. “[Alphabet Soup: Understanding the Shape of a COVID-19 Recession](#).” Accessed Sept.1,2020.

¹⁴ The United States experienced a W-shaped recovery in the early 1980s. From January to July 1980 the U.S. economy experienced the initial recession, then entered recovery for almost a full year before dropping into a second recession in 1981 to 1982.

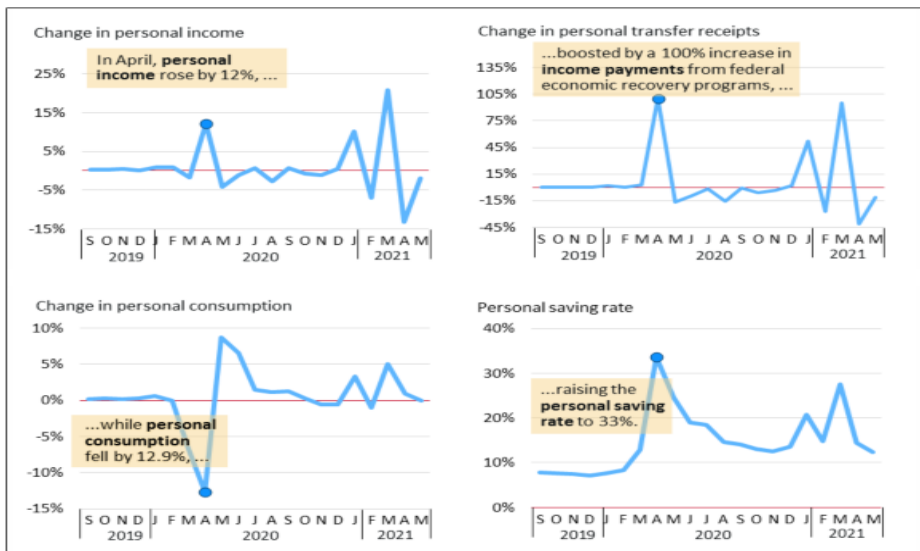
¹⁵ <https://www.worldometers.info/coronavirus/>.

¹⁶ Global Economic Effects of COVID-19, Congressional Research Service <https://crsreports.congress.gov>.

¹⁷ Ibid.

global banks, led to corporate credit issues and potential insolvency.¹⁸ As a result, the focus of government policy expanded from a health crisis to macroeconomic and financial market issues, essentially, aiming to prevent economic growth from contracting sharply by assisting workers and businesses, and accommodating monetary policies to address credit market issues. Nevertheless, the evidence shown in Figure 3, for the U.S.¹⁹, suggest that additional large-scale transfers will simply be saved, implying that additional stimulus would have a low multiplier effect on aggregate demand. Under the current circumstances, the output gap and the unemployment rate are both misleading, because they reflect the effects of the pandemic on different sectors, not a general weakness of demand²⁰.

Figure 3. U.S Personal income, consumption, and savings.



Source: *Personal Income and Outlays, May 2021*, Bureau of Economic Analysis, June 25, 2021. Created by CRS.

Figure 3 shows that with the adoption of fiscal packages to assist households, and consumers, savings have sharply increased as they have faced limited spending opportunities. From this point of view, additional transfers to households will probably be saved making it unlikely to produce much additional demand, and thus to fuel inflationary pressure²¹.

The debt dimension of this pandemic is another concern. Many economists have raised concerns that fiscal deficits financed through borrowing in a low-interest rate environment could substantially increase in the future the debt servicing costs on government budgets²².

According to the IMF, global governments borrowing has increased from 3.9% of

¹⁸ Foroozgar, Rana, "How COVID-19 Became a Corporate Credit Run," *Financial Times*, March 15, 2020.

¹⁹ *Personal Income and Outlays, April 2020*, Bureau of Economic Analysis, May 29, 2020.

²⁰ Daniel Gros, "Fiscal Follies in the COVID Recovery", *Project-Syndicate*, March 5, 2021.

²¹ *Ibid.*

²² Hagaman, Chase, *Fiscal, Monetary, and Economic Challenges of the Post-Pandemic Economy*, The Concord Coalition, February 18, 2021; Edelberg, Wendy, and Louise Sheiner, *The Macroeconomic Implications of Biden's \$1.9 Trillion Fiscal Package*, The Hamilton Project, Brookings Institution, January 28, 2021.

global gross domestic product (GDP) in 2019 to 10.8% in 2020²³ but, it is expected to fall somehow in 2021, and fall more substantially as percentage shares of GDP in 2022 as the economic recovery is projected to take hold. However, the IMF concludes that near-term debt vulnerabilities remain high especially among low-income developing countries²⁴.

On the other hand, it is also clear that one of the biggest social costs generated by this pandemic is high unemployment and the risk of increasing poverty, therefore every government's aid package should also include strategies focusing the unemployed and the most vulnerable social groups.

Governments and policymakers have been mostly focused on domestic recovery actions, but for a strong and lasting recovery in the next years, they must invest in global collective actions to control the virus, avert a vicious cycle of debt through balanced monetary and fiscal stimulus, and with an emphasis on policies that support demand as well as improve productivity.

Conclusions

In the initial phase of the pandemic, many governments adopted measures to contain the spread of the pandemic by locking down social activities, inevitably creating a global economic recession. In response to this unprecedented drop in economic activity, governments used promptly a series of actions of monetary policies aimed at stabilizing financial markets. Subsequently, as governments adopted social distancing measures, policy actions shifted to fiscal measures aimed at sustaining economic growth such as tax cuts and tax deferrals for individuals and businesses, wage and income supplements to individuals, food assistance and unemployment benefits, and other payments to businesses. With businesses shutting down at once, consumption dropped, and households saved a significant share of the income support they received, suggesting that additional large-scale transfers will simply be saved. In the last phase, government policies have shifted to vaccination programs and more relaxing social distancing measures.

Unlike the 2008-2009 financial crisis, reduced demand by consumers, labour market issues, and a reduced level of activity among businesses, rather than risky trading by global banks, led to corporate credit issues and potential insolvency. As a result, the focus of government policy expanded from a health crisis to macroeconomic and financial market issues, essentially, aiming to prevent economic growth from contracting sharply by assisting workers and businesses, and accommodating monetary policies to address credit market issues. The result was that fiscal policy surmounted monetary policy with central banks playing a secondary role and a less prudent inflationary approach by financing governmental debts and buying other assets, keeping borrowing costs low.

The debt dimension is another concern to many economists since the looming fiscal deficits financed through borrowing in a low-interest rate environment could substantially increase the debt servicing costs on government budgets in the next years.

²³ International Monetary Fund, *Fiscal Monitor*, April 2021.

²⁴ Global Financial Stability Report, April 2021.

The policy challenge for most governments in the case of resurgence of the virus will be their ability to deal with already high public debt levels and rising inflationary pressure.

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Inflation, monetary policy and exchange rate in Albanian Economy

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Abstract

Inflation, monetary policy and exchange rate are important instrument in every economy. The Central Bank has a high role in measurement of these instruments. One of the most commonly accepted approaches to identify determinants of the equilibrium real exchange rate stems from the Purchasing Power Parity (PPP) theory first developed by Gustav Cassel (1918). Following the relative PPP viewpoint, the equilibrium real exchange rate tends to remain constant in the long run but misalignments in the real exchange rate are caused when the change in relative prices is different from the degree of fluctuation in the nominal exchange rate. However, economists have tested the PPP theory, pursuing criticisms on the accuracy of this paradigm vis-a-vis the long-run behavior of the real exchange rate. Studies from Froot and Rogoff (1991) and MacDonald (1995) look at it from this perspective. Under continuous scrutiny, both theoretically and empirically, the PPP theory is generally understood to be able to, at best, determine the real exchange equilibrium only in the very long horizon, which typically overcomes relevant timeframes for economic policy and cannot provide an understanding of factors behind short and mid-term deviations from equilibrium.

Keywords: Inflation, monetary policy, exchange rate, Albanian Economy.

Introduction

The performance of the Albanian economy throughout the transition period has pleasantly surprised many people. Starting from a very low base in 1991-92, Albania has quickly moved to high GDP growth and falling inflation, in conjunction with serious efforts towards market reforms.

The exchange rate is a very important economic variable, especially for a small, open economy such as Albania, due to the effect that it may have on the country's competitiveness, trade and current account, inflation, wages, domestic economic activity and bank stability. Thus, assessing the equilibrium exchange rate is an important responsibility of macroeconomic policymakers (Isard, (2007)).

The equilibrium exchange rate is usually used as a benchmark for evaluating whether the actual exchange rate is too strong or too weak. Thus, the equilibrium exchange rate can be defined as the real exchange rate level whereby the economy maintains internal and external balances. Internal balance means that factors of production, such as labour and capital, are being fully utilized, so prices and wages are stable and the economy is running at normal capacity. This implies that the output gap is zero and unemployment is at the non-accelerating inflation rate of unemployment (NAIRU). Internal balance is a necessary but not sufficient condition to ensure that the real exchange rate is at equilibrium. The equilibrium exchange rate is achieved when the rest of the world is in equilibrium, so the external balance can be characterized as a state of stable net foreign assets.

Inflation and monetary policy.

Inflation is a phenomenon that occurs when the general level of prices and costs in the economy increase. The price increase is not necessarily uniform for all products. For measuring the inflation in Albania the Consumer Price Index plays a crucial role. The Consumer price Index is the measuring of the cost of a representative basket of goods and services. The question that rises in this case is: what are the factors that cause the inflation? These are different factors among which are: a. the high level of demand for money (inflation caused by demand) b. inflation caused by supply. It should be noted that even in cases where we are in terms of a balance between supply and demand not necessarily the level of inflation is zero or low. An important role is also played by inflationary expectations. Inflationary expectations are important for the behavior of wages and prices in the economy. Thus if in the future inflation is expected to rise, then employees will increase pressure for the wage increase. What determines the extent or inflationary expectations rate? The answer to this question depends on monetary policy and the trust that individuals have on the Central Bank and the government. The function of monetary policy is the management of the money quantity in the economy and of the interest rates aiming at the general price level stability, economic growth and financial stability. Inflation is often identified as being the primary objective of the monetary policy, by making it the only legal objective of a bigger number of banks. Meanwhile, besides this objective, some countries have included in their laws on the Central Bank objectives like the support to the economic growth or keeping the financial stability.

The primary goal of monetary policy of most central banks is the stability of prices but there are other objectives related to employment, economic growth, financial stability, interest rates and currency exchange rates. High unemployment leads to poverty and absolute decrease production. So employment is desirable. The question is: how high should it be? Should be at such level that would mean zero unemployment? Unemployment should be close but not zero, because a low level of unemployment is of benefit to the economy. Employment target otherwise called "full employment" means an unemployment rate close to but above zero and corresponds to labor's equation between supply and demand. Unemployment rate corresponding to "full employment" is not constant and is currently estimated in the range of 4.5 to 6%. The purpose (or objective) of high economic growth is associated with high levels of employment. When employment is high, companies invest to increase the capital stock because it is more efficient to invest in capital when the workforce has a relatively high cost. This brings greater economic growth. Policies that encourage investment and increase public savings through lower tax are called supply policies and deal precisely with the objective of high economic growth. Financial stability is also an important objective given that the financial system is important for lending to the economy. The interest rates stability is related to financial stability. When interest rates rise too much, they reduce the value of the investment portfolio of various financial institutions and this puts them in trouble, which can cause their bankruptcy. Exchange rate stability has to do with the country's competitiveness in the international market. A depreciation of the local currency against the currencies of other countries brings temporary increased competitiveness of goods and services

produced in the country against foreign goods. On the other hand it gives rise to inflation because imported goods and services become more expensive.

There are a number of ways in which monetary policy can affect the real economy. Four channels that operate in market economies are interest rates, credit ceilings, exchange rate, and inflation expectations. While this list is far from complete, in the case of Albania, other channels such as equity prices or the housing market are less relevant, at least for now. It should also be noted that the effects of these channels can overlap to some extent, as explained more fully below. As noted earlier, interest rates were under the direct control of the Central Bank until August 2000. An important indirect effect of interest rates on inflation may have occurred through high deposit rates and the reduced demand for domestic currency deposits. These deposit rates also helped to maintain or even appreciate the value of the domestic currency, thereby reducing import costs and prices.

2019 was a challenging year for the Albanian economy. Economic activity continued to benefit from rising private consumption and the rapid expansion of tourism. However, the foreign environment proved to be unfavorable, while the decline in electricity production, the gradual termination of investments in major energy projects, and the November earthquake had strong negative effects. As a result, the economic growth of 2019 resulted in the level of 2.2%, down from the level of 4.1% recorded in the previous year.

The shocks we suffered slowed down the growth rate, but did not divert the Albanian economy from the positive development trend. This performance was reflected in the reduction of the unemployment rate, in the increase of employment and wages, as well as in the reduction of the foreign debt and the public debt of the country. In parallel, the main indicators of the health of the banking sector remained at satisfactory levels. The average inflation of 2019 resulted in the level of 1.4%. The performance still below the inflation target, required the maintenance of the stimulative direction of monetary policy during 2019. For this reason, the Bank of Albania kept the key interest rate unchanged at 1.0%, oriented the market on maintaining the easing direction of monetary policy in medium-term horizon, as well as supplied banks with the necessary liquidity.

In response to our monetary policy, financial conditions were stimulating to increase aggregate demand and appropriate for returning inflation to target. The monetary stimulus brought about the reduction of the credit price and stimulated the growth of lending. Under these circumstances, private sector lending experienced a relatively rapid growth and showed a better distribution. Also, the monetary stimulus reduced the cost of debt service for businesses and households, as well as created the premises for a more stable exchange rate.

In addition to supporting price stability, the Bank of Albania has also paid attention to the promotion of financial stability, through the supervision and careful regulation of the banking sector, as well as through the coordination of work with other supervisory authorities of the financial sector. Inflation targeting Since monetary targeting strategy was associated with the problem of a clear link between monetary mass and inflation, many countries began to adopt inflation targeting strategy to achieve stability of the general price level. This regime determines the level of inflation and monetary policy through its instruments intends to guide the economy to converge to this level.

Inflation, Financial stability and banking supervision

When inflation is under control, the informative role of the monetary aggregates increases at the same level that the relative “noises” of the shocks of money speed increase. According to them, this might be a very significant reason why the industrialized countries and several other ones under development did not support the monetary control during the period of the prices stability. The speed change of money circulation might be attributed mostly to the instable request for money which has increased particularly with the advancements and the structural changes of the financial systems

The Albanian banking sector continues to remain financially sound and has shown increasing dynamism. This sector has been profitable during 2019, while its liquidity and capitalization indicators are above our regulatory requirements. Also, resistance testing exercises show that the banking sector exposure to systemic risks is controlled and that the banking sector’s ability to withstand risks is strong.

Below I will briefly list some of the main directions of our work to strengthen banking supervision and to support financial stability.

- First, the Bank of Albania successfully administered the banking sector consolidation process. This process reshaped the domestic banking market, bringing in new and motivated actors, as well as increasing domestic capital.
- Second, the Bank of Albania fulfilled all its obligations under the national plan for the reduction of non-performing loans. Thanks to measures taken over the years, the non-performing loan ratio fell from a maximum of almost 25% in 2014 to 8.4% at the end of 2019.
- Third, the Bank of Albania worked to meet the recommendations of the CoE Committee of Experts on the Evaluation of Measures against Money Laundering and Terrorist Financing (MONEYVAL). In the Moneyval valuation report, financial entities were rated at the level of “substantial” or “substantial” effectiveness.
- Fourth, the Bank of Albania has continued to adopt new regulatory acts of the banking activity or to review them in force, with the aim of further approximation with the directives and regulations of the European Union and with the documents of the Basel Committee.
- Finally, the work to promote sound lending to the economy has been accompanied by careful supervision of the banking system, through full and partial examinations.

Carrying out institutional tasks also means a constant attention to other areas of activity of the Bank of Albania. Here I find it appropriate to emphasize the further development of the emergency intervention function, the promotion of the development of the payment system, the increase of the banknote quality, the administration of the foreign exchange reserve, the improvement of statistics, the support of European integration, and the work to educate the public and improving communication with it.

In addition to fiscal easing measures, the Bank of Albania undertook a comprehensive package of measures to provide the necessary liquidity to the banking system, to boost lending and to control debt service costs. This package includes:

- reduction to 0.5% of the key interest rate and unlimited supply of liquidity to the banking system;

- temporary easing of banking regulations, to enable the temporary postponement of the payment of loan installments to customers in difficulty and the consensual restructuring of loans to customers with solid business prospects, helping business finances and increasing their chances of survival;
- elimination of operating costs of the electronic payment system, in response to the increasing demand for this type of activity;
- increase operational capacity to guarantee the supply of the economy with physical money.

Conclusions

Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used.

- Albania inflation rate for 2020 was **1.62%**, a **0.21% increase** from 2019.
- Albania inflation rate for 2019 was **1.41%**, a **0.62% decline** from 2018.
- Albania inflation rate for 2018 was **2.03%**, a **0.03% decline** from 2017.
- Albania inflation rate for 2017 was **2.06%**, a **2.43% increase** from 2016.

In economic terms, coordinated fiscal, monetary and macroprudential measures have partially mitigated the negative effects of the pandemic. However, the challenges ahead remain serious. In our judgment, the Albanian economy has the premises to successfully withstand this blow. However, this requires that all public actors and private sector operators make the right decisions, in a timely manner and in the most coordinated manner possible.

Coping with the shock is within our means, if each of us will do our best and if we continue to guarantee with priority the monetary and financial stability of the country.

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The importance of learning styles and strategies in foreign language classes

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Abstract

The aim of this study is to highlight the importance of learning styles and learning strategies in classes of foreign language. Teachers are aware that every student has his own style of learning. So, the task of the teacher nowadays is not only to identify the different types of learners, but also finding the right activities that adapt to each style. It is their duty to provide the students with different activities, so they can choose which is most suitable to them. Learning style is naturally acquired and can evolve with experience. Learning styles are different because students are different. There are different types of learners, such as visual and auditory ones. By choosing activities that are most beneficial for each type we help them gain confidence and improve their learning. The role of the teacher is crucial in this process.

Teaching students learning strategies is another important factor for better performance in teaching. Learning strategies are important and teachers need to teach students these strategies. Researchers have shown that the students who do best in lessons are those who use the right learning strategies to successfully complete the various activities proposed to them. Being aware of the strategies that they use is an important factor in this process. Teaching learning strategies make them autonomous also. We must emphasize that the learning strategies acquired by students will serve them to learn throughout their lives.

Keywords: style of learning, visual, auditory, learning strategies, activities.

Introduction

We are all aware that each of us has his own way of learning and we receive information in a different way. In psychology this is called learning styles. Not every situation is perceived equally by everyone. This is challenging for all teachers, especially for foreign language teachers. They have to find tailored activities with different learning styles for each student.

Definitions

** Learning style is the way each student begins to focus on new and challenging information, how he or she handles and remembers it. (Dunn and Dunn 1993)*

** Learning styles are cognitive, affective and psychological behaviors, characteristics of individuals and which serve as a relatively consistent indicator with the way students perceive, interact and respond in a learning environment. (Keefe 1979)*

We must first distinguish between "learning style" and that of "learning strategies", which are a student's voluntary (or involuntary) actions that serve to improve part of his or her own learning or solve a problem throughout the production of a language".

Learning style is naturally acquired and can evolve with experience. Learning styles are different and students are different. Students can be auditory or visual. And depending on that, they have different learning styles. For example, an auditory learner can learn more by hearing and listening. He is willing to extract more information than required. He is reluctant to speak from fear of mistakes. They prefer to deal with only one thing and carry it to the end rather than dealing with several

things at once. They have logic, they are rational. They talk frequently, they prefer spoken directions. They enjoy lectures and discussions. They are in favor of using flashcards to learn new words; read them out loud.

On the other hand, visual students always refer to the images they have in their head to remember. They answer the questions strictly. They are analytical, impulsive and hide insecurity. Their reasoning is built little by little by expressing themselves. Do many tasks at once without always completing any of them. They are intuitive and creative. These type of learners understand information better by using pictures, images, diagrams, and whiteboards. They can easily visualize information, have a good sense of direction and usually like to draw and doodle. Since they think primarily in pictures, they highly enjoy visual stimulation. They tend to grasp the underlying meaning behind body language and facial expressions. On the flip side, they may need to see a person's body language and facial expression to fully understand what they are trying to say. They are usually good at using their intuition to solve problems.

We cannot say that there are good or bad styles. They are in a close relationship and do not exclude each other. For example, listening and speaking require students to be both intuitive and analytical, authoritative and visual at the same time.

Teaching students learning strategies in order to improve in foreign languages.

According to Sylvie Cartier, Assistant Professor in the Department of Psycho pedagogy and Andragogy at the University of Montreal, to learn meaningfully, you must want to and be able to. Some believe that students using logic have the opportunity to learn everything. But the truth is that in our schools this does not always happen. How can we prevent some student learning difficulties? What we should know about learning strategies to help our students learn better? How should we teach these strategies in the classroom?

Objectives

- To highlight the importance of learning styles and strategies in learning a foreign language.
- To use them appropriately.
- To make students aware about their importance.
- To use the right activities with each learning style.
- To teach students the right strategies.

Different attitudes to learning styles

Jean - Pierre Astolfi proposes three reflections.

A – We cannot design the robot portrait of every student

Different styles of learning reflect only one aspect of the complexity of a person. They don't classify individuals in strict categories. So it is impossible for teachers to design activities according to the characteristics of each student. But e.g. during an autonomous job, if we propose to our students a wide range of topic choices, everyone can find a topic that corresponds to them. At the same time, they can develop independence and organize their work. So, everything depends on the way the teachers organize the lesson.

B- The teacher is not neutral

Our way of teaching reflects our way of learning. We often forget that we are ourselves placed somewhere in relation to these styles, that we are not neutral. Jean-Louis GOUZIEN defines two characteristics for each, on the one hand the "*personal learning piloting system*" (S.P.P.M1) and on the other hand the "*personal teaching piloting system*" (S.P.P.M2). It shows that our S.P.P.M1 system greatly influences our S.P.P.M2 system.

So a teacher has to find different ways of teaching in order not to penalize students who have a different learning style from their own. For example, a teacher with a more impulsive style, that favors students who spontaneously answer his or her questions, would need to ask students from time to time to take time to reflect, before answering. The teacher should also be attentive to the students who always remain silent when they have to respond spontaneously.

C- Finding the golden mean.

Two ways of teaching can disturb the student in his learning:

- To propose activities that they cannot do it. In this way he is discouraged.
- To propose activities where they feel comfortable doing it. They do not feel motivated and do not progress.

As a result, teaching should: Not penalize students which have a different learning style from us. Teachers should help students be aware of their preferences but, also their needs. So in this way they can develop those qualities they don't have.

Why we should be interested in learning strategies?

There are three main reasons that justify the importance we should give to learning strategies. Researchers, such as Weinstein (1994), have shown that the students who do best in lessons are those who use the right learning strategies to successfully complete the various activities proposed to them.

Another reason lies in the fact that students need to show their autonomy in learning. Meanwhile, to achieve this level of autonomy, they need to know and use in a good way learning strategies that allow them to acquire the knowledge and competencies on which their studies are based. And finally, we must emphasize that the learning strategies acquired by students will serve them to learn throughout their lives.

How can we help students learn better and more?

The four privileged learning situations in the context of references are reading texts, listening to a presentation or explaining a topic, completing exercises, and problem solving. Different strategies are used in different competencies.

Reading and listening situations.

Reading and listening situations allow the acquisition of declarative knowledge. To acquire this type of knowledge, the student must perform several cognitive processes such as selection, repetition, organization and development. Teachers should guide students with basic reading strategies. Searching for keywords. Or when we read an argumentative text, the student uses the process of repetition, that is to say re-reading the text, repeating the information or copying specific words. These strategies, such as election and repetition, are generally well enough used by the students of elementary and middle school. However, they are less familiar with the strategies related to the processes of development and organization. They deserve to be taught because it is these strategies that allow better acquisition of knowledge in a meaningful and efficient way.

The development process is one that allows students to make connections between knowledge and information learned. Thus, to activate this process at the moment of listening to a presentation, the student can use learning strategies such as those that consist of finding examples that illustrate the information presented or to simplify it to someone in his own words. Thus, during the presentation of the analysis of poetic works, the student may decide to explain to another student what he has understood and remembered from this presentation. To be better organized, the student can choose to build semantic maps, diagrams, graphs, etc.

How to teach learning strategies in class?

Learning strategies are important and teachers need to teach students these strategies. They are good to be taught in a natural and authentic context, that is, within the normal lesson, and by fulfilling the real activities of these lessons. This principle, regarding the contextualization approach of learning, has been raised in the works of Tardif (1992) and Weinstein (1994). These scientists recommend teaching general strategies (that is, learning strategies) in the context of acquiring specific knowledge (such as those that belong to a field of study). The teacher should also encourage the student to reflect on the strategies he or she uses spontaneously. To get there, Bazin and Girerd (1997) propose that students should know the strategies he uses for the learning situation. When they are self-aware they 1) continue to apply some strategies in some situations, 2) adjust the strategies he uses in other situations, 3) use known strategies in other situations 4) explain, (if it is needed) his strategies.

The third idea is that we need to clearly teach learning strategies that the student does not know or does not use in a good way or context. To do this, WEINSTEIN and Hume (1988) propose to use three teaching methods: 1- direct teaching which consists of what is the application strategy and how to use it: 2- cognitive and metacognitive modeling, which its aim is simplifying the reasoning that accompanies planning the accomplishment of a task, to emphasize the importance of controlling the accomplishment of the task and communicating behaviors (Hensler, 1999); and 3-, retroaction-driven practice, which proposes the discussion of possible and impossible features and applications of the strategy.

Conclusions

Teachers always face heterogeneous students in terms of their learning styles. So the teacher has to develop different activities in order not to favor a "type" student. The teacher can help the student discover his "dominant" learning styles and can discuss with his class his methods used. The teacher must adapt to the student by helping him to overcome himself. Therefore every student needs an adapted pedagogy and also the students need to adapt to other pedagogies.

What's important is to understand learning strategies and study tips that can help students in a classroom environment. It is also important for students to adopt learning strategies because they will teach them not only to learn in the school context, but for the rest of their lives, even when their studies are completed. So the work of the teacher does not end only with the teaching of competencies in their fields of study, but also the strategies that allow them to put this knowledge into practice. In doing so, these teachers contribute in increasing their students' learning power and help them become lifelong learners.

As language teachers, we cannot assume that a single method could possibly fit an entire class and fit all the language learners' needs. Instead of choosing a specific teaching method, teachers would do better combine various types of teaching methods to correspond all the learners' needs in class.

As we discussed previously, some learners might need instruction presented more visually, while others might require more auditory, or even other types of leaning styles. As a result, teachers should have adequate knowledge about language learners' style preferences. In this way they can make good use of their teaching strategies.

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Motivation in the learning of foreign languages

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Abstract

During learning a language, a large number of internal and external variables play a role, which interact with one another and thus individualize the learning process to a high degree. In our view, in this context, motivation is a very important factor among learners. Therefore, it deals with a selection of essential aspects of motivation in foreign language learning.

The motivation of Albanian learners of the German language was examined as part of a qualitative study, taking into consideration not only internal personality factors but also the learner's special Albanian environment. First, this article provides an overview of the most important theories and findings in motivational research. Information on the Albanian education system is then presented.

The focus is on the foreign language curriculum in Albanian institution of education. The most important part of the article is devoted to the methodological approach. Here you will find descriptions of the examination methods and the test group as well as explanations of the procedure for data preparation and interpretation. This is followed by the presentation of the evaluation and interpretation of the collected data. Finally, possible consequences of the results of the study for research and didactics are shown.

Keywords: Motivation, learning, foreign languages.

1. Motivation

Motivation is the most varied influencing factor in foreign language learning, which can be controlled both from the outside, i.e., by other people (this is referred to as extrinsic motivation), and from within, i.e., by the person himself (intrinsic motivation).

2. Motivational factors in foreign language teaching

2.1 Definition of terms "motivation" and "motive"

So far, the concept of *motivation* has mainly been researched in the field of psychology. Herber believes that motivation can describe all processes and states that are related to the terms desire, drive, need, longing and interest, among other things. In the meantime, it has been scientifically proven that every organism strives to maintain its vital conditions, which inevitably leads to a certain behavior. Obviously, there are such control mechanisms to maintain the mental equilibrium, because after all, motivated behavior can be determined in individuals even when the biological equilibrium seems to have been established. (see Herber 1976). The aim of foreign language teaching is definitely not to meet biological needs - it is primarily about developing suitable learning motives and helping the learners to be positively willing to learn. In this context it is important to distinguish the concept of "motivation" from that of "motives". The motive is the actual motivation of a person to carry out certain

actions - the motivation arises because of the existence of a motive and can therefore be described as a process of motivational activation. (see Schiefele 1974, pp. 28ff) It must be mentioned here, however, that motive and motivation cannot always be clearly differentiated and separated from one another; they can also influence each other - a certain motivation can evoke another motive and vice versa. Motives and motivation can also differ between people. Even when people are in the same situation, their behavior - and thus also their motive and motivation - is individually different. Schiefele explains this as follows: *"Like motivation, motive is a hypothetical term. It describes relatively permanent psychological dispositions. Motives are developed through social interaction in the person's reference system and form cognitive, affective and value-oriented sub-systems therein. In the process of motivation, motives are activated. They are the motives (causes) of an action and determine what this means for the person. "* (P. 31) In summary, it can be said that motives represent a long-term state, or a specific goal or motive. This should be achieved with the help of motivation - motivation is thus a short-term and more easily changeable state that disappears again when the goal is reached. The following explanations explain what types of motives and motivations exist.

2.2 Motivational theories

The motivational theory relevant for this work is that from a learning theory perspective. According to Herber, the variables environmental stimuli, observable reactions of the organism and unobservable processes in the organism (i.e., drives, motives, attitudes, etc.) lead to a certain behavior of the students. (see Herber 1979) *Persy also cites three factors that determine success in school: cognitive requirements (intelligence), emotional factors (such as exam anxiety) and motivational factors. (see Persy 1990)*

Solmecke's motivational factors include factors outside of school (influence of parents or caregivers), individual factors of the student (attitude, interest, personality) and factors introduced by the teacher or the lesson (teacher personality and behavior). He sees this order as a ranking and emphasizes that the individual factors depend on the extracurricular factors, which in turn form the starting point for the factors introduced by the teacher. (see Solmecke 1976). It is therefore clear that a teacher will at some point encounter certain limits during his motivational work with all students - even if these are different for each learner. The basic types of motivation include the following:

2.2.1 Primary motivation

The primary motivation is the already mentioned striving for the maintenance of vital conditions - the maintenance of the biological balance, so to speak. The primary motivation factors are hunger, thirst, air and light.

2.2.2 Secondary motivation

The secondary motivation forms the counterpart to the biological balance, but on a social level. Through social interaction with other people, individuals satisfy their need to establish an emotional balance - factors for this are recognition or security.

2.2.3 Intrinsic motivation

Intrinsic motivation means that actions are carried out on the basis of self-determined factors - in our case this would mean that a learner acquires the foreign language out of his own inner drive. The main drivers of intrinsic motivation are interest and fun; the action is experienced as a challenge and is carried out for personal satisfaction.

2.2.4 Extrinsic motivation

In contrast to intrinsic motivation, actions of extrinsic motivation are controlled and carried out on the basis of external factors. Extrinsic factors are therefore specified by third parties; in the case of learners, these are the parents, teachers, classmates or other peer groups. The actions serve as a means to an end - as an action of this form, for example, striving for good grades or working in the classroom due to the sympathy of the teacher can be viewed. It is not always clear whether a behavior is based on intrinsic or extrinsic motivation. In principle, however, one can say that intrinsic motivation is seen as the stronger and more permanent and thus represents the ideal. If a student learns and works on the basis of his or her personal interest, this is more likely to be more effective in the long term than if he follows the lesson due to extrinsic factors - especially since the extrinsic factors usually only have a short-term effect (for example, if learners always learn / only shortly before a school work or a test).

3. Motivation in foreign language lessons

In the preceding discussion it was explained what motives are, what motives foreign language learners have and what types of motivation exist. Now we have to ask ourselves which factors influence motivation - especially which of these factors teachers can use to encourage their learners to be willing to learn. As mentioned earlier, the learner's self-interest is the most effective form of motivation and willingness to learn. The beginning of foreign language lessons is usually very pleasant, as the learners are very curious. However, as has already been established, this curiosity quickly fades and motivation also steadily declines over the years of school attendance.

3.1 The teacher as a key figure in learner motivation

According to Solmecke, there are three factors that influence a student's motivation to learn (see Solmecke 1976, p. 15):

- The parents or other equivalent caregivers
- The learner himself (his attitude, interests, needs, personality ...)
- The teacher and his teaching method

In foreign language teaching, i.e., in the central teaching situation, the teacher is the key figure and largely responsible for the motivation and consequently the cooperation of the learners. Whether the learners are active in class or not, however, also depends on other factors, such as their daily condition. Nevertheless, the teacher can motivate the learners and encourage them to participate through their personality and the way they teach, even if this activity is not evaluated equally by every learner and accepted in different ways. Pedagogical scholars have long agreed that the main task of the teacher

is not just to impart specialist knowledge - it depends, above all, on the way in which this is done. The teacher is therefore responsible for what “happens” in the classroom and plays a key role in motivating the learner during the lesson. The American Dean Spitzer, known for “performance measurement”, developed the concept of “super motivation”, which in my opinion can also be applied to foreign language lessons. He is of the opinion that the more motivators the context contains, the more motivating it is (cf. Spitzer, 1990). A summary of his suggestions on motivational elements looks like this:

1. Action: the learners should actively participate in the learning process
2. Fun: the more fun you have with something, the more motivating it is
3. Variety: there is a wide range of different forms of learning recommendable
4. Choice: should be within the aforementioned range of forms of learning the learner also has different choices
5. Social Interaction (social interaction): there should be opportunities for social Interaction are offered (e.g. through group work)
6. Error Tolerance: Making mistakes is inevitable and an important side effect of learning - errors should be commented on, but not be reprimanded
7. Measurement: the individual successes and learning progress should be recorded
8. Feedback: the learning progress should always be commented on – especially the feedback on bugs should be suggestions for improvement contain
9. Challenge: the tasks to be mastered should have a certain amount present a challenge and contain a specific incentive
10. Recognition: the learner’s motivation is increased by praise and recognition from those around him. Apart from the type of teaching, the personality of the teacher plays an important role.

3.2 The importance of lesson design

Just as important as the presence of the teacher in the classroom is the design of the lesson. Since the lessons should above all be motivating, it is essential to plan and prepare them accordingly. In 1980, Roth sees lesson planning as a “structural element of the lesson” and therefore as the basis for the design of the lesson - especially if you want to encourage the learners to learn as well, since learning processes are triggered by well-thought-out planning and preparation. (cf. Roth 1980, p. 51) For Helga and Hubert Teml, too, the lesson structure is the most important element of the lesson. (see Teml 2006, p. 7)

4. German in Albania - some background information

This present study was carried out in Albania with Albanian German learners and teachers. For a better understanding, some essential background information on this research context is given. As a rule, foreign language teaching in Albania begins in elementary school. In basic education, a first foreign language is compulsory and a second foreign language is optional. The languages taught are: English, Italian, French and German. Students start the first foreign language in grade III and continue with it until the end of basic education. If scholars have not learned a foreign language in basic education, they start in lower secondary education (grade VI), with one extra

hour per week to learn faster. In VI-th class a second foreign language is offered as an elective subject. This significant improvement in foreign language teaching has been due to the implementation of educational policies that have consistently underlined the importance of providing a foreign language to students, regardless of their geographical location or social conditions. Foreign language teaching in secondary schools follows the plan and curriculum for secondary schools, vocational schools, foreign language schools and bilingual school sections. The subject programs are based on curricula, which in turn aims to be harmonized with the Common European Framework of Reference for Languages (CEFR). (Language Education Policy Profile 2015 - 2017 Language Policy Education Policy Section / Department of Education Council of Europe Strasbourg www.coe.int/lang).

5. Research methods

Motivation is a complex and broad field of research. It is impossible to cover all previously known aspects of motivation in one study. A restriction is necessary, albeit difficult, because the individual variables are interdependent and only a small selection of factors is considered as a result, interesting and important aspects can be lost.

5.1 study model

Object of the study: The role of the teacher in learners' motivation.

Hypothesis:

- 1- The use of new ways of motivation to learn is increasing
2. Teachers use new techniques to motivate learners.

Instruments: In the study, **two instruments** were used to conduct the measurements, **the semi-structured interview** and the **questionnaire**. The interviews aimed to measure: the effects of teacher evaluation and the methods used by teachers to conduct the assessment.

The surveyed teachers are 37 and the surveyed learners are 100. After the analysis of the data, their interpretation was made. Thus, the hypothesis raised in this paper has been substantiated by the extraction of data. Data were obtained from the study related to the topic. The study is done through:

- Student questionnaire
- Questionnaire for the teacher
- Direct observations

Sampling

The selected learners learn German as a second foreign language at an institution in the city of Tirana, while the teachers were selected on the condition that they teach to the classes of those learners who were selected to complete the questionnaire. After the participants were selected, the purpose of this study was first described and their cooperation was requested. If they did not agree, they could refuse to participate.

Instruments used

In this study, 2 semi-structured interview measuring instruments and a questionnaire were used as measuring instruments to confirm the hypotheses.

Data collection and analysis of data obtained from questionnaires

The data were taken from the realization of the questionnaires and the computer

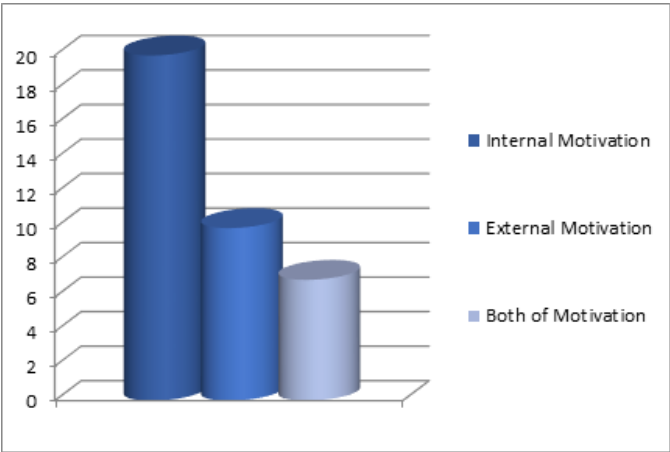
program of excel was used. Thus, after collecting the data reflected with the respective graphs, their interpretation was done. In the computer program of excel after all the data were entered and collected immediately the work for data analysis which in addition to the analysis itself has the interpretation which is closely related to the results obtained from the paper.

Data analysis and interpretation

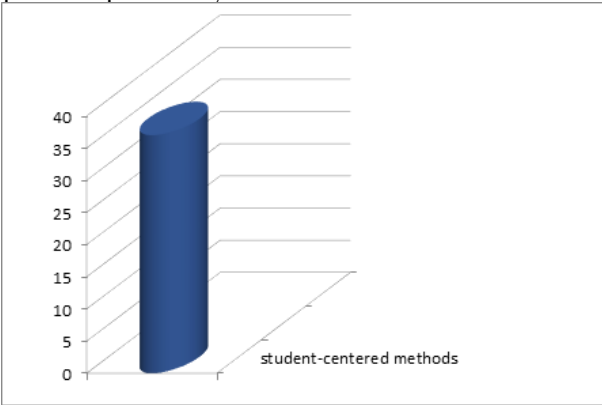
Regarding the first question: What are some of the techniques you use to motivate students? Teachers say that they use many techniques to motivate learners, they respond that they apply new teaching methods, so it is clear that the teacher uses methods other than traditional ones, thus creating a participation and activation of students in the learning process.

Which types of motivation do you use the most: Internal or external motivation, or both?

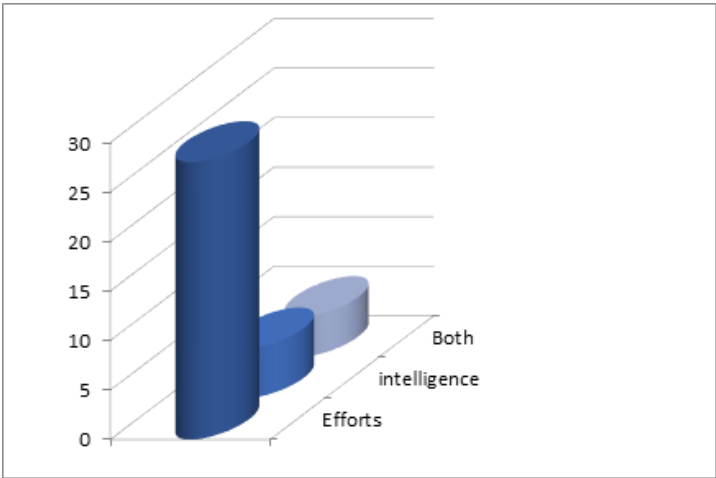
Regarding the first question, 7 teachers answer that they should integrate both types of motivation, both internal and external. Most of the teachers (20) lie in the fact that they should use external motivation and 10 of them think that it should be integrated, more internal motivation.



Question: Do you use student-centered methods? The 37 teachers participating in the survey responded positively.

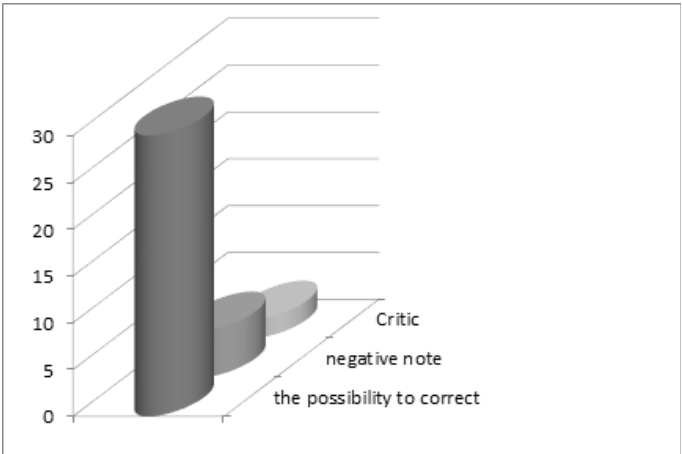


Regarding the way of assessment, 5 teachers value students' intelligence more than their efforts. For 28 teachers the most important element has to do directly with the efforts that the student undertakes to be an active part in the learning process, while the other 4 think that both the student's effort and their intelligence should be evaluated.



When evaluating a student for correct and reasoned answers do you evaluate more?

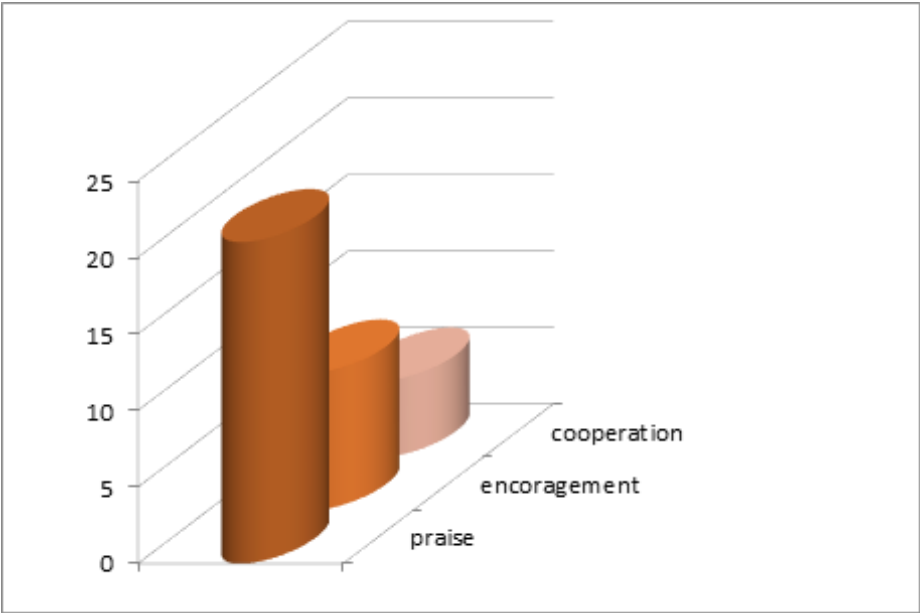
Regarding the question of how teachers react when a student does not achieve the right results, 30 teachers answer that they give learners the opportunity to correct their result. 5 of them say that they evaluate learners with a negative grade, 2 others criticize them thinking that this type of method is effective for students. So, we understand that teachers manage to create a bridge of communication with their learners to help them improve themselves.



Regarding the question of how you encourage your learners, the teachers said that they used different ways of encouragement such as: praise, encouragement, cooperation, reward, etc.

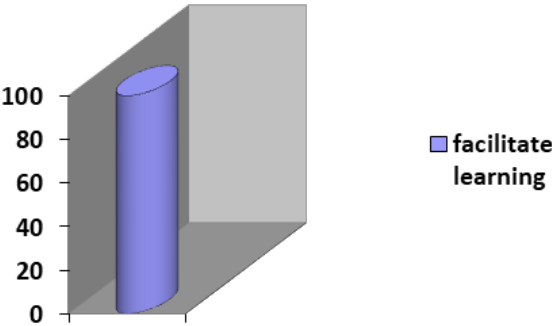
When evaluating a student for correct and reasoned answers, what do you evaluate

more?



Question: Do you think you help facilitate learning?

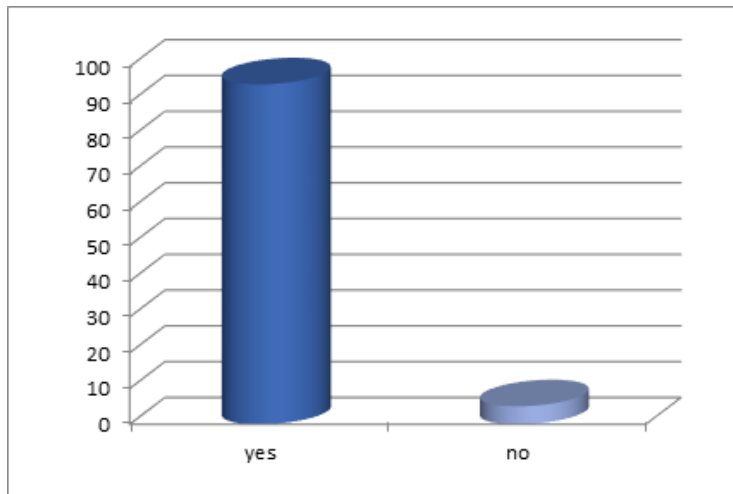
100% of teachers think that they help students to facilitate the lesson. An important role of the teacher is the facilitator; they act in the classroom as guides, instructors and facilitators. Teachers try to make the lesson easier by explaining with concrete examples making connections to the real world.



5.2 Questionnaire with learners:

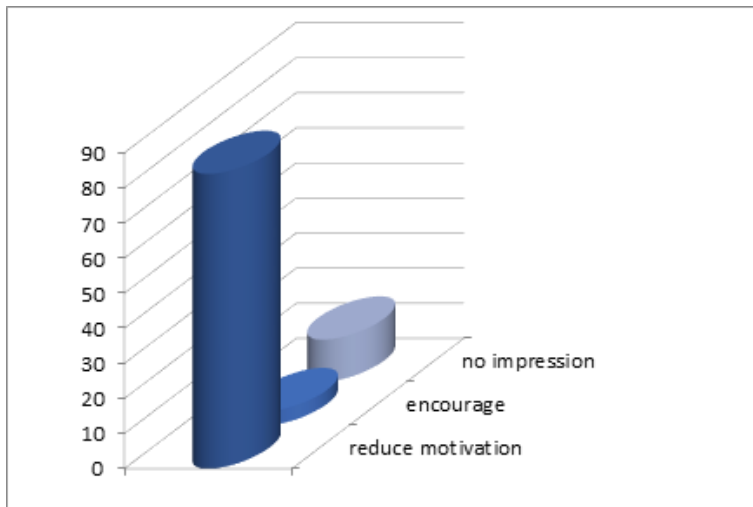
After completing the questionnaire for learners, we reach some very important results as follows. Regarding the first question, if learners go to school willingly, most of them 95% of learners answer that they do not go willingly and only 5% think the opposite. This shows that students feel sufficiently satisfied with the school environment and motivated by the school.

In the second question, in order to understand what happens to students in cases when teachers do not evaluate them correctly, the majority of learners, 84% of them react quite clearly that this fact reduced the desire to learn, so it affects directly in reducing motivation, 4 others respond that it encourages them to learn more and for



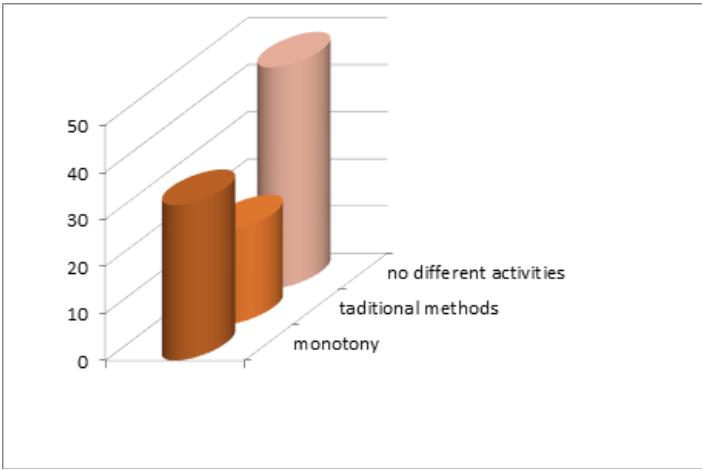
another 12%, it does not create any effect or impression on them.

When you feel that the teacher does not evaluate you correctly, this:



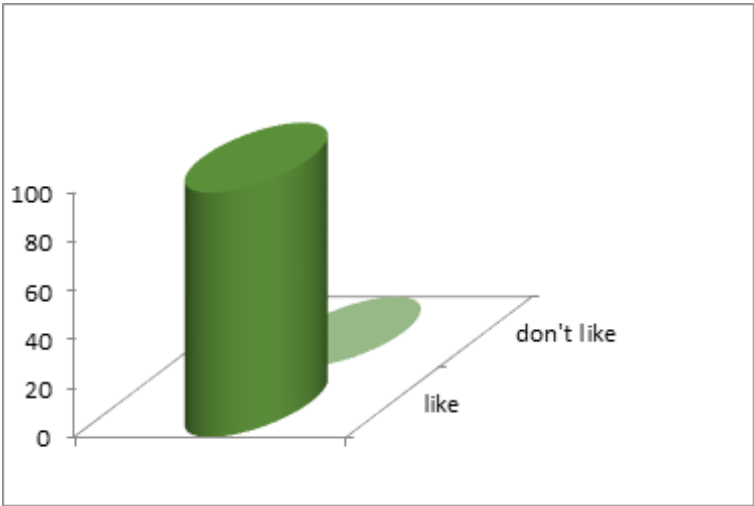
Regarding the third question, to understand the reason why the lesson is not so attractive, 33% think that this is due to the monotony that is created in the classroom, 20% answer because of the traditional methods that the teacher uses and other 47% because they are not organized in different activities during the learning process.

If you think the lesson is not so appealing to you, why is this happening?



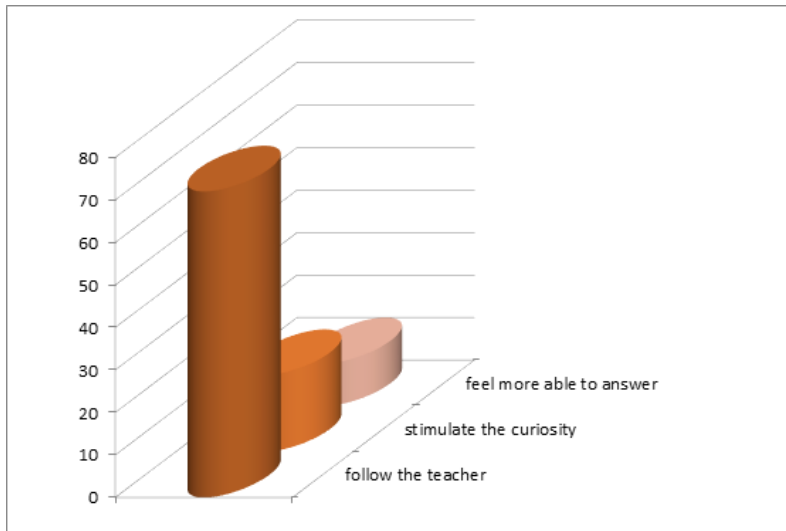
Regarding the fourth question, all students answer unanimously, emphasizing that they feel very good when the teacher praises them because they feel motivated and appreciated for the result achieved. So, we understand that the teacher directly influences them.

Do you like it when the teacher praises you for a good response or behavior?



In cases when the teacher makes the learning process attractive, most of the learners, 72 respond that they follow it willingly, which shows that the teacher has a strong influence on learners. 18 others respond that this stimulated their curiosity to learn even more and 10 other learners feel more able to answer correctly. So, everything is in direct proportion to how the teacher manages to organize the learning process and how attractive he manages to make it.

When the teacher makes the lesson attractive:



Conclusions

When teachers plan their work, they should set high goals and give all learners the opportunity to achieve these goals. Teachers need to know that learners bring to school different experiences, interests and opportunities that affect the way they learn. Teachers need to plan teaching and learning methods so that all learners participate fully and efficiently.

The study concluded that teachers use learners -centered learning to make learners more active. Teachers use more graded assessments than other rewards. Classroom rules are made by teachers and learners. Methods to motivate students during the lesson are moral and material incentives such as grades or expressions as very good or well done.

Teachers ensure students' motivation and concentration:

- Using appropriate teaching methods for different learning styles
- Using many organizational methods such as working group formation or individual work to ensure proper learning needs are met
- By changing the content of the course and its presentation so that it meets the learning needs of learners
- Planning work based on students' cultural interests and experiences
- By planning and monitoring the pace of work so that all learners have the opportunity to learn better and achieve success.

Based on the questionnaires, the factors that make students motivated are:

- Motivation depends on the curiosity and interests of the learner. If he has curiosity, he engages harder and makes more effort to learn. Also, when the lesson arouses curiosity as well as interests, then the student mobilizes and makes more efforts.

- Learning motivation depends on the goals that students set for themselves.
- Learning motivation is also dependent on the importance given to assessments and especially grades in the classroom. It is known that students are valued for the results they achieve in learning. If assessments are given a lot of importance, then students are oriented towards grades and not towards knowledge.
- The role of the teacher is key to motivating students

Learners think that the teacher tries to motivate students through different ways such as: group games, different activities that engage the student in the classroom. The lesson should be interesting and convenient.

Learners think and are allowed to work independently. In order to work independently there must be strong relationship between teacher and learners use is this method because it increases in learners' motivation and interest, to improve their performance Learners say they have a good relationship with the teacher. Teachers and learners are two closely related collaborators, where the leader is the teacher and the learners working through his or her leadership.

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Grotesque as archetype of poetic state in the poetry of Frederik Rreshpa

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Abstract

Frederik Rreshpa, a famous Albanian poet, was born in Shkoder in 1940 and died in 2006. His first literary work, the poetry collection, "Albanian Rhapsody" was published in 1967. He was imprisoned and served 17 years in prison during the communist regime.

After he was released from prison, lived in Tirana and published the volumes "The time has come to die again" - 1994, "Selected lyrics" - 1996, a collection that was announced the best national book of the year, as well the volume of poetry "In solitude " was to be published in 2004.

The focus of the article is on the features of the poetic style specifically on the grotesque as an author's poetic preference that constitutes a special point of view of the author.

The grotesque as an archetype of the poetic state in Rreshpa's poetry is conceived as a way of artistic reflection and as a style of writing. The key function of the metaphor-grotesque is the transfer, within the form of expression, from one context to another context with poetic undertones.

Grotesque is a way of expression or way of presentation in which exaggerated sides are put together in powerful and unexpected contrast, or the most mixed, distorted and isolated forms of reality...

Keywords: Grotesque, poetry, Frederik Rreshpa.

Methodology

Conception of metaphor- grotesque as a hidden and exaggerated situation will be studied in this paper to discern similarity in form or function from original conception. Nonconformism and aesthetic rejection, both used as means to maintain original spirit in Albanian poetry, constitutes conceptional basis and poetic code of Frederik Rreshpa.

Through juxtaposition of poetic situations and means of expression we come to conclusion that Rreshpa's poetic contribution remains a precious and unique value in modern Albanian poetry.

Rreshpa's poetry runs through verses and stanzas encoded in multiple keys, which account for the distinguishing feature of his creative style. Structural approaches are combined with each other to create poetry of space. His style is the splendor and luxury of poetic language.

Grotesque as archetype of poetic expression

Rreshpa's figurative language, rich in poetic images given in grotesque form, conveys and hides a moral truth, an aesthetic and philosophical message, as a particular communication of poetic discourse. Imagery along with the context of Rreshpa's literary discourse represents the analogy between the living things and those lifeless, inseparable bond and unity. The grotesque in Rreshpa's poetry can be viewed in two directions: as a way of conceiving within the system of artistic expression and as a

writing style.

The conciseness of the poem makes the metaphor not to be reduced in the linguistic aspect, without distorting the conceptual side of the object or phenomenon.

In Grotesque as an image, setting of objects, things with similar properties such as (winter, rain, snow, moon, night, garden, marble) produce aesthetic, electrifying atmosphere and artistic landscape. In Rreshpja's poetry, as it will be analyzed below by illustrating with real poetic details, we perceive the moves within the structure of expression, from one context to another, passing in a sudden and incredible way. Grotesque, as a poetic style, serves the poet's imagination to bring new messages to the poetic discourse creating aesthetic prompting and new human feelings. It further aims to convince the reader of an argument by absorbing it aesthetically. The use of grotesque is elaborated and operates in forbidden spaces. Creative freedom serves not to suppress censorship; on the other hand, moral-political and philosophical censorship limits the abuse of freedom. The poet, Rreshpja, seeks ideological freedom as he needs to create the unity of values between the spaces that exists in the correlation of matter-consciousness.

The poet believed that "through the paths of rotten trees / cunning kings fell from the thrones" but life is a great arena of war and triumphs that in "Oh, my field of Korab (area)! Free horizon, boundless sadness!"¹ The brave man was carried down by the streams / the brave was carried up by the song." Under conditions of ideological restriction to poetic freedom we would have a relative introduction of poetic values. Poetic creativity played an important role to oppose the absurd and to face dictatorship by using allegory, ellipsis, allusion, subtext creating a system of literary imagery.

In the book "The time has come to die again" (1994) by Frederik Rreshpja, we have an arsenal of examples making up the grotesque system of the poet's biography. The poet has consciously multiplied his sufferings. In the poem "Forever" the poet reveals to us through a brilliant metaphor constructed as a system of other figures of rhetoric, the idea of eternity. The short poem opens with the exclamation erupting in the middle of the metaphor like a colorful firecracker in a starry evening: I was the sadness of the world..."O dusk air, enfold us / the time has come to die again, /... But I will come back again in every season I want/ I have been the sadness of the world..." The social context that stimulated the poet constitutes a grotesque gray relief with investigators, guards, communists, spies and loneliness like darkness and nightmare. The poet's sadness is hard to trace. The sad life of the poet is an unusual metaphor. The poet's happy nights have been limited, as they "knock like bells on the branches of memory". The metaphor in the poem "The lunar rain" has an amazing architecture.

The simple simile of "poplars like black monks" leaves, makes room for the conception of the concrete with the abstract "blue wave mermaid, / tears flowing on the sleeping face of the legend", or where: "concealed behind the trees somewhere eavesdrops, / the old killer "sadness" in synchrony with a figurative parallelism building the grotesque in the metaphorical system in order to give this romantic nocturne full of colors and sparkles

The metaphors in Rreshpja's poetry is understood by those who have good reading skills due to deep artistic refinement, natural and sudden poetic spirit, as a sign of modernity after the 90s.

¹ Rreshpja, Frederik: Seeking Ithaka. Poem. Prince, Tiranë 2016, p. 126.

..... "An autumn comes with no migration of birds!

May a god come, put his hand on the seasons! "²

Unlike the metaphorical life in general, as articulation of everyday life found in many poets, in Rreshpja we find the splendor that appears as a divine light in the world of feelings.

"The sadness of the snow falls from the trees / the valley with the moon painted / and the deer of the wind wail in pain / with the icy horns broken ...

"This fall passed away/ another day went by..."

The universality of sense, space and time, the concrete and the abstract, the beautiful and the ugly, the tragic and absurd action, are given in four verses. Four verses include an aesthetic information system: fallen trees, sad snow, valley with moon painted, wind deer, their pain, grief, broken horns, icy horns; grotesque style or pattern. Modern poetry with subtlety and conciseness, where little is written and much is said.

The poet's trend after the 90s is to create such a metaphor freed from the simple message, from the ideology as an arranged urge, towards a new explosion as a natural conception, as a need for aesthetic communication, as a poet who approaches the human world to say in a grotesque way, that of the unexpressed, the unseen, the unknown, towards the modernity of Albanian poetry.

II - Aesthetic rejection as a personal attitude of the poet

Rejection relies on persuasion and persuasion on argument, because the poet has been nailed to the triangle: imposition-acceptance-rejection. This refusal for the poet was a constant update in joy, in sorrow, in love. Aesthetic refusal is achieved by literary means and in particular, the grotesque. Rejection falls into the category of negative aesthetics, because it relies on the denial, the negation of those categories that elevate man's dignity, his loneliness.

The poet as a social being was forced by socio-aesthetic factors which act on the creative consciousness and realize pacts for reflective undertakings of life specifically: I am a gypsy of rains and storms/... "My fate as a sword follows me everywhere."³ The grotesque of the poet's "duralumin" fate, which currently travels sadly through the poetic Iliad he has built. "Roses die at dusk... but loneliness awaits me at the gate" loneliness for the poet was worse than death itself "The moon torn with the teeth of loneliness/ / Screams like a wild at the gate / the star of my fortune cried in the window.... "⁴

In the poem "Rally for Enver Hoxha" the author anticipates as an oracle the future of his Republic. Crowds of servile and ignorant people will give rise to despotic leaders. "But there will come a day when his bronze / crowd will cruelly tear it to pieces. / And, will carve for the curse / the bronze of a new dictator ".... on this land that survived through war and sacrifice over the centuries. Democracy according to the poet appeared too late. "... You call me / but your call came to me too late! ...throw two handfuls of night/ on my disobedient head" ...

² Po aty, p 129

³ Po aty, p131.

⁴ Po aty, p 157.

The poetic subject lies in grotesque aesthetic areas, in the border between life and death, laughing and having fun with death as if it were a hobby. The few peaceful days of the poet are haunted as in a dream. "The sparks of dreams woke me up / the world hides under rain, turns into the spirit of water / what makes you sparkle so far away?" It is a fantastic poetic imagery like graceful rejection. The moon for the poet appears as a symbol of disloyalty. "Ah, the moon that killed me / there under the twilight tree!"

Rreshpja brought new poetic conceptions when literature was controlled by the communist state. His strong character refused to channel his creative energy into ideological prefabrication.

"The black charioteer through time / lashes the fall with a whip" The poet had crossed ideological limits and had fully gone into the heavenly realm of poetry. "A mother statue is hidden in every stone."

He elevated poetry to high tones, to extremes, to the epic of simple things that are in front of us and we do not conceive them as such. He managed to reveal the properties of being and natural phenomena from the unbelievable and beyond the ordinary. Rreshpja's grotesque-metaphor arises as the spark of a sacred moment of creative power that can be called poetic snapshot of the world.

"I am sad / your roses remained in my hands like wounds."

His ideas full of equivocations and ambiguities that brought modern spirit and brilliant lyricism were mysterious for the time: "I hear the wind blowing through my words / which quickly turned green". Intense aesthetic emotional experience at the highest rate, images being transmitted and transformed from the concrete to the abstract are presented through these verses.

"I myself sorrow over my destiny...", and later he claims that "... I explain to the birds/ that I am a man with no nest"

"The moon above the river draws /... The roses of dead trees"

Death as a symbol of aesthetic rejection

Death is a symbol of aesthetic refusal, but it is active, an active evil, as people say: evil is made up of forty feet. For the author the inanimate things walk "A dead oak tree walks through the forest", the dead also work for the unfortunate author "stone by stone pile is growing"

Even the white snow glinting on the ground for the author it looks like shroud "for a grand dead". The grotesque is concerned with the infinity of feeling like a sad soul vibrating and gazing from an unimaginable position, from the pitfall of the dark of death. Happiness for the poet was something that does not exist when he claims that "breakfast dies in his hands".

Sometimes the author relies on imagery of religious origin "the doors of ghosts open and the Illyrian gods come out /... and the roses shut in their grief". Communication with dead mother, as the poet's only life hope, is given through a grotesque prosopopoeia and in biblical rhetoric is addressed: "My lady, how will I manage without you in this world /... A few things you have to keep in mind / now you are gone!"

Shocking poetic situations, from the simple to the unimaginable, he asks for the help of the dead, in which world is the poet?

In that world, along with the mother where he just tells her to take care of him, or in this world where he still seeks help from the dead mother by giving her immortality, eternity!

A grotesque lies between dream and reality, transcendent and infinite. The poet lives with his grief, as the refusal of this world. Therefore, the moment that he regains his freedom exactly when his handcuffs are removed, he states his refusal "the time has come for me to die again", because even later, until the end of his life, sadness followed the poet "grief is there, at the gate."

In the verse "The wind sways the sorrow of the flowers", the author creates the configuration from the shadow, from nothing, from the echo, that "the real creator does not utter the noise itself, the crack, but its echo, its cause"²⁰

Another aspect of the grotesque in Reshpa's poetry is the unfinished, the eternal that "if the future and the past are infinite, we will not really have a time"

The two pillars on which the grotesque is supported are loneliness as a result of the context of the author's life and pain because of the misfortunes that have accompanied him all over the life. These clearly appear in the poet's immensity and everyday life. The verses obtained are aesthetic synthesis of high validity.

Poetic leaps from the ordinary to the extraordinary communicate as a space of mythical dimensions, where the author wants to be "a small child who has been crying for thousands of years, and the agony for the poet travels on the black horse of sorrow."

"Reshpa's art is sanctifying: from the examples of severe hatred are drawn lessons of love, from the rubbish of disappointments are raised noble, new illusions up to heaven"

The researcher V. Grace brings arguments from the evaluations on Reshpa's poetry: "Hans Joachim Lankester: "... Frederik Reshpa's work is poetry of high quality, European caliber "Robert Elsie: "... since his youth Reshpa has been a shocking poet "Henri Izrael, American publisher: "... It is a striking poetry, with a mastery that we Americans lack", Ivanovo, Russian critic: "We have Pushkin, Yesenin and Albanians should be proud to have such a poet." Leo de Rua, French critic: "I was shocked by this man who contains a Balkan genius, which is the birthplace of art," Ismail Kadare: "Frederik Reshpa is one of the best poets in Albania".

Conclusions

Through the confrontation of poetic situations and means of expression we reach the conclusion that the poetic contribution of the Albanian writer, Frederik Reshpa, remains a valuable and unique value in modern Albanian literature. Time poured out on Him, in all its ferocity, but he succeeded and deserved immortality, like the meteor that fades leaving behind the bright continuum, the poetic splendor.

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Independent institutions and stability

Kejt Gjermeni

Abstract

Establishing democratic systems is achieved by creating stable and independent institutions. Implementing the rule of law forces all public bodies to obey the rules put forth. Stable societies are possible only by following and respecting laws.

Stability is one of the main criteria to having the basic structure produce time resisting principles for the political system with the correct rules. This is realized through preparing, instructing, and cultivating young citizens with this set of orders.

Continuously conflict-ridden societies produce difficult individuals and have difficulties enforcing the laws.

Promoting the rule of law and sustainable functioning democratic institutions is beneficial for the community and is praised as such.

Keywords: Stability; principles of justice; independence; original position.

Introduction

Independent institutions play a key role in establishing the rule of law and are an essential component of a functioning democracy. The Constitution of the Republic of Albania states in his preamble: "...with the determination to build a state of law, democratic and social, to guarantee fundamental human rights and freedoms."

The impartiality of institutions is mainly realized through the dictation and implementation of laws. So, we basically start with the principle that laws exist and should be implemented by law enforcement institutions, including the judicial system. The principle of the rule of law obligates all public authorities to exercise their powers only within the framework and in accordance with constitutional norms. The organization and functioning of the bodies provided in the Constitution is an issue of fundamental importance for rule of law itself.

If the institutions, whether they serve as a fundamental pillar of the state and which are provided for in the Constitution, or even those that, although not provided by the Constitution, are not subject to the principle of constitutionality and legality, then the foundation of the functioning of the state is not in place.¹

In an effort to reform our justice system, the package of justice reform laws² has been approved to not only create an independent judicial system, but also ensures the professionalism and efficacy of magistrates, judges, and prosecutors in the fight against corruption.

In this context, a number of institutions have been set up, such as the Judicial Appointments Council (JAC), which will play a key role in appointing people to the justice system, as well as assess the fulfilment of legal and professional conditions and criteria, and the moral values of the candidates which will be appointment as members of the Constitutional Court of the Republic of Albania.

There is also the High Council of the Judiciary (HJC), which is responsible for ensuring the independence, well-being, and accountability of the judiciary system. The HJC

appoints judges of all levels, except those of the constitutional court, and decides on disciplinary measures, including dismissal of judges of all levels but excluding members of the constitutional court.

In the above vetting institutions, they strive to ensure that the professionalism and integrity of the employees of the justice system are uncompromised to guarantee independent and fair judicial proceedings that removes all magistrates who do not justify their property assets, are tied to crime or corruption, or simply do not have the necessary professional skills for the role.

At the same time, each vetting procedure is subject to the control of his property and related persons is subject to the figure control, verification of inappropriate contacts with persons involved in organized crime and is subject to the control of professional skills.

1. The sustainability of principles

An independent justice system set up on the basis of a series of controls and filters ensures, to some extent, justice for its citizens. Its ensured sustainability – or stability – allows citizens to focus on their continued missions in life undisrupted. Rawls notes the importance of stability in *A Theory of Justice*: “By setting themselves in roughly the same circumstances, people define in the original position a stable system of principles of justice.”³

Stability is in fact only a criterion for having a basic structure in place and it can be observed whether citizens manage to define the basic principles of justice. More evidently, in events when a society is in constant conflict, it is difficult for citizens to reach an agreement, and then it becomes a question of which principles of justice are expected to be followed by them.

In the fifth part of *Justice as Fairness*, Rawls analyses the possibility of the existence of a society with proper order, realizing that democracy is the main threat for a society and is not sustainable since it offers great freedom to citizens and hinges on the reasonable pluralism of ideas. But the demands he makes on his theory are that it should be in line with human nature and the demand for real political institutions. Rawls states: “Democratic political system is a reasonable scale fair and achievable, so it deserves to be defended.”⁴

According to Rawls, when the political concept of justice is fulfilled in the main institutions, citizens who grow up within this social background manage to create a strong sense of justice.

Stability issues have to do with the long-term sustainability of these principles in the political system with the right order, which is realized for young citizens going through a particular type of education. The idea stemming from this is that in the belief that justice is synonymous with fairness, then educators and families instilling in young citizens with this belief is a fundamental role in society, and not secondary: The state interest in educating children stems from their future role as citizens and, consequently, from such essential things as enabling them to understand public culture and to participate in its institutions, to be independent and to decide for themselves about life, as members of society throughout life, as it stems from their

³ Rawls, John. *A theory of Justice*, Harvard University Press, Cambridge, Massachusetts, 1971, pg.398.

⁴ Rawls, John. *Justice as fairness/restatement*, Dita 2000 Publication, Tiranë 2007, pg.78.

education with democratic political virtues.⁵

So, the political stability of the system is directly related to this factor. Likewise, if we have vague or malicious political leadership, can this structure and the work done be destroyed immediately? This is a question that remains open for discussion, to which Rawls offers no alternative.

The political concept of justice, in order to be sustainable in a society, must create its own support among citizens through education. Here is how Rawls describes his idea of stability:

Citizens accept the existing institutions as rights and having the social position they have and knowing its perspective in the future and don't want to violate them, nor to discuss from the beginning the conditions of social cooperation."⁶

It is understood that this interaction would be questioned and is intended to be disrupted, damaging the stability, but only if people within the community only thought of self-interest or the interest of those closest to them. This, in turn, would create constant protests and a crisis in the political system. According to Rawls, a society with proper order is likely to be most favored and less satisfied, as they want to have more benefits, but the principles of justice as impartiality do not allow them. So, they always try to review the terms of redistribution of the established principles, as it is assumed that taxes could be reduced if there were no social policies and redistribution, so the favored would earn more.

Rawls promotes a kind of consistency in the political concept and principles of justice when he says: "Political conception that can guarantee stability should counterbalance other reasons to eliminate or extinguish the desire to review or violate existing conditions of cooperation."⁷

The most inclined to question the principles of justice are those who are most favored; those who due to talent, ability, or wealth are more often in positions of political authority and power, and thus the risk here for judicial corruption increases and fairness decreases because they are the people who have the opportunity to build rules for their own interests and in violation of the principles of justice, thus turning the political system into an oligarchic system.⁸

Another element that can make these principles unstable is insecurity. Rawls uses the notion of *reason for stability* when stating that: "Stability is obtained firstly by the applicability of the principles of justice that guarantee the citizens their basic interests and secondly, by the motivation of the parties to guarantee first of all these interests." If everyone's basic interests are satisfied, then we have stability. Thus, stability is a consequence of the construction of the original position where the principles of justice emerge and are formulated. We can call this *reason for stability*."⁹ Some of the indicators of this stability that Rawls suggests are the consistency of the basic structure and its institutions over time, the frequent non-change frequently of the constitutional frameworks, etc.

A natural requirement to have stability in the society with the right order would be the basic institutions promoting the cooperation of the political life of its citizens, common sense, and tolerance. This would ensure mutual respect among citizens.

⁵ Rawls, John. Justice as fairness/ restatement, Dita 2000 Publication, Tiranë 2007, pg.264.

⁶ Rawls, John. Justice as fairness/ restatement, Dita 2000 Publication, Tiranë 2007, pg.213.

⁷ Rawls, John. Justice as fairness/ restatement, Dita 2000 Publication, Tiranë 2007, pg.214.

⁸ Understood as the rule of a group of people and that has nothing to do with democracy.

⁹ Rawls, John. Justice as fairness/ restatement, Dita 2000 Publication, Tiranë 2007, pg. 191.

But here arises another question about Rawls' theories about justice as impartiality, which he puts as:

Do people who grow up in a society with the right order according to the two principles of justice, acquire such a strong and efficient sense of justice that they constantly respect the right arrangements and not tend to act differently, pushed from envy and malice, or from the will to rule, or from the tendency to submit?¹⁰

The psychological factor deserves special attention, especially when we are dealing not with ordinary citizens, but with leaders who hold such phenomena. They really constitute the point of collapse of this whole theoretical structure because they undermine the necessary social unity required by a constitutional political system and the balance of interests, as they deviate more from self-interests. Rawls tells us that society should not focus too much on the psychological "profiles" of citizens. He sees these psychological differences, especially when they are related to envy and malice, as a factor that can interrupt not only the procedures of concretizing justice as impartiality, but that can lead to the collapse of social cooperation as a key factor for democracy. In terms of stability, it becomes inevitable to consider this possibility and the influence of citizens with these inclinations.

For justice to remain impartial, it is important to understand which forces can guarantee or undermine the stability of the application of these principles. The main claim is that institutions, by promoting allegiance to these principles of justice through reason and knowledge and proper education, are likely to educate a majority of citizens who do not fall prey to the temptation to act corruptly, unfair.

Those who grow up under right institutions, as required by justice and impartiality, are educated...to resist the tendency for injustice. Citizens are already accustomed to acting voluntarily with justice towards one another in the course of time. Stability is guaranteed by their sufficient motivation, which is educated by the right institutions.¹¹ Educating employees in a certain way that implements a fair institutional spirit can have positive side effects and reduce corruption, which remains a concern for our society. But of course, it would be naive to think that only proper education would reduce this phenomenon of injustice.

Rawls considers many factors that need to be put in place at the same time to minimize injustices such as corruption while building a just society:

The more they value the political society in which they live, as good citizens, both for themselves and for the community, the less they tend to special attitudes of envy, malice, willingness to rule, or temptation to deprive others of justice.¹²

So, Rawls concludes that the true start of a society is when its citizens fulfil their obligations and rights in a sustainable manner, according to the rules in force that do not change whenever the ruling parties change.

2. Principles of justice

John Rawls states that there is no agreement on how basic social institutions can be regulated, other than the fact that they must be adapted to the freedom and equality

¹⁰ Rawls, John. *Justice as fairness/ restatement*, Dita 2000 Publication, Tiranë 2007, pg. 302.

¹¹ Rawls, John. *Justice as fairness/ restatement*, Dita 2000 Publication, Tiranë 2007, pg. 308.

¹² Rawls, John. *A theory of Justice*, Harvard University Press, Cambridge, Massachusetts, 1971, pg. 503.

of citizens as individuals. Rawls calls institutions impartial when they apply both principles of justice in their work and execution. Here is how he describes this request: The principle of justice requires that everyone act according to the rules of the institutions, when these institutions fulfill by themselves two conditions: *first*, that these institutions be fair (impartial), that they respond to the two principles of justice, *secondly*, to support the advantages of every person who uses the opportunities offered by them to develop his interests.¹³

Indeed, the second condition seems a bit impossible, as it points out that these institutions can also meet the personal interests of citizens. But since these interests can be very different from one person to another, then the question arises: how can these institutions help to recognize these different interests? Rawls explains this with the wide range of freedoms that these impartial institutions must offer:

Justice as fairness, considers as a primary object of political justice the basic structure of society, its main political and social institutions and the way they are coordinated in a unified system of cooperation.¹⁴

These institutions are extremely important to Rawls because they have a significant impact on shaping the material conditions of citizens' freedom. Impartial institutions guarantee the regulation of extreme social inequalities and create a stable basis for the redistribution of justice and the return of excluded citizens from society in a dignified state and able to choose for themselves.

One weakness that drives criticism of Rawls at this point is the small role he leaves the institutions in their original position.¹⁵ In this situation, it is accepted that even strong contradictions in the meaning of the law can be presented secretly. The principles of justice are chosen behind a "veil of ignorance" (TJ 12/11). This veil of ignorance deprives the parties of all knowledge of particular facts about themselves, about one another, and even about their society and its history.

While Rawls' understanding of the agreement further analyses the relationship between individuals, this right is also partially expressed by institutions. First, the contract deals with the principles of justice which must be found and put to work for the basic structure of the institutions. Second, there is a part where citizens have to agree on the rules of verification, or the criteria if these principles are valid for the society where they are used and if they meet an improvement in the social conditions of the citizens of that country.

Rawls does not seem to pay much attention to the ways in which these institutions guarantee contracts between individuals, and the ways in which these institutions are valued by individuals for facilitating or obstructing the enforceability of individual contracts for justice. For example, how can we support an institution like marriage in its original state?

The definition given by the Albanian Family Code for marriage is that it is considered a legal cohabitation, based on the moral and legal equality of spouses, on the feelings

¹³ Rawls, John. *A theory of Justice*, Harvard University Press, Cambridge, Massachusetts, 1971, pg. 117.

¹⁴ Rawls, John. *Justice as fairness/ restatement*, Dita 2000 Publication, Tiranë 2007, pg. 84.

¹⁵ *original position* is an initial agreement situation wherein the parties are without information that enables them to tailor principles of justice favorable to their personal circumstances. Among the essential features of the original position is that no one knows his or her place in society, class position or social status, nor does any one know his or her race or gender, fortune in the distribution of natural assets and abilities, level of intelligence, strength, education, and the like. Rawls even assumes that the parties do not know their values or "conceptions of the good," their religious or philosophical convictions, or their special psychological propensities.

of love, respect, and mutual understanding, as the basis of family unity.¹⁶It also stipulates that the mutual rights and obligations of spouses towards their children.¹⁷ Rawls himself reinforces the idea of the importance of the impartiality of institutions: The successful establishment and continuity of democratic institutions, right to a reasonable degree over a long period of time, perhaps gradually being reformed being gradually reformed from one generation to the other, is undoubtedly an important social good and is valued as such. "This is evident in the fact that individuals of a democratic people regard it as one of the most important achievements in their history."¹⁸

Conclusions

Society within the right order has stability as its citizens are generally satisfied with the circumstances in which they live. In other words, the stability of a society begins where its citizens fulfil their obligations and rights in a sustainable manner, but only when the rules in force do not change whenever the ruling parties change.

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¹⁶ Article 1 Albanian Family Code.

¹⁷ See also Article 50 and 53 Albanian Family Code.

¹⁸ Rawls, John. *Justice as fairness/ restatement*, Dita 2000 Publication, Tiranë 2007, pg..332.

The impact of organization in religious freedom

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Abstract

The purpose of this paper is to search for the meaning, interpretation by religious organizations of freedom of religion and importance of the work that goes on in securing them. It is argued that after the emergence of society from the Middle Ages, where religion had a privileged role, humanist, rational and secular focused attention on man as an individual and social being. Freedom also took the form of constitutional legitimacy. Secularism had as its object the separation of religion from the state. This, directly or indirectly, led to the narrowing of religious freedom. Sociologists of the middle of the last century, seeing that religion was an important factor in society, submitted the need to re-evaluate it as a social structure. In parallel with this, due to the horrors of the two World Wars, conventions were drafted for the protection of civil rights and freedoms. It is argued that, in contrast to the developments of the time, religious freedom in Albania became narrower, until with the constitution of 1976, religion was outlawed. Religious freedom lies at the heart of the process of revitalizing religion. It is argued that issues of faith, freedom of religion remain debatable, in a pluralistic society. Freedom of religion would remain an abstract notion if it were not manifested in the life of the organization. The various aspects of the interpretation of freedom are analyzed at the individual, social and organizational levels. The benefits of religious freedom are addressed according to Albanian legislation and international conventions. It also contains the freedom to change religion or belief. The study was organized in the Region of Tirana. The special demographic parameters of the Region enable the achievement in generalizations at the national level. Believers generally state that attitudes are based on their beliefs. This is a good thing to hear. It has to do with their privacy and freedom of choice, too. On the other hand, Religion is known to be a conservative force. The latent factor plays an important role in human behavior. There were some young people who went to fight for ISIS. A tragic, unprecedented event occurred in a family of believers, which is a case study. Such cases show that there is a difference between what is said, in any of their assertions and what actually happens in their free thought. This obliges the religious organization, as well as other factors and actors, to work with professionalism, so that the freedom of religion is realistically concretized in every case.

Keywords: Freedom of religion; Human rights; religious communities, social aspect, theological aspect, legal aspect.

Introduction

Currently Albanian society represents a cultural pluralism, beliefs and consequently, different approaches to the life of the religious organization and freedom of choice. Diversity poses challenges to preserving the colorful nature of society and religious life. Since the beginning of the democratic process, after 1990, Albania has been a country widely engaged in matters of religion. Religion regained its denied positions during the totalitarian regime and began working to establish religious institutions. Freedom of religion is a principle of democratic citizenship. It is conceived according to contemporary democratic standards. Freedom takes on social meaning and value

when it goes in line with dialogue, tolerance. A pluralistic, democratic order is a condition for freedom and democratic transformation. The fundamental right to freedom of religion belongs to the sphere of Human Rights.

Freedom of religion as a human right

The term "human rights" includes a number of concepts and basic principles of freedom, equality, justice, so necessary for the individual, community, society. As freedom and equality were discussed and rights were constituted, in the first half of the last century the world became embroiled in two wars. This was a basic reason to review major issues of freedom and human rights. After World War II, the international community, through the UN, agreed on the fundamental rights and freedoms that apply to all.

The Universal Declaration of Human Rights of December 10, 1948 is a cornerstone of human rights and freedoms. It states: "Everyone is entitled to all the rights and freedoms set forth in this Declaration without prejudice to race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or otherwise." (Declaration, Universal, Article 2)

The proclamation of religious freedom is not everything. It requires the ability of the believer to organize life according to his conscience. It can find the necessary space only in democratic systems, ruled by law and depends on the level of democracy in a country. Human rights mean freedom of conscience, freedom of thought and freedom of peaceful assembly, the ability to express oneself in private and public settings, without damage to the interests of others.

Religious freedom is enshrined in our Constitution as well as in the Universal Declaration of Human Rights. States that have ratified the Convention have the obligation to respect the rights and freedoms enshrined in the Convention and its Protocols. Freedom of thought, conscience and religion are also enshrined in Article 9 of the European Convention on Human Rights and constitute one of the foundations of a democratic society. In religious terms, the Convention is the source of the realization of religious freedom, which has to do with the identity of believers and their concept of life. This freedom includes, inter alia, the freedom to have or not to have a religious belief, as well as to practice or not a religion.

According to the provisions of the Convention "Everyone has the right to freedom of thought, conscience and religion; this right implies the freedom to change religion or belief and the freedom, whether individually or collectively, publicly or privately, through worship, teaching, practice and ritual. (The European Convention on Human Rights (ECHR), Article 9 § 1).

Regarding freedom of thought, they derive a range of attitudes. To the question of whether you would marry a person of another faith, believers generally answer in the affirmative. But in practice, marriages between believers of different religions are very rare. Believers who express that they would not want to marry worshippers of other faiths associate it with the lack of family coherence that can occur.

Believer R. L. - 31 year's, single, said: "My partner must be of the Muslim faith, as misunderstandings could arise in the family: "I am sure of that." As for the marriage with an atheist, believers express reservations. F. B - 37 years old, married, said: "I would not marry an atheist, because he does not believe in God." Believers see faith

in God as part of their identity. They see their lives dependent on the divine bond. Believers generally do not change the traditional belief derived from their family. The phenomenon of conversion outside the family tradition is encountered only in rare cases. As has happened in conversion from other faiths (Muslim, Catholic, Bektashi) to the evangelical faith or to Jehovah's Witnesses. However, these cases are in low percentages due to the fact that these beliefs, according to the census, as quoted below, constitute a small measure in religious beliefs in Albania.

Believer from Leskovik, F. B, 37 years old said: "I was 14 years old when my sister married a practicing Muslim from Kavaja. In Kavaja, I went to the mosque for the first time with her sister and her husband. It was the first contact with this faith, which gave me a special feeling. From that moment I made the first prayer in this faith and created direct connection with God. Since that day I have been spiritually connected to Islam, I have converted from Bektashi to Muslim Sunni. The family, in Leskovik, went to the *Tekke*, they were fanatical Bektashis and we initially had debates. Over time, when we (my sister and I) felt good, they also converted to Sunni Muslims."

Religious freedom can neither be curtailed nor restricted. "The freedom of expression of one's religion or beliefs may not be subject to any restrictions other than those provided by law and which constitute necessary measures in a democratic society in the interest of public safety, for the protection of public order and health or morality or the protection of the rights and freedoms of others." (Convention, Article 9 § 2).

At this point believers are careful, as violating the interest of others is a punishable act even according to the Holy Scriptures. This is often reflected in the assertions of believers. In the terminology of the holy books this is considered, according to Christians, *Sin* and according to the believers of the Islamic religion, *Harrëm*¹.

Religious freedom as a constitutional right

The realization and functioning of religious freedom is a challenge even with the totalitarian past, in Albania, where religion was outlawed. The democratic state, which was established after 1990, created space for religious freedom. Religious freedom was structured on the basis of the new experiences of democratic states, and the life of religious organizations, which developed in them. The Albanian religious tradition also became a great help. It is related to national values, where a remarkable help was given by the humanist clerics and the renaissance believers of our country. The 1998 constitution guaranteed the right to freedom of religion and belief. The Constitution, with additional amendments, is the foundation of the rule of law. As in democratic countries, in Albania laws have been drafted that protect freedoms and human rights. The Constitution stipulates that there is no official religion in the Republic of Albania; that the state is neutral in matters of faith and conscience and guarantees their freedom of expression in public life. The state recognizes the equality of religious communities, which are legal entities.

Article 10, point 4 stipulates that: "The state and religious communities mutually respect each other's independence and cooperate for the benefit of each and everyone." (Constitution of the Republic of Albania, 2016, p. 3). The government generally respects this right in practice. It has signed agreements with the main communities of the country: Catholic, Muslim, Orthodox, Bektashi and Protestant.

Human rights instruments also protect secular freedoms. Basic documents expressing

religious freedom are valued as valuable instruments even for non-believers: atheists, agnostics, skeptics and the disinterested. These rights extend, both to the major world religions, the Christian or Islamic faiths, which have existed for many centuries in Albania, as well as to relatively newer religions, which have been created in recent centuries, such as Bektashism and Protestantism, which are the object of study.

The theological aspect of religious freedom

Religious freedom has developed along the same lines, even within religious beliefs. Religious institutions, in democratic countries, have demanded the development of freedoms, in accordance with truth, justice, individual and social responsibility, with human dignity. Religious institutions have requested that religious freedoms be protected from various conflicting interests. They require a fair treatment of the believer, on an individual, family, social level. This has been required to be enshrined in relevant legislations, and governments must comply with it. Freedom of religion in the theological concept requires the development of the identity of the worshiper with religious and civic values.

Thus, in the Vatican Declaration, 1965, on religious freedom, the Vatican Council declared certain qualities of religious freedom. It relates to human rights, both at the individual and religious community level. Religious freedom is treated as human dignity and is developed in relation to social and civil freedom. It underlines: A sense of human person dignity is impressing more and more deeply into the consciousness of contemporary man, and it is increasingly required that people act according to their own judgment, enjoying and using a responsible freedom, not driven by compulsion but motivated by a sense of duty. (Pope Paul VI, on December 7, 1965).

The Vatican Council declares that every person has the right to religious freedom. The demand for freedom in human society "is related to the search for values appropriate to the human soul. It has to do, in the first place, with the free exercise of religion in society." (Yes there)

"This freedom means that all people should be immune from coercion by individuals or social groups and by any human power. in such a way that no one is compelled to act in a manner contrary to his beliefs, whether privately or publicly, whether alone or in collaboration with others, within the proper limits. Freedom of religion is achieved when "the government does not violate the lawful freedom of the individual and of associations." (Yes there)

The sociological aspect of religious freedom

The sociological aspect is related to the treatment of individual and social relations, in the context of religious freedom. The impact that the relationship that freedom of religion generates has on the way others are treated, both individually and socially. Religious freedom is a condition for the generation of community assets, which enable to enrich the life of the believer and the organization. In the sociological perspective, religious freedom is examined as a multidimensional concept, which incorporates aspects of subjective and social content.

International conventions spread the democratic spirit around the world. The young Muslim woman, S. L, married, with a small child living in Oman, when asked about

the spaces of youth freedom there, said: "Young women there are generally not covered. They want to live a life, as they think, within the religious context. They are generally believers, not practitioners. They follow their societies. Their parents, seeing that they do not have much influence, let them make their own choices."

From a sociological perspective, documents on religious freedom are treated as individual and religious group autonomy, as an individual right of the believer. The believer enjoys the freedom to express his abilities, to choose and follow a certain faith. Religious freedom is an essential factor in shaping the believer's identity and his concept of life. Freedom serves worldview and religious identity.

In the organizational context, religious freedom is treated as a social value. It serves dialogue, coexistence between communities, tolerant and peaceful behavior. Religious freedom promotes religious and cultural diversity in society. Religious freedom promotes interfaith dialogue as an instrument of social development. In a democratic society, attitudes and behaviors are discussed, while constituting a social phenomenon. Pluralism requires a marriage of diversity and peaceful coexistence requires tolerance in order to balance competing rights.

Mills presents the interdependence of social ties when he writes that: "... the values that the public disseminates are threatened if they are not discussed" (C. Wright Mills, 2000 [1959]: 8).

The sociological perspective supports the functioning of individual and social values of religious freedom. Organizations, religious groups, enjoy the right to express themselves, to assemble, to organize religious activity, discussing issues of doctrine and liturgy. The organization is free to perform religious rites and ceremonies. From a sociological perspective, religious freedom is seen as an instrument of social challenges. It serves debates about sharp public policies such as abortion, homosexuality, the clothing of believers, etc., which may go beyond the traditional attitudes of religion.

From a sociological perspective the organization has a lot to do. This is in line with the dimensions of freedom. Thus, speaking without shyness is an important aspect of religious freedom. Believers, on the other hand, accept the fear of God, which is a different kind of fear. Another aspect of religious freedom is to stand up for what is thought to be right. Practical life shows that even at this point, there are reservations. It is hard to think that believers exercise unreservedly beliefs about things that go beyond physical reality, in an intangible metaphysical world. While there is spiritual suffering which is considered part of existential suffering. Such phenomena can create doubts in the life of the believer.

Only the introduction of the democratic process and legal regulations can't guarantee religious freedom. This requires a job with dedication and professionalism on the part of the organization. The 4th International Parliamentary Forum on Religious Freedom entitled "Why Religious Freedom Matters," states: "One can create the false impression that restrictions on religious freedom or belief occur only in third world or distant lands. But it is not so. "Violations in the West may be minimal when compared to brutal violations elsewhere, but the West is clearly fighting over how to define and protect religious freedom."

The drafting of legislation does not necessarily lead to its implementation. Deviations from the law constitute an international phenomenon. According to the annual Pew Research Center study on global religious restrictions, the crisis of religious freedom,

globally, has worsened. In 2013, 77% of religious restrictions occurred in countries with a high or very high level of development. As for the restrictions, for these places, were 76% in 2012 and 68% in 2007.

Methodology

To highlight the freedom of religion, the necessary legal, theological and sociological literature was selected in the study. It contains mainly, the conventions on religious freedom, the constitution of Albania and the religious literature which describe the requirements for freedom of religion. The main questions of the study are: What is the concept of the believer and the organization for religious freedom? What does the sociological perspective offer in the treatment of religious freedom? What does the legislation provide for the protection of religious freedom? How does religious freedom materialize in the life of the believer and the organization?

The answers to such questions are not merely academic, they come through practical implications. The study was conducted in the Region of Tirana, since 2016. During this time, 38 believers and clergy were interviewed, and observations and conversations were conducted. Some of the questions were also about freedom of religion.

The research method was based on a qualitative approach. The use of techniques of this method, such as: observations, conversations, interviews, enabled to collect data in the field. The issue of religious freedom was examined in some religious communities (organizations) of the Tirana Region, such as: Muslim, Orthodox, Catholic, Bektashi and Evangelical (Protestant) communities. In addition, for the study, special cases of involvement of worshipers of other faiths were examined.

The county, in socio-demographic terms, has some features. 1/3 of the population of Albania lives there. The total population of Albania is estimated at 3 million. According to the general census of 2011, regarding religious affiliation, in the territory of Albania are 56.70% Muslims, 10.03% Catholics, 6.75% Orthodox, 2.09 are members of the Bektashi Order (a form of Shiite Sufism), 0.14 evangelicals. While 5.49 are self-declared as unqualified believers and 2.5% atheists. The number of those who preferred not to answer for their religious affiliation is 13.79% of the total population. In the Region of Tirana, different believers pray and in conversations and interviews with them, they bring the religious experience of the cities and provinces from which they have moved. Believers from other districts, temporarily staying in Tirana, were interviewed, while praying. Even this group of believers has been ready to talk about freedom in the religious settings where they live. Questions were also addressed regarding the constitutional guarantee of freedom of conscience and religion.

From the study of literature, international reports on the issue of religious freedom and the identification of the phenomenon on the ground, it results that in Albania the freedom of religion is respected. In the international reports regarding the freedom of religion, in Albania, a general summary is given, we quote: The Constitution guarantees the freedom of conscience and religion. It states that there is no official religion, that the state is neutral in matters of religion, recognizes the equality and independence of religious groups, and prohibits discrimination based on religion. (International reports on religious freedom, in Albania, 2017)

But, in practice, some problems are identified. Thus, UN Rapporteur Ahmed Shaheed appreciates religious coexistence. Albania should be taken as an example of religious

tolerance and evaluated for the number of beliefs followed. But he says the verification of the source of foreign funding remains a concern. He even states that in Albania some people are under surveillance as they are suspected of recruiting extremists. (Shaheed Ahmed, "Zani i Malsisë", 18 May 2017)

Regarding the return to Albania of 14 Albanian children and five women trapped in the war camps in Syria, Clergyman Hysni Gura, of the Muslim community said: we talked to the families of the recruits; they expressed concern for the lives of family members. They think that the recruits, experiencing life there, have realized what a good thing is for them, their families and the Albanian society. (Gura H., Insajderi.com, 06.08.2021)

The socio-demographic indicators of the Tirana Region make it possible for generalization even at the national level. Another factor for generalizations is the fact that religious morality, in content, despite; the religious, cultural mosaic, remains the same for all faiths. Contemporary studies highlight the fact that all religions are essentially the same, distilling into a common set of values.

Findings

The holy books are a priority in the formation and conduct of believers, compared to other sources such as constitutional articles, laws and international acts on freedom of religion. Social treatments are made mostly, according to the scriptures, rather than from a sociological perspective. Believers generally follow the traditional line. Consequently, freedom of thought is conditioned to a considerable extent by this line. Believers adhere to a belief, which is usually that of their family. The phenomenon of conversion from one believe to another is very rare. Muslim believers, by performing religious rites even at home, influence children, who imitate them and influence their identity and freedom of choice. Bektashi believers, based on their tradition, where *Tekkes* (small mosque) also served as places of reception for pilgrims, hold conversations in close social circles. While other faiths call through extensive conversations lecturers dealing with religious problems, related to social and national problems. The Bektashis differ in this view, who according to tradition, maintain the thesis that without a homeland there is no religion! Prominent national figures such as Naim Frashëri, Gjergj Fishta, Fan Noli, sisters Qirjazi, Hafiz Ali Korça, Hoxha Tahsini, etc., are examples of shaping the freedom of conscience and thought of believers at the national level.

Conclusion

The findings, listed above, constitute the basic characteristics of the believer and as such they affect their freedom of belief and attitudes, both inside and outside the community. Freedom of thought is an instrument in shaping the identity of the believer, both religiously and socially. The great figures of religion and nation, mentioned above, stand on the altar of the Albanian faith and cause. That shows the integration of religion in Albanian society, common mentality towards social values. Religious beliefs have motivated passionate behaviors, as in the past, and continue to do so today. The discussion of religious freedom serves to clarify social issues, evaluate arguments on potential, and the practical values of the religious

organization. The organization has a fair perception of religious freedom, treatment through relevant legislation and international acts. But this does not come down enough to the believer. They are more informed about the contents of the holy books. The believer is obliged to follow the traditional spirit and conservatism of the faith, which can curtail freedom of thought. Legislation, international conventions and treatments from a sociological perspective are a great help for the recognition of rights and their impact on social environments. The perspective of the sociology of religion, operating with social relations in the treatment of religious freedom, constitutes the main source of the manifestation of religious freedom in all its dimensions. Religious freedom in the context of pluralism and global developments is multidimensional. A more detailed treatment of specific aspects, could serve in future research work. It can also be detailed to highlight the freedom of religion across counties, emphasizing their peculiarities. Religious organizations, believers and clergy have an obligation to recognize and professionally treat religious freedom and its effectiveness in daily life.

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Evaluation of the possibility of common carp stocking, as one of the options for enhancement of its population in Shkodra Lake

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Abstract

Shkodra Lake is the largest lake of the Balkans and a well-preserved fresh water ecosystem. The lake has unique ecological and commercial values, resulting among others from the rich ichthyofauna. The fishing activity that takes place in the lake is an important source of income for fishermen communities. Common carp (*Cyprinus carpio carpio*) with 31% of the total lake catch, constitutes one of the most fished species. Estimates from recent years showed that common carp stock productivity is not sustainable. The purpose of this study is to evaluate the benefits of common carp stocking in Shkodra Lake, as well as the benefits and costs associated with this management tool. The potential success of fish stocking in the biological, social and economic aspects was assessed using an integrated bioeconomic model. Two management tools were analyzed: restriction measures for exploitation and stocking. Management tools were analyzed taking into consideration two scenarios: their specific operation and the combined one. The study showed that common carp stocking as a means to increase the productivity and consequently the income of fishermen would be unsuccessful and not cost-effective. If the management would only aim at conserving the carp population, then stocking with juveniles (15 cm) is recommended. Enhancing the reproductive stock (individuals 2+) should involve stocking with adults (27 cm).

Keywords: stocking, common carp.

Introduction

Inland waters finfish fisheries contribute with 40% of the world's finfish fisheries and aquaculture production (Lynch et al. 2016). In Albania, according to the state fishery statistics for the year 2020 (INSTAT, 2020) the reported inland water fishery production were 2844 ton, that constitutes 16.83% of total production from fishery and aquaculture. Based on the same source of information, common carp (*Cyprinus carpio carpio*) production in inland waters for 2020 was 673 ton, making it the main inland water fishing species.

Despite this indisputable importance, due to lack of reliable data, inland fisheries has never been part of any high profile global fisheries assessment (Cooke et al., 2016). The low proportion of fish provided by inland capture fisheries globally does not reflect the importance of inland capture fisheries globally does not reflect the importance of inland capture fisheries in today's society (Barley et al. 2015).

Although fisheries management in major natural lakes in Albania has recently received a greater focus, also due to their cross-border status, knowledge of ecosystem functioning, productivity and fish stocks abundance is still limited. Large lakes have been subject to increased fishing pressure, pollution and introduction of non-indigenous species with consequences on fishery productivity (National Fisheries Strategy 2016-2020). So, there is an urgent need in providing more knowledge on the

status and functioning of these ecosystems in order to ensure a rational management of their resources.

Fishery is one of the most important activity of local population in the Albanian part of the Shkodra Lake. According to Dervishi et al. (2018) 434 fishermen conduct fishing activities in the lake. The most fished fishes of the lake are roach, common carp, Prussian carp, bleak, flathead grey mullet, eel, etc. (Dervishi et al.2008). Eel, twait shad, mullet and European sea bass are found in the lake due to seasonal migration and the close connections that the lake has with the Adriatic Sea. The average fishing day per fishing unit (one boat, two fishermen) is 126 and the fishing effort 20.1 kg per fishing unit/day (Dervishi et al., 2018).

Management of fish stock like for other natural resources have either conservation objectives or socio-economic objectives, or both. (Mardle and Pascoe, 2002; Walters and Martell, 2004). Conservation objectives include the conservation of the European wild carp population as the most representative species and a symbol of Lake Shkodra or its regeneration to support long-term fishing activity in the Lake. Socio-economic objectives relate to meeting food needs and the economic benefits of selling fish. Selecting a satisfactory compromise between both objectives and identifying suitable management actions to realize it are the primary challenges of fisheries management (Walters and Martell, 2004).

In addition to limiting catches by restricted fishing permits, limiting fishing effort and closed fishing seasons, stock enhancement by releasing hatchery products in waters inhabited by wild populations of the same species is an alternative management strategy. The specific development objective no. 8 of the National Fisheries Strategy (2016-2021) states that “in some cases it is necessary to support natural production in lakes through restocking, e.g. restocking of endemic trout and common carp”. The aim of this study was to evaluate the relative effects of different management tools, especially the benefits and costs associated with common carp stocking in Shkodra Lake. These assessments would help in selecting appropriate management tools in drafting fisheries management plans or fish population conservation plans.

Methods

The potential effects of common carp stocking in Shkodra Lake in ecological, social and economic aspects were evaluated using the software package “Hegeplannung” (Arlinghaus et al., 2016). The software is a bio-economic simulation program based on Johnston et al. (2015). The effects of stocking and comparison of different management measures was carried out through multifactorial analysis.

In this paper two management tools were analyzed: exploitation restrictions and stocking. These management tools were analyzed in two scenarios: their separate impact and combined impact. Managerial tools were evaluated related to conservation and socio-economic objectives.

Stock management tools were evaluated through several analyzes. Each scenario was the result of the analysis of pre-defined managerial variables. For each analysis the managerial variables were calculated and presented visually. Managerial tools were assessed across all their spectrum (minimum length at catch, harvest slot, daily bag limit, fish life stage at stocking, stocking density). Selected performance indicators were qualitatively evaluated.

The required data on the characteristics of carp population in Lake Shkodra (growth, performance, and mortality rates), the number of fishermen and the fishing effort used by them were provided by Dervishi et al. (2017) and Dervishi et al. (2018), whereas habitat quality data were obtained by Peveling et al. (2015).

Results and Discussions

Initially the managerial tools were estimated with the only objective of preserving and improving the carp stock. The relative effectiveness of different harvest regulations and different stocking tools are simulated with regard to their general suitability for achieving the conservation objective.

The upper three graphs shown in Figure 1 predict the stock density under the non-combined operating conditions of the three tools related to catch restriction: the minimum length limit, harvest slot and daily bag limit (quota).

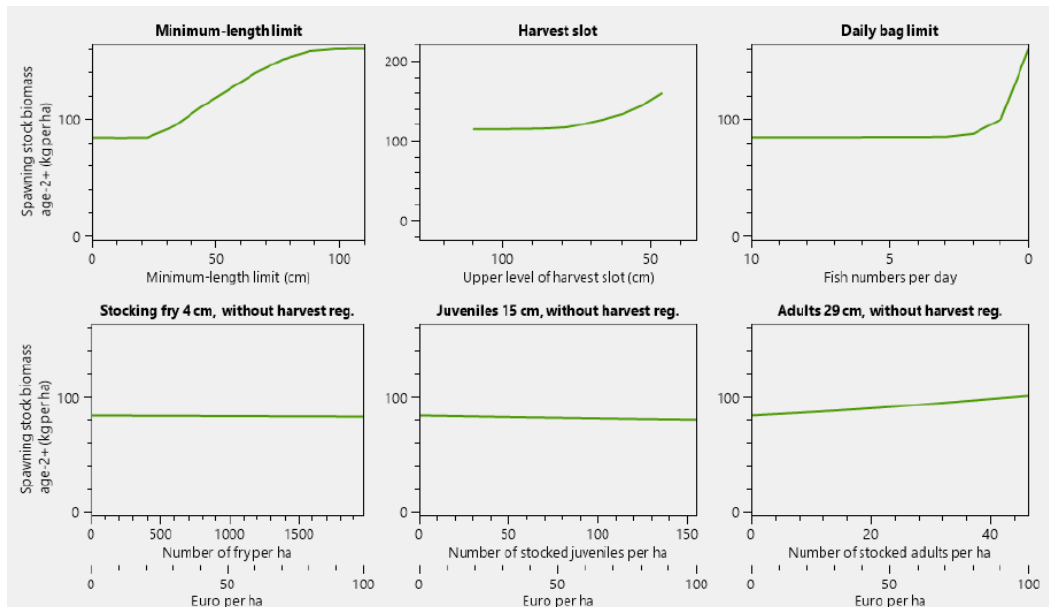


Figure 1. Simulation results for the effects of catch restrictions: minimum length limit at catch, harvest slot and daily bag limit as well as stocking of different intensities with carp fry, juveniles and adults on the abundance of spawning fish (biomass/ha).

In Lake Shkodra, the minimum length at catch of 30 cm is applied as an output control measure (Regulation no. 1, 2012 on the implementation of the “Law on Fisheries”) and the limited number of fishing permits as an input control. As it is evident from the graph, the increase of minimum length at catch contributes significantly to biomass conservation. Only limitation of the minimum length with 30 cm, without applying any other management tools ensures in the long run a production of 91.8 kg fish/ha. Increasing the minimum length to 35 cm, the minimum size the Montenegrin legislation is applying for Shkodra Lake carp (GIZ, 2017) will increase the biomass up to 97.1 kg/ha. However, according to Arlinghaus & Rapp (2016) attention should be paid to trends across the gradient and not the concrete numerical forecast. It could be stated that in order to achieve a maximum biomass equal to the carrying capacity of the environment (plateau part of the graph) the minimum length at catch must be

increased by more than twice of that what is currently applied, which is unrealistic for carp fishing in the Lake.

By comparing the independent effect of the three harvest regulations in maintaining the carp stock abundance, it seems that the application of the harvest slot leads in the long run to a higher biomass of the adult reserve compared with two other catch restrictions. Harvest slot range of 35 - 70 cm in length can be realistic and applicable to artisanal fishing in Lake Shkodra and would provide in 10-20 years an adult fish biomass of 122.1 kg/ha. However, it should be noted that the application of the harvest slot should be constantly accompanied by an assessment of the age structure of the stock in order to preserve the less represented age groups.

A daily catch of more than 1-2 fishes/day leads to a sharp decrease in adult fish abundance. The reason is that the analysis does not allow a combination of conservation measures; the carp stock fished with the daily catch limit is not protected by the additional harvest restriction tools as application of minimum dimensions or harvest slots, which leads to rapid overfishing of recruitment and the collapse the fish population.

The graphs at the bottom row in Figure 1 show the simulation results on the effects of fishing with individuals of different lengths and intensities (densities) on stock abundance. The results showed that in the absence of restrictive harvest tools in use, even intensive stocking with carp fry and juveniles would not increase the biomass of spawning fishes, but maintains it at average levels of 84.0 kg/ha and 82.5 kg/ha respectively. This biomass is lower than that provided by the application of the limiting tools of minimum length in over 30 cm and harvest slot. Further analysis are needed to assess the survival and recruitment failure of hatchery fry and juveniles in the spawning population. In order that adult stocking (29 cm) to have a significant effect on stock reproductive biomass, stocking density should be 40 individuals /ha or higher, but in this case stocking costs increase greatly and stock biomass does not exceed what is provided by limited size tools. Finally, based on the modeling results, stocking can be considered as an ineffective tool in conserving and improving carp stock in Lake Shkodra.

Figure 2 graphically presents the simulations for the combined effect of applying the minimum length at catch and stocking. Even combined with the size restriction tool, carp fry and juveniles stocking did not lead to significant changes in the spawning stock biomass. An increase in spawning stock biomass by almost 20 kg/ha is possible in the long run only through stocking with the density of 23 adult individuals per hectare. Based on the model it can be noted that carp management based purely on conservation can rely on the control of fishing mortality through application of minimum length at catch or harvest slot and in the case of stocking would primarily fall back on stocking with high number of spawning fish.

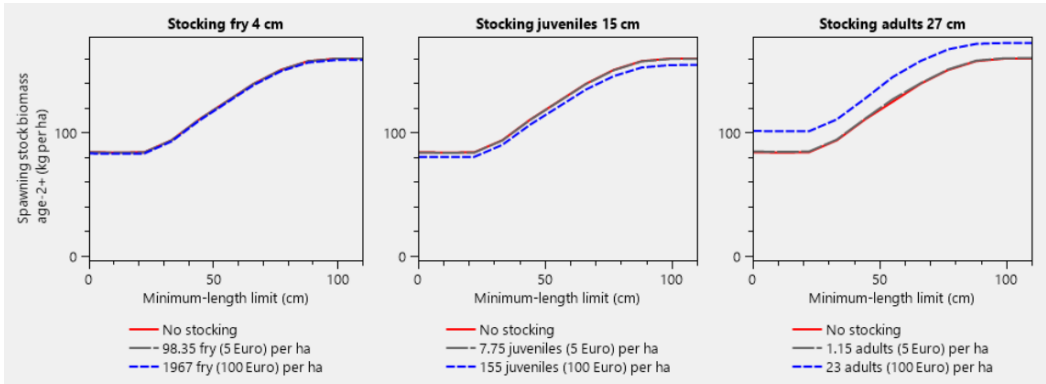


Figure 2. Simulation results for the combined effects of minimum length limit at catch and stocking of different intensities with carp fry, juveniles and adults on the spawning fish biomass (kg/ha).

Besides simulations of two different management tools with purely conservation goal, analysis of management tools were made also for social-conservation goal. The social-conservation target variable used is yield biomass per hectare and year. Stocking with fry and juveniles didn't prove any significant changes on biomass yield (first two graphs of Figure 3). The long term effect on biomass yield was attributed only to minimum length limit. The combined effect of catch restriction and stocking on biomass yield is shown when stocking with high density adults (23 individuals/ha) and a limit size at catch of 30 cm (last graph of Figure 3).

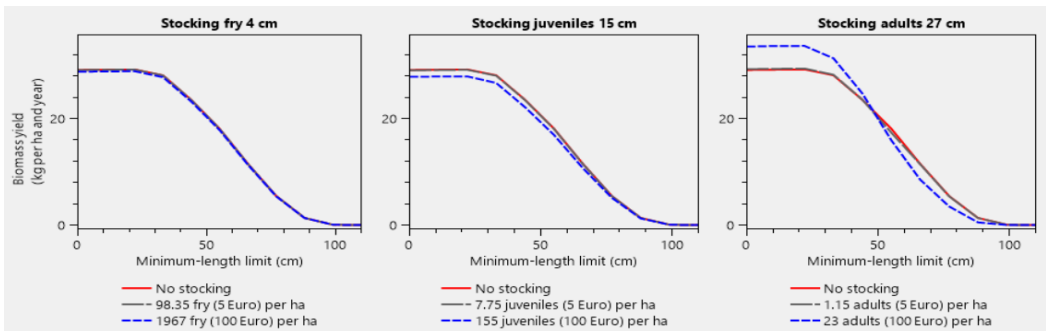


Figure 3. Simulation results for the combined effects of minimum length limit at catch and stocking of different intensities with carp fry, juveniles and adults on the biomass yield (kg/ha/year).

Angler satisfaction was another social conservation target variable that was estimated. The angler satisfaction evaluates all fishing conditions prevailing on the water in balance with angler satisfaction, i.e. catch prospects (catch rate, catch of large fish), degree of overcrowding as well as the prevailing catch regulations (Arlinghaus & Rapp, 2016). Calculating the angler's satisfaction in euros allowed the net benefit analyzes (comparison of the actual costs of the fishermen in relation to the angler's satisfaction achieved) (Arlinghaus & Rapp, 2016).

According to simulation results (graphs in Figure 4), the highest angler satisfaction would be reached for an average fish size limit at catch. Contrarily, fish stocking

combined with size restriction, would not bring additional benefits and satisfaction to fishermen. As a result, carp stocking wouldn't make anglers happier than keeping moderate catch restrictions that allow a compromise between stock conservation and exploitation.

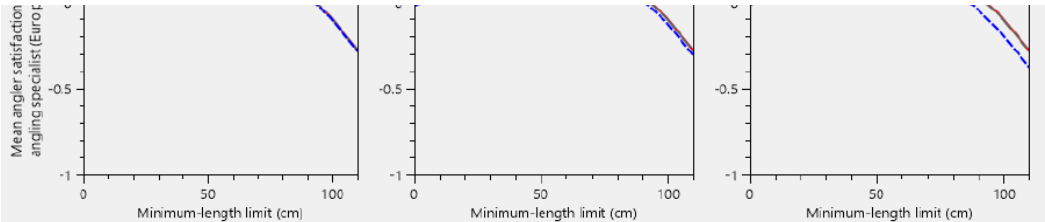


Figure 4. Simulation results for the combined effects of minimum length limit and stocking of different intensities with carp fry, juveniles and adults on angler satisfaction (Euro/ha).

The net benefit was chosen as target variable for the economic-conservation goal of the stock management. Simulation results for the not-combined management tools (size restriction and stocking) are presented in Figure 5. The net benefit is estimated as angler satisfaction minus management costs (Euros/ha). Since the implementation of the catch restrictions is not associated with monetary costs, the net benefit was neutral or positive over a wide range of size restriction and daily bag limit (upper graphs, Figure 5). On the other hand, for fish stocking the net benefit decreases with increasing stocking numbers of fry, juveniles and adults (the graphs below), which is explained by the low angler's satisfaction and the high stocking costs (Arlinghaus & Rapp, 2016). Therefore, carp stocking is not an efficient activity when carried out only for economic purposes.

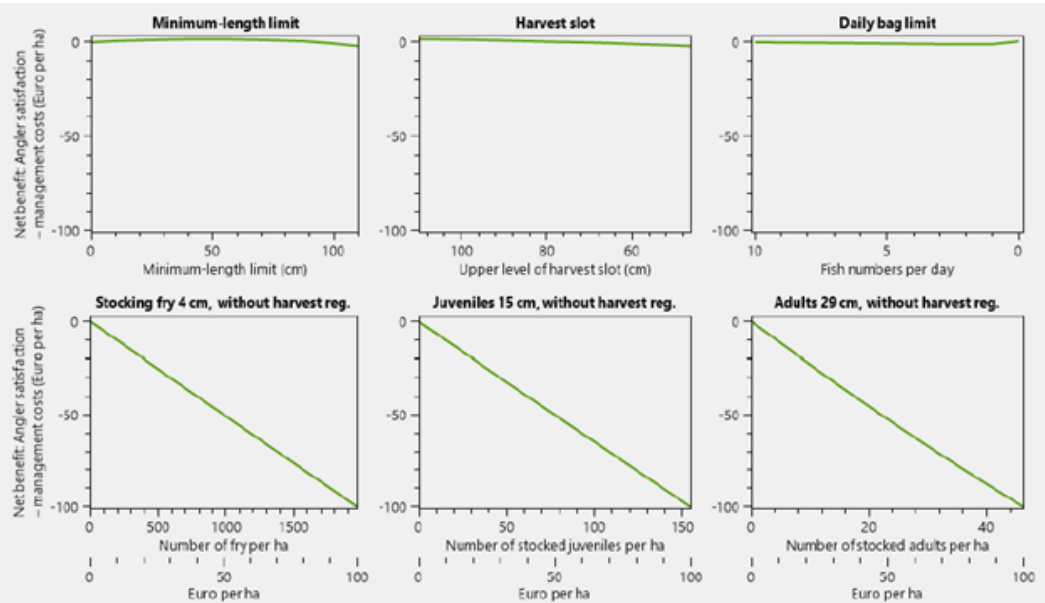


Figure 5. Simulation results for the effects of catch restrictions: minimum length limit, harvest

slot and daily catch limit as well as stocking of different intensities with carp fry, juveniles and adults on the net benefit (Euro/ha).

Conclusions

In the scenarios presented, it became clear that the preferred management tools depend on the goals and their associated assessment criteria. The modeling showed that by now size restriction tools: limited length at catch and harvest slot, as well as stocking high density adult carp are the most suitable tools for common carp stock conservation in Shkodra Lake. When stocking high density adults combined with minimum allowed length at catch applied actually for carp in Shkodra Lake, stock biomass will be expected to increase in long term. When considering the economic interests of fishermen, stocking brings no benefit and satisfaction to the fishermen, even in long term. However, Lake Shkodra is a natural lake of natural and cultural importance and the common carp is the most representative species of the lake and given this the costs of hatchery and stocking are expected to be covered by the state, while the contribution of Fisheries Management Organization to which the lake fishermen are organized, will be low.

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Prevalence Study of Chronic and Acute Disease in a Group of Individuals of the Shijak Population for the Year 2020. Correlation Between the Main Diagnosis and Concomitant Disease

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Abstract

The aim of this study was to determine the prevalence of chronic and acute disease in a population of 417 patients (243 female and 174 male), divided into age groups. And the correlation analysis of principal analytical components of the main diagnosis and concomitant disease. In this study resulted 30 different main diagnosis. Diagnosis with higher prevalence are: 1. Diabetes Mellitus: 42.2 %; 2. HTA (Arterial Hypertension): 27 %; 3. Anemia: 10 %; 4. Dyslipidemia: 4.8 %; 5. Rheumatoid Arthritis: 2.9 % of population. Resulted as concomitant disease for Diabetes Mellitus: HTA, Hepatic Cirrhosis, Atrial Fibrillation, Anemia, Rheumatoid Arthritis, Dyslipidemia, Chronic Renal Insufficiency. Concomitant disease for HTA: Dyslipidemia, Diabetes Mellitus, Anemia, Rheumatoid Arthritis, Chronic Renal Insufficiency. Correlation between principal analytical components to the main diagnosis and concomitant diseases resulted positive. This indicates that the deteriorating health condition of a disease affect in the metabolic abnormalities and in the emergence of other concomitant disease. It depends on various factors like the age, the gender, sedentary life, lack of physical activity, medical care, daily work, genetic factors. The importance of this study is to conclude and to apply the knowledge for the main disease and the concomitant disease in order to prevent the diseases in early stage and accurate determination of diagnosis for the implementation of a regular medication.

Keywords: Concomitant Disease, Diabetes Mellitus, Main Diagnoses, Prevalence.

Introduction

Prevalence measures how much of some disease or condition there is in a population at a particular point in time. The prevalence is calculated by dividing the number of persons with the disease or condition at a particular time point by the number of individuals examined (B. Roe and H. Doll). $\text{Prevalence} = \frac{\text{Number of subjects having the disease at a time point}}{\text{total number of subjects in the population}}$ (Marlies Noordzij et al., 2010). The prevalence of an illness or condition is the number of individuals who have the condition at any moment. In some cases, such as epilepsy or migraine, individuals will not have symptoms most of the time, but still have the condition. The effects of the illness and the loss of health will vary from one individual to another. The result may be serious impairments and disability affecting a person's ability to work or take part in family and community activities, or only mild impairments or disability. Prevalence data therefore do not capture the burden of disease experienced by individuals in terms of lost health. (World Health Organization. Part 3). Prevalence divided in two types: point prevalence and period prevalence (Mayfong Mayxay M.D). The evolution of modern health-care systems has led to an increasing number of diseases and injuries being diagnosed and treated in individual patients, and developments such as antihypertensive and statin

medications, percutaneous coronary intervention, and antiretroviral therapies have led to averted deaths and longer lives (Global Health Metrics 2018). Cardiovascular diseases (CVD) comprise a wide range of pathological conditions of the heart muscle and blood vessels. Cancer: There are many forms of cancer, or malignant neoplasm. All cancers start because cells divide and grow out of control, forming malignant tumours, which can invade nearby parts of the body or spread to more distant parts of the body. Untreated cancers can cause serious illness and death. Diabetes is a metabolic disorder causing chronically increased levels of glucose in the blood. It can lead to complications such as blindness, heart and blood vessel disease, stroke, kidney failure, amputations, and nerve damage. Obesity is a risk factor for diabetes and the current strong increases in obesity in Europe predict a strong increase in diabetes prevalence in Europe in the near future. Respiratory diseases and allergies include COPD (chronic obstructive pulmonary disease) asthma, and allergic rhinitis. Asthma is a chronic inflammation of the airways often caused by allergens and leading to coughing, wheezing, and difficulty breathing. Allergic rhinitis is a collection of symptoms, mostly in the nose and eyes, which occur after breathing allergic substances such as dust or pollen. Mental disorders include affective mood disorders (such as depression), anxiety disorders, schizophrenia and, for instance, eating disorders. I Neurodegenerative diseases are characterised by progressive nervous system dysfunction. These disorders are often associated with atrophy of the affected central or peripheral structures of the nervous system (Harbers MM and Achterberg PW 2012). The number of people with diabetes is increasing due to population growth, aging, urbanization, and increasing prevalence of obesity and physical inactive. The number of cases of diabetes worldwide in 2000 among adults 20 years of age is estimated to be 171 million (Sarah Wild et al., 2004). Hypertension is a chronic medical condition in which the blood pressure in the arteries is elevated. The higher the pressure in blood vessels the harder the heart has to work in order to pump blood, thus making the heart to work too hard. It is popularly known as the “silent killer,” because it has no specific sign and symptoms in the initial stage. Hypertension is the most important modifiable risk factor for cardiovascular disease (Ikeoluwapo O. Ajayi, Ibukun Opeyemi Sowemimo and Onoja Matthew Akpa, Ndudi Edmund Ossai 2018). Anaemia is a global public health problem affecting both developing and developed countries with major consequences for human health as well as social and economic development. It occurs at all stages of the life cycle, but is more prevalent in pregnant women and young children. In 2002, iron deficiency anaemia (IDA) was considered to be among the most important contributing factors to the global burden of disease. It is generally assumed that 50% of the cases of anaemia are due to iron deficiency, but the proportion may vary among population groups and in different areas according to the local conditions (growth and pregnancy) (World Health Organization. Global Database on Anaemia 2008). The best way to decrease the high impact of chronic diseases on individuals, our societies and economies, is to prevent them. Prevention addresses both the occurrence of the disease and the evolution as a severe form, with complications. Prevention can largely be improved by understanding risk factors and how these play in the development of the diseases (Health Prevention Investment 2019).

1. Materials and Methods

Analysis data were obtained from the laboratory of Shijak State Hospital, Durrës, Albania, in the time period January – December 2020.

Data on the geographical position of Shijak:



Figure 1. Map of Shijak municipality

Shijak municipality is located in the part of central Albania and is part of administrative district of Durrës and is bordered by Xhafzotaj, Gjepalaj and Maminas municipalities. In its composition there are respectively 3 neighborhoods: 1. Popular neighborhood; 2. Erzen neighborhood; 3. Kodra neighborhood (Wikipedia, Shijaku).

For the study of prevalence in the selected population, are analyzed the main diagnosis and concomitant diseases. In the study are taken 417 individuals (243 female dhe 174 male), with various pathologies, to a group of individuals in the Shijak population. For this study was used the statistical processing with excel program. Individuals are divided in age groups. First age group (0- 14 years old), second age group (15- 24 years old), third age group (25- 34 years old), fourth age group (35- 44 years old), age group five (45- 54 years old), age group six (55- 64 years old), age group seven (over 65 years old). For changing analytical values between components and for the study of dependence between them is realized correlation method. By means of calculations is found the average value of each analytical component and calculation of prevalence in percentage. For the description of statistical analyzes is used graphic construction.

Normal values of analytical components and analytical methods are taken from laboratory manuals (Gesan Production 2015; Human Gesellschaft fur Biochemica und mbH).

Component	Glycemi	Triglyceride	HDL- Cholesterolol	Erythrocyte (RBCs)	Hgb
Normal value	70 - 110 mg/ dl	M a l e : 60- 165 mg/ dl Female: 40- 140 mg/ dl	> 35 mg/ dl	4.5 – 5.5 x 10 ¹² /l	14.0 – 17.4 g/ dl

Table 1. Normal value of principal analytical components. Glycemi (Diabetes Mellitus disease), Triglyceride (HTA – arterial hypertension), HDL- Cholesterol (HTA- arterial hypertension), Erythrocyte- RBCs (Anemia disease), Hgb (Anemia disease).

2. Results and Discussions

From data processing were analyzed the main diagnoses and concomitant diseases for each age group.

Number of Diagnoses	Main Diagnosis (Age Group I)	Main Diagnosis (Age Group II)	Main Diagnosis (Age Group III)
1	Anemia	Anemia	Anemia
2	Autism	Chronic Renal Insufficiency	Diabetes Mellitus
3	-	-	Cystitis
4	-	-	Dyslipidemia
5	-	-	Ca Tiroidae
6	-	-	Lipotimia
7	-	-	Genital Infection
8	-	-	Arrhythmia

Table 2. Number of main diagnoses for I age group (0- 14 years old); II age group (16- 24 years old) and III age group (25- 34 years old)

In III age group there are more types of diseases studied as the main diagnosis.

Number of Diagnoses	Main Diagnosis (Age Group IV)	Main Diagnosis (Age Group V)
1	Anemia	Anemia
2	Diabetes Mellitus	Dyslipidemia
3	Rheumatoid Arthritis	Diabetes Mellitus
4	Ca Mammae	Rheumatoid Arthritis
5	Arterial Hypertension	Hypertension Arterial
6	Urinary Tract Infection	Pericarditis
7	Dyslipidemia	Hypercholesterolemia
8	Chronic Renal Insufficiency	Cystitis
9	-	Urethral Calculus
10	-	Chronic Renal Insufficiency
11	-	Ca Mammae

Table 3. Number of main diagnoses for IV age group (35- 44 years old) and for V age group (45- 54 years old)

In V age group there are more types of diseases studied as the main diagnosis.

Number of Diagnoses	Main Diagnosis (Age Group VI)	Main Diagnosis (Age Group VII)
1	Arterial Hypertension	Diabetes Mellitus
2	Diabetes Mellitus	Bronchial Asthma
3	Systemic Lupus Erythematosus	Dyslipidemia
4	Rheumatoid Arthritis	Arterial Hypertesion
5	Dyslipidemia	Ca Cutis

6	Anemia	Colitis
7	Ca Mammae	Malignant Melanoma
8	Hepatic Cirrhosis	Urinary Tract Infection
9	Glaucoma et Cefale Forte	Chronic Renal Insufficiency
10	Osteoporosis	Parkinson
11	Urinary Tract Infection	Multiple Myeloma
12	Calculus Biliary	Rheumatoid Arthritis
13	Chronic Renal Insufficiency	Ca Mammae
14	-	Laryngitis

Table 4. Number of main diagnoses for VI age group (55- 64 years old) and for VII age group (65 years and older)

VI and VII age group characterized by the largest number of diseases studied as the main diagnosis.

Concomitant diseases: In the first age group there is only one type of concomitant disease, such as Epilepsy (in a patient with autism). In the second and third age groups the main diagnoses do not have concomitant diseases. In the fourth age group is observed only one concomitant disease, such as Diabetes (in a patient with Arterial Hypertension). With age the number of types of main diagnoses increases and also the number of types of concomitant diseases. With age metabolic abnormalities become more and more pronounced, and this is observed with the increase of the types of concomitant diseases causing deterioration of health of the patient with a certain main diagnosis. Individuals who have the highest number of concomitant disease types for a particular type of primary diagnosis, are VI and VII age group.

Age Group	Main Diagnoses	Nr.	Concomitant Disease
V	Anemia	1.	Mandibular Trauma
	Dyslipidemia	1.	Diabetes Mellitus
	Diabetes Mellitus	1.	Arterial Hypertension
		2.	Hepatic Cirrhosis
		3.	Atrial Fibrillation
	Arterial Hypertension	1.	Diabetes Mellitus and Hepatic Cirrhosis
		2.	Diabetes Mellitus
VI	Arterial Hypertension	1.	Dyslipidemia
		2.	Anemia
		3.	Diabetes Mellitus
		4.	Rheumatoid Arthritis
		5.	Chronic Renal Insufficiency
	Diabetes Mellitus	1.	Arterial Hypertension
		2.	Anemia
		3.	Rheumatoid Arthritis
	Anemia	1.	Diabetes Mellitus
		2.	Urinary Tract Infection

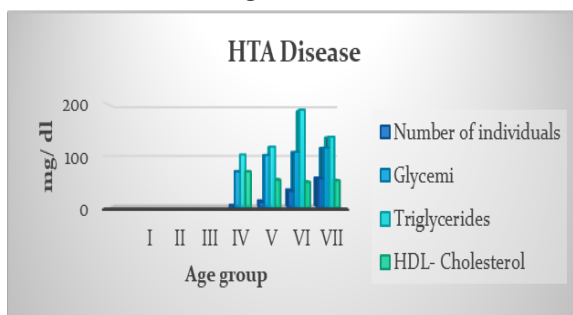
VII	Diabetes Mellitus	1.	Arterial Hypertension
		2.	Chronic Renal Insufficiency
		3.	Dyslipidemia
	Anemia	1.	Diabetes Mellitus
	Arterial Hypertension	1.	Dyslipidemia
		2.	Diabetes Mellitus
		3.	Abdominalis Cholicae
		4.	Colitis
		5.	Chronic Renal Insufficiency
		6.	Anemia
		7.	Urinary Tract Infection
		8.	Neuropathy
		9.	Atrial Fibrillation
	Colitis	1.	Arterial Hypertension
		2.	Hyperthyroidism
	Urinary Tract Infection	1.	Dyslipidemia
		2.	Diabetes Mellitus
	Laryngitis	1.	Diabetes Mellitus

Table 5. Concomitant diseases of main diagnoses for V, VI, VII age groups

For V age group, the main diagnosis having more types of concomitant diseases is Diabetes Mellitus with these concomitant diseases: Arterial Hypertension, Hepatic Cirrhosis, Atrial Fibrillation.

For VI age group, the main diagnosis having more types of concomitant diseases is Arterial Hypertension (HTA) with these concomitant diseases: Dyslipidemia, Anemia, Diabetes Mellitus, Rheumatoid Arthritis, Chronic Renal Insufficiency.

For VII age group, the main diagnosis having more types of concomitant diseases is Arterial Hypertension (HTA), with these concomitant diseases: Dyslipidemia, Diabetes Mellitus, Abdominalis Cholicae, Colitis, Chronic Renal Insufficiency, Anemia, Urinary Tract Infection, Neuropathy, Atrial Fibrillation. From the table it is observed that the diseases with the highest prevalence such as Diabetes Mellitus has most often higher as concomitant disease Arterial Hypertension. Arterial



Hypertension (HTA) has more often as a concomitant disease Diabetes Mellitus and Anemia has most often higher as concomitant disease Diabetes Mellitus. Figure 2. Diabetes Mellitus Disease Figure 3. HTA (Arterial Hypertension)

Components	Correlation value
Glycemi – Triglyceride (Diabetes Mellitus)	0.135
Glycemi – HDL-Ch (Diabetes Mellitus)	- 0.030
Triglyceride – Glycemi (HTA disease)	0.01
HDL-Ch – Glycemi (HTA disease)	- 0.32
Erythrocyte- Glycemi (Anemia)	- 0.13
Hgb- Glycemi (Anemia)	- 0.19

Figure 4. Anemia Disease

Table 6. Correlation value (For figure 2, 3, 4)

In Individuals with Diabetes Mellitus, there is a correlation between the principal analytical components of Diabetes (main diagnosis) and HTA (concomitant disease). In individuals with HTA, there is a correlation between the principal analytical components of HTA (main diagnosis) and Diabetes (concomitant disease). In individuals with Anemia, there is a correlation between the principal analytical components of Anemia (main diagnosis) and Diabetes (concomitant disease). Highest correlation values are observed with negative correlation values – 0.32 (HDL-Ch – Glycemi) in individuals with HTA (main diagnosis) dhe diabet (concomitant disease). Prevalence of diseases are presented in the graph:

Figure 5. Prevalence of diseases in percentage

Diabetes Mellitus is the disease with highest prevalence: 42.2 %. Arterial Hypertension takes second place: 27 % and Anemia takes third: 10 %. With high prevalence are to be mentioned and other diseases such as: Dyslipidemia, Rheumatoid Arthritis, Ca Mammae, Urinary Tract Infection, Chronic Renal Insufficiency, Hepatic Cirrhosis. Other diseases are with a small percentage.

Main Diagnoses	Percentage
Diabetes Mellitus	42.20%
Arterial Hypertension	27%
Anemia	10%
Dyslipidemia	4.80%
Rheumatoid Arthritis	2.90%
Ca Mammae	1.90%
Urinary Tract Infection	1.90%
Chronic Renal Insufficiency	1.60%
Hepatic Cirrhosis	1.10%
Other Diseases	6.60%

Table 7. Percentage of Diseases (as main diagnoses)

Graphical representation of the percentage of individuals for each age group by gender and age for diseases that have a higher prevalence in the study population group.

Figure 6. Percentage of individuals for Anemia Figure 7. Percentage of individuals for Diabete

For individuals with Anemia: with age the number of individuals with Anemia increases. The largest percentage of individuals with Anemia is in the fifth age group, for the female gender. For individuals with Diabetes Mellitus: with age the number of individuals with Diabetes Mellitus increases. The largest percentage of individuals with Diabetes Mellitus is in the seventh age group, for the male gender.

A.Gr	Female (Anemia)	Male (Anemia)	Female (Diabetes)	Male (Diabetes)
I	2.30%	7.10%	-	-
II	4.80%	-	-	-
III	4.80%	7.1	0.60%	0.60%
IV	7.10%	2.30%	1.70%	1.70%
V	19%	2.30%	3.40%	2.80%
VI	16.70%	2.30%	15.90%	14.20%
VII	16.70%	7.10%	26.70%	31.80%

Table 8. Percentage value for Anemia and Diabetes Mellitus

Age group	Female (HTA)	Male (HTA)
I	-	-
II	-	-
III	-	-
IV	0.90%	0.90%
V	7.10%	2.60%
VI	22.10%	9.70%
VII	37.20%	18.60%

Figure 8. Percentage of individuals for HTA

Table 9. Percentage value for HTA

For individuals with HTA: with age the number of individuals with HTA (Arterial Hypertension) increases. The largest percentage of individuals with HTA, is in the seventh age group, for female gender.

Conclusions

Number of types of diseasesas the main diagnosis increases with age. VI and VII age group has a greater number of types of diseases.

Main diagnoses in I, II, III, IV age group have no concomitant diseases (except age group I: an individual with Autism, has Epilepsy as a concomitant disease and age

group IV: an individual with HTA, has Diabetes Mellitus as a concomitant disease. Main diagnoses have more concomitant diseases in the age group VI and VII. With age, individuals with a certain disease are at risk of having other concomitant diseases, causing deterioration of health.

There is a correlation between the main diagnosis and the development of concomitant disease. This is more pronounced in patients with HTA who have Diabetes Mellitus as a concomitant disease, where the value of the correlation between the principal analytital components HDL- Cholesterol – Glycemi is : - 0.32.

In the study population group, diseases with higher prevalence are: Diabetes Mellitus: 42. 2 %, Arterial Hypertension: 27 % and Anemia: 10 %. The prevalence of these diseases is determined by various factors, such as age, gender, genetics., lifestyle.

With age the number of cases with Diabetes Mellitus, HTA, Anemia increases. The largest number of individuals with Diabetes Mellitus is in the age group VII, for male gender. The largest number of individuals with HTA is in the age group VII, for female gender. The largest number of individuals with Anemia is in the age group V, for female gender.

3. Importance of the study

The deteriorating health condition of a disease affect in the metabolic abnormalities and in the emergence of other concomitant disease. It depends on various factors like the age, the gender, sedentary life, lack of physical activity, medical care, daily work, genetic factors. The importance of this study is to conclude and to apply the knowledge for the main disease and the concomitant disease in order to prevent the diseases in early stage and accurate determination of diagnosis for the implementation of a regular medication.

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The psycho-emotional impact that caused the Covid-19 pandemic on nursing students

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Abstract

Preventive measures against the use of COVID-19, such as relocation and online learning, have affected higher education worldwide. The university system in our country has been subjected to several challenges and interruptions of teaching in auditoriums such as the student strike-2019, the earthquake incident-2019 and the pandemic of Covid-19, from March 2020 onwards.

The effect of this quarantine is worse for a student's mental health and happiness because the students can't enjoy what they used to do in the pre-COVID days. The great potential they used in their daily lives is now blocked, we are continuing to study with the help of various digital learning platforms, but are we really being successful in satisfying their needs?

Keywords: online learning, pandemic, stress, reduced motivation, return to normal life.

Aim

This study explores perceived anxiety and stress and investigates student attitudes toward online teachers, enhancing study and student life skills.

Methodology

The study is of a research type, conducted online, with students of Nursing branches, first year, Bachelor. The questionnaire was sent to all freshmen but was plotted by only 56 of them. The questionnaires contained questions about the students' mental health, their skills in operating an electronic device, their concerns and their social life and their relationships with their professors.

Questionnaires have been statistically analysed and their results have been published.

Results

The questionnaire was answered by 56 students attending Bachelor studies, where the majority were female, 91% of them. From the analysis of the answers it resulted that the majority of students (64.7%) did not agree that online learning could be easily implemented. 54% of students agreed that conversation and discussion is very important through online learning.

Only 21% agreed that learning online can be used for clinical aspects. 82% of students think that the interrupting as a result of the pandemic has affected their ability to continue studying online, while 45% of them responded that their hearing ability has decreased during online lessons. About 55% of students think they are capable of dealing with the situation and accepting it and 62.5% of them have the necessary resources and help to study online during this pandemic period. About 52% of students think online study is very stressful and what is surprising (not for good) is the fact that about half of the students consider the communication with friends and the school professors as being very stressful.

About 38% of students understand as the biggest problem when studying online, completing tasks and requests and 40% of them agree that they have been stressed by lack of physical activity, online lessons, fear of losing a loved one, financial problems and from the desire that they have for the return to their normal life as before. All the students want to go back to the auditoriums to continue their lessons as before because they are much more proficient.

Conclusion

In this study, it turned out most medical students had access to electronic devices and were able to use them. We also found that students displayed different levels of knowledge, attitudes and practices related to online learning. The students realised that the engagement in online learning was able to relieve them of their stress and the emotional support from their professors was able to help them out. This study aimed to assess the circumstances of medical students during the COVID-19 pandemic and to assess their knowledge, attitudes and practices regarding e-learning and which proposed a platform for providing medical education during the quarantine. A high level of anxiety and depression was found among medical students. Finally, lack of performance and concentration, decreased motivation to follow the lessons and learn, limited space at home, disturbance by the family and the taking on of multiple tasks and long practices during the pandemic period were the main challenges which students were faced with during online learning.

Introduction

In December 2019, the Coronavirus Disease 2019 (COVID-19) was first reported in Wuhan, Hubei Province, China. It is characterized by pneumonia-like symptoms. The virus spread exponentially, resulting in an outbreak throughout China and the world. Subsequently, on March 11, 2020, World Health Organization declared it as a worldwide pandemic¹.

As of October 2, 2020, there were more than 34.3 million confirmed cases of COVID-19 globally and over 1,000,000 associated deaths in more than 180 countries^{2,3}.

Several countries have responded to the autumnal/winter second wave of the pandemic by imposing curfews or complete lockdown measures in an effort to limit the viral transmission. However, and despite the spark of hope that the newly introduced vaccines have brought, there have been vast repercussions on the economy and education; one of the fields that the pandemic has substantially affected is the education of future medical professionals.

Preventive measures against the use of COVID-19, such as relocation and online learning, have affected higher education worldwide.

Some of the most commonly proposed methods include scheduled live online video lectures with interactive discussions and the utilization of several different programs or self-study online recorded lectures made available online for medical students in each university^{3,4}. However, educators must plan to continue to provide medical education and patient care during the pandemic, and these services should be conducted in accordance with ethical frameworks that are based on beneficence and the professional virtues of courage and self-sacrifice⁵.

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novel challenge imposed on health care systems worldwide (3), have taken an immense toll on the quantity and quality of medical education

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COVID-19 has already triggered the introduction of new methods of learning in medical education. In an effort not to distract the educational process, the academic institutions worldwide have accelerated the development of online learning environment⁷.

The COVID-19 pandemic puts people at risk of developing life-threatening conditions, presenting substantial challenges for medical education, as instructors must deliver lectures safely, while also ensuring the integrity and continuity of the medical education process. These challenges include a fear that medical students may contract the virus during their training and may transmit it to the community. Additionally, students are required to stay at home and to abide by social distancing guidelines.

In Albania, most medical schools have been suspended during the pandemic, and as such, many students are staying at home.

This has disrupted the medical education process and has increased the need to find alternatives. The university system in our country has been subjected to several challenges and interruptions of teaching in auditoriums such as the student strike-2019, the earthquake incident-2019 and the pandemic of Covid-19, from March 2020 onwards.

The effect of this quarantine is worse for a student's mental health and happiness because the students can't enjoy what they used to do in the pre-COVID days.

The great potential they used in their daily lives is now blocked, we are continuing to study with the help of various digital learning platforms, but are we really being successful in satisfying their needs?

The challenge of going through medical school and medical education in general may contribute to the development of psychological distress such as anxiety, depression and stress among medical students; medical students are recognised as an at-risk group for developing anxiety disorders, with significantly larger rates than the general population, even under normal circumstance⁸.

Such initiatives must act as a stepping stone for evidence-based medical education to thrive even more in the future. More large-scale studies from all over the globe are required to accurately depict how this unparalleled period has affected all aspects of medical education. Along with all the difficulties it brought, this pandemic reminded us that human collaboration through science is one of the greatest tools of humanity to deal with threats.

Applying the same collaborative science in education, and specifically in medical education, could raise our optimism for the future of medicine. Education is our

future, or in the words of Christine Gregoire: "Education is the foundation upon which we build our future"⁹.

Discussion

Medical students in Albania are facing several challenges. In this study, it turned out most medical students had access to electronic devices and were able to use them. We also found that students displayed different levels of knowledge, attitudes and practices related to online learning.

The students realised that the engagement in online learning was able to relieve them of their stress and the emotional support from their professors was able to help them out.

A high level of anxiety and depression was found among medical students. Finally, lack of performance and concentration, decreased motivation to follow the lessons and learn, limited space at home, disturbance by the family and the taking on of multiple tasks and long practices during the pandemic period were the main challenges which students were faced with during online learning.

The same is among Chinese college students, 0.9% suffered from severe anxiety and 2.7% experienced moderate anxiety symptoms during the COVID-19 outbreak¹⁰. A meta-analysis of anxiety research studies on 69 medical students showed that 33.8% of them experienced anxiety symptoms when the results were pooled¹¹. Possible reasons for this higher prevalence of psychological illness include the COVID-19 outbreak, the lockdown, and the civil war, which have had a psychosocial impact on medical students in Libya.

Further, our study showed a statistically significant difference in depression and anxiety levels among males and females, with the latter exhibiting more depressive and anxiety symptoms. The large discrepancy between the number of females and males participating in the study might be due to the fact that most of the medical students in Albania are female.

A second reason is that female students are more likely to participate in research and volunteering activities than are male students¹².

The same results are and in Libya, most of the medical students in Libya are female¹³. Students could share their thoughts and experiences under the supervision of faculty members, which would support junior medical students during this difficult time, thereby safeguarding their mental health.

The implication for policy and practice

Academic coaching programs may represent one possible solution. Strategies could be implemented to engage students in continued online learning. However, these initiatives require institutional support and interactive learning, as medical students may be poorly motivated to engage in online learning, and some students may encounter communication challenges.

In contrast to an in-person clinical visit, telemedicine involves a virtual visit, and it can play a major role in teaching medical students and helping them to acquire clinical experience by interacting with real patients, under the supervision of attending physicians¹⁴. Virtual clinical experience may offer advantages for patients, as it is provided with ease and allows for connectivity without the risk of infection

transmission.

Although several studies focused on the impact of the COVID-19 pandemic on medical students, our study aimed to evaluate several outcomes that would be helpful in assessing their current situation, and to examine how the pandemic has affected them.

COVID-19 required us to dig into every area of our medical education system. This is an opportunity for prospective nurses to review the curriculum, and in particular, to align themselves with the knowledge and abilities that they would use throughout their professions.

Limitation

In this study, we observed that most medical students had access to electronic devices and were able to use them. However, our study was performed in a single public nursing school (in Tirana) with specific settings.

Therefore, the results may not be generalized to other nursing school in our country, and they must be validated by further studies in different cities to obtain an overview of the utility of the online learning , as a mode of teaching during pandemic time.

Such replication studies in multiple contexts could help determine whether e-learning can replace traditional medical lectures and provide solutions for the disruption of clinical training. Extensive educational support should be provided to medical students, especially during the pandemic.

The COVID-19 pandemic is ongoing and will continue to disrupt medical education and training. COVID-19 has overloaded the healthcare system and has affected the ability of healthcare providers to provide adequate healthcare services. As we face a third wave of this outbreak, we must undertake several measures and make changes to minimize the impact on medical education and the progression of training.

Conclusions

In conclusion, the outbreak of COVID-19 pandemic has forced a rapid transition to online teaching of medicine and introduction of alternative student assessment methods, while it has created challenges in residency selection and future career plans of students, as well as having a significant psychological impact on them.

In this study, it turned out most medical students had access to electronic devices and were able to use them. We also found that students displayed different levels of knowledge, attitudes and practices related to online learning.

The students realised that the engagement in online learning was able to relieve them of their stress and the emotional support from their professors was able to help them out. This study aimed to assess the circumstances of medical students during the COVID-19 pandemic and to assess their knowledge, attitudes and practices regarding on-line learning for providing medical education during the quarantine.

A high level of anxiety and depression was found among medical students. Finally, lack of performance and concentration, decreased motivation to follow the lessons and learn, limited space at home, disturbance by the family and the taking on of multiple tasks and long practices during the pandemic period were the main challenges which students were faced with during online learning.

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Legal obstacles in “Dissolution of marriage by agreement

Sabina Meta

Abstract

Marriage, as a legal cohabitation, is founded on the moral and legal equality of the spouses, in the mutual sentiment of love, respect and understanding, as the basis of unity in the family. Marriage and family enjoy special protection from the state. According to the Family Code of Albania, marriage can be concluded between a man and a woman who are 18 years or older, the court in the location where the marriage is to be concluded, may, for sufficient reasons, allow marriage prior to this age.

Changes that have occurred in various aspects of life especially in recent years beyond their character, social, economic, cultural, personal, legal, brought the shaking of family relationships, imbalance of them, bringing consequently the dissolution of marriage de facto and de jure.

This paper will address the dissolution of marriage by agreement between the parties, from the procedural-legal point of view according to the Albanian legislation, including judicial procedural obstacles, legal spaces, which make it more difficult as a procedure in front of the court.

In this paper I will address legal inequality, of the treatment of acts by the court, or different procedural-judicial position of the lawyer, mediator in the treatment of the same case, violating the right to a fair legal process.

The paper will conclude with suggestions on the legal framework that facilitate the procedure of dissolution of marriage by agreement on the Court.

Keywords: Marriage, divorce, will, agreement, judgment.

Introduction

Marriage is the basis of creating a family which is regulated by law, enjoys a special status from the moment of marriage until the moment of legal dissolution of this institution. Marriage as a legal coexistence relies on the moral and legal equality of spouses, in the sense of love, respect and mutual understanding as the basis of family unity which enjoy the special protection of the state¹. Marriage can be concluded between a man and a woman who are 18 years or older. The Family Code of the Republic of Albania defines the criteria for marriage (cases of the validity or invalidity procedure), divorce according to law.

Albanian Law provides the ways of marriage which can be divided into 2 (two) groups as follows:

First: Legal marriage in front of the civil registration office clerk. The marriage is concluded before the civil registrar - office clerk, with the free consent of both future spouses according to legal procedure. Before the conclusion of a marriage, the civil registration office clerk announces the act by displaying it in locations specified by the municipality or commune, indicating the parties' identity, their professions, the address of the parties and the address of their future residence upon the conclusion of the marriage, as well as the place where the marriage will take place. The marriage cannot be concluded until 10 days from the day following the announcement. The act

of marriage is the record kept by the clerk of the civil status office in the municipality / municipal unit / commune, which reflects the common, will of the future spouses, expressed in the presence of the civil registrar, according to the provisions of the Family Code². The marriage act is immediately drafted, is signed by the spouses, the witnesses and the civil registration office clerk and is entered in the marriage register.

Legal marriage before the Court: It happens in those cases when for various reasons the spouses are in objective impossibility of the implementation for the standard procedure or are under the age provided by law (for example they are under 18 years old, or objective impossibility to wait for the 10 days announcement) to conclude the marriage according the law, that's why they are addressed to the Court to get married. Future spouses, and the prosecutor submit a request where they reflect the reasons for entering into marriage by court, in this case is the decision of the judge that is entered in the marriage register.

Marriage therefore is defined as a legally registered union between two persons of different sexes, purposely to create a family and live together, so the marriage is the basis of the family, and the family is the basis of society. Spouses are equal in all personal and property relations. They are obliged to be loyal to each other and help each other financially when they need³. The reasons that lead two partners to enter into marriage often are the reasons for the dissolution of the marriage, making it impossible for them to live together and forcing them to go through the divorce.

Issue Nr - 1: Divorce by law. The reasons that push the parties toward divorce

Life existence or different phenomena that surround us, have a birth, development, end, that forms the cycle of life, so marriage as a phenomenon, institute, relationship and legal coexistence with the verification of certain conditions brings as a consequence its dissolution.

Dissolution of marriage coincides with the exercise of legal, individual rights of the parties, who considers unimaginable the obligation to live together, especially in cases where de jure and de facto cohabitation between spouses becomes impossible, so the divorce is seen as a legal regulator way. In these cases, is necessary to regulate by law the damaged relationship which in terms of legal protection, acquires a private and public character for the impact that divorce has, not only on the life of spouses but also in general on society⁴.

The Family Code of the Republic of Albania regulates the institution of divorce, which is considered as the concluding phase of legal cohabitation by regulating the legal consequences that follow. Marriage ends legally in these cases.

Death of one of the spouses: So in order to be in the conditions of dissolution of marriage, one of the spouses must be die, a legal fact that is verified by a death certificate and is registered according to the law.

Declaration that one spouse is presumed dead. Is in those cases when a person is absent for a long time in his place of residence, without having news of where he is, for more than two years, or his absence for a period of 4 years, begins the procedure for declaring him, missing. This procedure begin by an request to declare a person as disappeared or dead may be filed by any interested person (by the notary who has drafted a will by notary act or who has been keeping the oleograph will or the special will) or by the prosecutor in the court of the area where the person, who is requested

to be declared as such, last abode.

The court, within ten days from the filing of the request for adjudication, sends a copy of it to the municipality or the commune where the person requested to be declared disappeared or dead has had his last place of abode in order to announce it in a visible place. The abovementioned request is also published in the Official Gazette as well as at least in one local newspaper. The consideration of the case by the court cannot be made before six months have passed from the announcement of the request or its publication in the Official Gazette. The decision of the court, which declares a person disappeared or dead, is sent for registration to the office of the civil register in which he has been registered, after being assured that its publication has been made in conformity with the above provision, so this fact puts an end to the legal community of material goods between spouses (or persons required to be declared missing), for the reason to facilitate the administration and legal-civil circulation⁵.

Dissolution of marriage: Dissolution of marriage is the most beautiful way when a marriage has died before the spouses go to court. The Family Code provides, criteria, events, cases, occurring in the life of a couple that shake them to the point that make it impossible to live together, the criteria provided by law are not determinative as the only ones for divorce, because according to law is presumed any reason that disables the continuation of legal cohabitation.

Some of the reasons can be quoted as follows:

1. When obligations for loyalty, assistance and cooperation are violated. By marriage the husband and wife gain the same rights and assume the same obligations. From marriage derives the mutual obligation for fidelity, moral and material assistance, for cooperation in the interest of family and legal cohabitation.
2. When the obligations that the spouses have towards the children are not respected, as the marriage imposes on both spouses, the obligation to maintain, educate and bring up the children, according their needs, abilities, desires.
3. When one of the spouses is lazy, violent, or are in the cases of psychological, physical, emotional violence, abuse, humiliation, contempt made from one spouse by the other.
4. Dissolution of marriage for termination of cohabitation Each of the spouses can request the dissolution of marriage due to termination of cohabitation when the spouses have been living de facto separated for 3 years.
5. When between the couples there is no love, trust, reciprocity, loyalty, understanding, respect, coexistence and any other factor cited or not in the Family Code that makes it difficult and impossible legal, moral, social coexistence.

Depending on the relationship that exists between the two spouses will proceed with the divorce. This paper will explain procedurally the divorce between the spouses, steps to be followed and the obstacles or procedural difficulties until the execution, suggesting changes that need to be considered to raise this institute at the level that belongs to de facto and de jure.

Issue Nr 2- Dissolution of marriage with agreement of couples (Uncontested divorce)

When spouses agree on the dissolution of marriage, they submit to the court for approval, together with the request, a settlement agreement that stipulates the terms for the dissolution of the marriage. The request can be submitted by the spouses or their respective representatives. The dissolution of marriage by the free will of the spouses goes through two stages, the pre-court (notary) stage and the court stage.

Pre-trial stage (notary stage) - In this preliminary stage, the spouses have agreed to dissolve the marriage with understanding, cooperation between them, defining the respective rights and obligations depending on whether they have a child. This stage means.

6. The spouses go to the lawyer (to the same or different lawyers) on which they submit their request to resolve the issue by agreement.
7. After that, the spouses go to the notary, with an identity card (this is necessary because the notary has access to the system and can print personal certificates of spouses, family, which are the necessary documents for drafting the draft agreement and submitting the request to the Court).
8. Drafting the agreement according to law No. 110/2018 "On Notary" referring to article 62 of its point, ll) notary... drafts notary acts, power of attorney, contracts, agreements, declarations and other documents required by the interested persons, as well as acts and other actions, which according to the law are in the subject competence of the notary⁶.
9. The content of the Agreement is realized according to article 99 of the law "On Notary", notary acts are drafted based on the free, complete and independent will of the parties participating, as well as referring to the purpose that bring the notary act.
10. The parties voluntarily cite the fact that they agree on the dissolution of marriage, if they have children, express themselves regarding the children custody of one of the parents, the obligation of the other parent to pay alimony, the right to meetings, alimony for the mother if it is in cases of incapacity and economic impossibility, the right to change or not the surname, the division of the marital property, etc.
11. Usually, Agreements made before the Notary contain only rights and obligations regarding the children and the dissolution of the marriage without being explicitly involved in matters of property, a fact which should be viewed critically because if the spouses have placed property during their married life, in an agreement should also be cited and their voluntary division of property
12. After the agreement is drafted, the parties sign it. Notary acts are regularly signed by the participants, in the presence of the notary, after the notary has made its content known to the parties. The signature is accompanied by the full name, surname of the parties and signature.
13. The documentation attached to the agreement are, identity cards of each spouse, personal certificates, marriage certificate, family certificate, personal certificate of each child.
14. After signing the agreement according to the law, they contact their lawyer (or

the same lawyer) for drafting the divorce request based on the agreement

15. When they do not have children, the procedure is easier because the spouses ask only for the dissolution of the marriage and to change the surname (if the surname has been changed during the marriage).

Judicial phase: After disposing of the Agreement, the spouses start the procedures for divorce by agreement and sign the request application in the presence of a lawyer. The Judicial Phase goes through these stages:

16. Drafting of the request by the Advocate according to the Law on Advocacy, based on the Code of Civil Procedure, signature by the spouses in presence of the Advocate⁷. At this stage, the spouses have agreed to terminate the marriage with understanding, cooperation between them, defining the respective rights and obligations depending on whether they have children or not.
17. Depositing the request and written evidence on the court when the judge conducts the preparatory action session
18. The court examines the request, initially hears from each of the spouses separately, then together without the presence of their representatives, and finally with their representatives, if they have any.
19. The court decides on the dissolution of the marriage after determining that each party freely desires to dissolve the marriage and has given their consent. In the same decision, the court approves the settlement agreement that stipulates the terms for the dissolution of the marriage. The agreement must contain the provisions for the care and education of any minor children, financial support for their care and education, provision for alimony if needed and if possible the division of their assets.
20. If the court determines that the agreement does not properly provide for the needs of the children or one of the spouses, it may suspend the judgment for 3 months and request that the spouses make the necessary changes to the agreement. If, after the deadline noted in the paragraph above, the necessary changes have not been made, the court may refuse to approve the agreement and dismiss the request for the uncontested divorce
21. Either spouse can request dissolution of their marriage when they have lived separately for a period of 3 years. A spouse requesting dissolution of the marriage, based on the previous paragraph of this article, should specify in his/her petition the provisions for child support and alimony.

Procedurally and legally these are the stages in which the dissolution of the marriage by agreement must pass always when the spouses are present, but the practice still recognizes cases when the spouses (one of them) at the time of divorce can't be in Albania (when one of the spouses lives abroad and is unable to attend the hearings in presence of the Court, but has only sign the agreement) in these cases how the court should act? Who is this role? In the following case I will present the fact that the Court by following a certain procedure violates the law, the right of the parties to trial in a reasonable time, why not, we will see it in the role of exercising inequality for the same issues that have the same object, as follows.

Issue Nr - 3- Procedure for dissolution of marriage through mediation.

⁷ Neni 126 I Kodit të Familjes.

Referring to the law No. 10385 dated 24.02.2011 “On Mediation in resolving disputes” it results that the dissolution of marriage by agreement between the parties can be done by signing the agreement in the presence of the mediator, where the spouses represent their problems, rights and obligations according to the law, for the care and education of any minor children, financial support for their care and education, provision for alimony if needed.

According to the article nr 2- of the law is cited... the mediator can represent civil and family cases, when the interests of minors are intertwined; b) in matters of conciliation in cases of dissolution of marriage. Being in these conditions, before starting the mediation procedure, the mediator is obliged to inform the parties about the general goals and principles, the role of the mediator and the parties in the process. The parties and the mediator sign the agreement for the realization of the mediation process, where the following must be determined: a) the generalities of the parties to this agreement and their representatives; b) description of the object of the dispute; c) acceptance of the principles of mediation, according to this law and of the appointed mediator; ç) place of mediation; d) mediation costs.

After the completion of the mediation procedure, when the parties have agreed, they sign the agreement with their rights and obligation that they assume according the agreement. The agreement defines: a) the parties; b) description of the dispute; c) the obligations and conditions that the parties impose on each other ç) signature of the parties and the mediator. The agreement must contain clear and precisely defined obligations⁸. This agreement is binding and enforceable to the same extent as arbitral awards. If the agreement respects the conditions set out in Article 22 of this law, it constitutes an executive title and, in this case, the bailiff service is charged for its execution. Therefore, this procedure (dissolution of the marriage by agreement before the mediator and the signing of the agreement), constitutes an executive title and from this moment, the mediator has the right to address the Court with a request for “issuing an execution order” and proceed according to law bailiff service.

Issue No. - 4. Problems and inequality in the handling of similar cases by the Court Legal, procedural issues that are realized during the dissolution of the marriage by agreement change or are depending on whether the procedure is presented by a lawyer or mediator.

First: Obstacles and procedural violations, difficulties made by the Court, when the request is submitted by the Advocate of the litigants:

When the spouses are not present at the conciliation hearing, the court dismisses the case, ignoring the position of the lawyer who has a power of attorney in the presence or absence of the parties. A court in these cases does not take into consideration the will of the parties to be represented in their absence, but dismissing the case violates the right to trial by law. In these cases, the court does not consider (and violate the law) in my opinion because it does not consider lawful throughout the process, the power of attorney given by the parties to the lawyer, to represent them in presence and absence during the all process, or the agreement made before the notary according the law, the request application for the divorce signed in presence of the lawyer, or the fact that they are represented by the same lawyer. But when the

⁸ Neni 22- I Ligit Nr 10385 dt 24.02.2011 “ Per Ndermjetesimin ne zgjidhjen e mosmarrveshjeve” me ndryshimet perkatese.

mediator appears in the trial there are no such obstacles, because he can be heard in person even without the presence of the parties, because their will is manifested in the agreement they have signed in presence of the mediator, which according to the law is an executive title. So we can see the different treatment of the representatives of the parties from the court.

Second : The differences in the treatment by the Court, of agreements made by notary and mediator.

- The agreement made in presence of the notary is object of judicial investigation but it's not the same about the agreement made in presence of mediator because it is an executive title according the law.
- The agreement before the notary requires the approval of the court, If the court determines that the agreement does not properly provide for the needs of the children or one of the spouses, it may suspend the judgment for 3 months and request that the spouses make the necessary changes to the agreement. If, after the deadline noted in the paragraph above, the necessary changes have not been made, the court may refuse to approve the agreement and dismiss the request for the uncontested divorce.
- The agreement before the mediator does not require the approval of the court, because is an executive title, based on article 510, 511 of civil procedure code. Enforced execution can be made only on the basis of an executive title. Executive titles are... e) other documents according to specific laws, are executive titles and authorized the Bailiff to carry them out.
- The procedure followed by the lawyer is much longer, it included the orientation of the parties to the agreement, signing the agreement in presence of the notary, signing the request divorce petition in presence of the lawyer, waiting the development of the trial, and after the decision (when it take the final form, that constitutes an executive title), asking an Order of Execution according to the law, article 511 of civil procedure code of Albania, to begin the Executive order according the law who is enforced by the state or private judicial enforcement service through the enforcement bailiff, based on the request of the creditor (in this case, couples).
- The procedure followed by the mediator is much easier, couples go to the mediator, sing the agreement, and that's all, and the agreement is transformed in executive title so the mediator can go to the court to take only the Order of Execution according the article 511 of Civil Procedure Code and to begin the execution by law.

So as it turns out, the procedure for dissolving a marriage by agreement is the same, but the evaluation of the agreement varies from the court, a little for the effect of law, or for the effect of procedure, and same times cause of the court practice, but all this violate equality of the parties according to the law or the right to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law, according to article nr 6/1 European Convention on Human Rights⁹.

Legal violations committed by the court in my opinion are

1. The right to have representation by proxy, according Article 70 of Civil Code of Albania, so if the proxy is the document through which the representative,

⁹ European Convention on Human Rights.

by his free will determines the character and extent of the scope/titles of representation(including their presentation on the court in absence of they presence, why the court should to dismiss the proceedings, according to the 179 article of civil procedure code of Albania, based on reasoning, when both parties, without any reasonable cause, fail to appear at a preliminary hearing or a judicial hearing and it turns out that they have been regularly notified, the court shall decide to dismiss the proceedings (regardless of the fact they have made a proxy to be represented by the law throughout the process).

So this violate the right of any person that raises a claim, to be heard on the foundation of such claim, because no party can be tried without being heard or without being summoned to trial, The parties may defend themselves, except for the cases when representation is mandatory.

2. Different evaluation of the according, depending on the fact if the proxy is made by the notary or the mediator.

The according made in front of the notary is a legal act made by law, the parties go to the notary office, which identifies the present parties, and after that, drafts the agreement based on law, which the parties sign it of their own free will, if they agree, after that the parties do to the lawyer to sing the request of the divorce, all this procedure is subject to trial, when the court also examines the will of the parties, and the resume of the agreement. After a regular process the court takes a decision, only In these case, and if the parties don't appeal by the Court of Appeal, the decision of first grade, will be a title executive and can be executed by the executive order.

The according in front of the mediator is simpler, because after the parties' sign, this according transformed in title executive, without a process by the court. As we can see, is a big difference on the evaluation of the same act by the court.

So is necessary to change the manner of proceeding by the court, because this way is in contradiction with Article 18- of constitution of Albania. All are equal before the law. No one may be unjustly discriminated against for reasons such as gender, race, religion, ethnicity, language, political, religious or philosophical beliefs, economic condition, education, social status, or parentage. No one may be discriminated against for the reasons mentioned, without a reasonable and objective justification.

3. The right to have a lawyer and to be represented by the lawyer in every sentences of the process, so if the court dismisses the case in absence of the parties, violated the law no. 55/2018 On the profession of Lawyer in the Republic of Albania and the right of the parties to be representative in conformity with legal provisions according article 92, 96 of civil code of Albania (Representatives with the power of attorney of parties can be: a) private lawyers) and Article 70 of Civil Code of Albania.
4. Different evaluation of the same acts and documents represented by the mediator and the lawyer in the court.

Suggestions. The reason for carrying out this paper was to identify a deadlock that exists in this category of trials and through which make it difficult for citizens to exercise their rights, benefit.

My suggestions consist of the following:

1. Unification of the legal validity of the agreements made by the parties in front of the mediator, or notary office .

2. The right to draft agreements even by a lawyer with the same legal force as the mediator or the notary.
3. Unification between the judges of judicial procedural practice to not dismiss the case if the parties aren't present at the court, but are represented by their lawyer.
4. Legal procedure of uncontested divorce will be more easily than divorce (by a lawsuit, in these cases parties don't agree about the divorce). So it's not necessary to do a lot of court hearings when the parties agree between them about the divorce.
5. Legislative changes in the Family Code regarding the procedure of dissolving the marriage amicably, reducing to a maximum the procedures and to allowed court hearings in absence of the parties when they are represented by the lawyer, in the same time unification of these practice in all same cases.
6. Agreement in front of notary must have the same value as the agreement made by the mediator, both of them will be an executive title, and the lawyer or the mediator having the same right to go on the court asking only for an executive order by law.

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Conversational organization

Analysis of the change of speaker (turn-taking) in conversations

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Abstract

Talking to one another - having a conversation - is the central activity in our social life. The popular belief is that our everyday conversations are chaotic and largely disorderly. It was only after a thorough academic study of everyday conversations recorded on tapes that the phenomenon of the 'orderliness' of conversations came to light. But how are our everyday conversations organized? How do we manage to make our conversations relatively unproblematic and interactive? Conversation analysis deals with these questions about the systematic order of conversations in everyday interaction situations.

Since its development at the beginning of the 1960s, this has developed into an established branch of research that opened up new fields of research, particularly in linguistics and sociology, but also in psychology and anthropology

In this work we are concerned with the following question: What does turn-taking look like in conversations? How does the turn capture and the turn defense by actants see in institutional communication. And what about the communication between actants. We will go into detail in our analysis on some features that are directly concerned with turn-taking.

Keywords: Analysis, change speaker, conversation, organization.

1 Introduction

The subject of the present work is the analysis of transcribed original recordings of everyday conversations in the working world with regard to the change of speaker, i.e. turn-grabbing and turn-defense of speakers. If everyone speaks at the same time in a discourse, the chances are slim that the respective communicative purposes will be achieved. There are certain rules for the success of a conversation, whether in the cultivated conversation or at school. They are simply assumed. So it is part of good manners to let others speak before you speak.

Failure to comply with rules like these can have immediate consequences. One is rebuked or even punished. How does the individual know what these rules look like? Even in childhood you are constantly confronted with: "Don't interfere when adults are talking!", "Wait until I've finished!", "Now I'll tell my story, and then you can tell yours."

Everyone probably still knows these parenting measures. But exactly these aim at one thing; polite interaction with others. And courtesy is always a prerequisite for the up-bringing. This now seems to regulate the change of speech. You let the other person finish speaking, or at least deal with his topic, before you start talking yourself. In institutions such as schools or courts, this change of spokesperson is even more strictly defined. Because in institutions it is formalized to such an extent that it is clear to everyone involved who is allowed to speak and when. The well-kept entertainment

does not have any major problems either.

Comments like this: Sorry, I did not understand you!

You never let me speak

Let me finish.

I am / wasn't finished yet.

are a matter of course in natural conversation.

The listener interrupts the speaker and asks him to explain what has been said again, the speaker wants to finish his speech and not be interrupted. The complexity of such actions is usually no longer noticed. It is a complicated sequence of processing steps and signals that accompany the change of speaker. This mechanism, called turn-taking, forms the basis of the conversation.

Based on the inability to follow the speaker's statements, immediate feedback signals, such as a facial expression showing incomprehension, are initially sent. If the speaker does not react in the desired way, signals such as raising hands and general body tension follow. If the speaker does not finish his turn at the next sensible point, the listener takes himself

the turn, that is, he interrupts the speaker.

This is usually also done by a gesture with a corresponding meaning, immediately followed by the above utterance. While there is turn-taking in almost every form of conversation, the richness of this phenomenon is most evident in natural 'face-to-face' conversation. The complexity of such actions contrasts with their elementary importance for a functioning dialogue.

In order to investigate the change of speakers, I need a theoretical background. The investigation of the turn mechanisms is often seen as the domain of conversation analysis. Therefore, I will first deal with the conversation analysis and then with the corpus of this work.

2 The corpus

The corpus on which the empirical analysis is based consists of a total of 12 transcripts. (see Attachment). The transcripts were created from authentic everyday conversations between employees of a company.

2.1 The transcription process

The recordings are transcribed according to the HIAT method by Ehlich / Rehbein (1976). Score writing is used in this procedure. Each speaker receives a line in which his / her utterances are entered. If two or more speakers are speaking at the same time, a line is entered under the line of the first speaker for each additional speaker. Pauses in the utterances are indicated by periods. Short pauses are marked by a dot ". 'indicated, longer pauses by two dots' ...'. If a pause is particularly long, several points'' are set in the transcript. The time is given in double brackets above the dots ((5s)). A slash is used for terminations and corrections' / '.

Stronger emphasis on a word is indicated by underlining it, e.g. house

⊙ rising tone progression

\ falling tone gradient

⊙ rising-falling tone progression

⊙ falling-rising tone progression

= Interruption

3. Benefits of conversation analytics

Talking to one another - having a conversation - is the central activity in our social life. The popular belief is that our everyday conversations are chaotic and largely disorderly. It was only after a thorough academic study of everyday conversations recorded on tapes that the phenomenon of the 'orderliness' of conversations came to light. But how are our everyday conversations organized? How do we manage to make our conversations relatively unproblematic and interactive? Conversation analysis deals with these questions about the systematic order of conversations in everyday interaction situations.¹ Conversational analysis is now firmly anchored in the canon of linguistic and sociological methods for researching verbal interaction. Conversational analytical investigations have done pioneering work in the exploration of structures of conversation, discovering numerous phenomena and creating categories that are indispensable from the scientific point of view of conversations.² In recent years it has also been shown that the conversation analytical method is also suitable for dealing with classical linguistic questions, for example from the areas of syntax, prosody or phonetics research, in an innovative and promising way within the framework of an 'interactional linguistics'.³ Conversation analysis has its origins in American conversation analysis with its most important representatives Sacks, Schegloff and Jefferson (1974) If you take a closer look at the term "conversation", you will find the definition: "sociable, easy, somewhat formal conversation, well-kept conversation; (...) Latin *Conversatio* "Dealing, traffic" ⁴ This makes it clear that the entire conversation analysis actually only refers to the "cultivated conversation", the "small talk". However, its translation and its associated reception in the German term "conversation" is now becoming problematic.

Because the term "conversation" has a more extensive meaning than "conversation". In everyday German there is the "sales talk", the "doctor talk" and many other forms. As a result, the term "conversation" achieves a certain degree of ambiguity. In everyday language we find the expressions "dialogue" and "conversation"; but they have a more restricted meaning than "conversation". Dialogue means above all the serious conversation about a meaningful topic, "conversation" more the conventional, superficial and non-binding conversation (at least in German)⁵ The word "conversation" is therefore more neutral in its meaning than the terms "dialogue" and "conversation".⁶ Henne / Rehbock understand "conversation" to mean any verbal, dialogical and topic-centered interaction..⁷

4 Functional analysis of turn-taking

4.1 Terms

Sacks / Schegloff / Jefferson have published a basic article that is much cited to this day: (*A simplest systems for the organization of turn-taking in conversation* 1974) on the organization of turn-taking. From the investigation of extensive data material, transcriptions of dialogues, they derive a system of rules that defines the change of speaker. The model proposed by the authors has a very simple structure. It consists of two components and a set of rules:

(1) The construction of turn constructional units (TCU), i.e. units that form a turn. These can be of different sizes, from one word to complex formulations. It is assumed that the grammatical sentence structure has a special meaning as a turn construction unit. The grammatical rules lead to limited, in most cases relatively short units. At the end of each construction unit there is a place for a possible change of speaker (transition relevance place, TRP).

(2) At each TRP, the following rules apply to the distribution of the right to speak:

(a) The current speaker (A) selects a next speaker (B). At the end of the turn, B has the floor.

(b) The current speaker does not choose a next speaker, but leaves the regulation of the turn distribution to the self-selection of the others. Who ever starts first wins the right to speak.

(c) If the current speaker (A) does not select a next speaker (B) and there is no self-election of a next speaker either, A has the floor again.⁸

This system is still the basis of all turn-taking theories today.

Franck / Franck proposed an alternative to the "mechanistic" model of the Sacks tradition in 1986: they sketch a "negotiation theory of conversation" based on the economic principle of the theory of cooperative games and connected with the rationality assumption of the Gricean cooperation principle.⁹ This model does not conceive the change of speakers in conversations - as in the tradition of Sacks, Schegloff and Jefferson (1974) - purely mechanistically, but rather regards the respective organization "as a means for the purposes,"

those that the participants have as the actual purposes of the conversation"¹⁰

An alternative model also comes from psychology. It is not just rules that determine the change of speaker, but rather it is mediated and negotiated between the conversation partners by means of signals. Duncan¹¹ tries to develop a first signal-based model of turn-taking. He differentiates between three signal types, turn yielding (within-turn), at-tempt - suppressing (continuation) and back - channel, and derives rules from empirical data on how conversation partners use and interpret signals of this type

Duncan not only traces the movement of signals for the turn-taking process, but also names a whole series of these signals, which he calls cues:

- Turn-Yielding: viewing direction, changing the pitch at the end of a phoneme clause, lengthening the last syllable, hand gestures, stereotypical expressions such as: "you know" etc.
- Attempt suppressing: raising the pitch and volume, hand gestures, stereotypical expressions such as: "as follows...." "Etc"
- Back-Channel: nods of the head, paraverbal expressions, stereotypical expressions etc..¹²

In order to be able to analyze the turn-taking in the conversations I have recorded, the term turn in particular has to be narrowed down more precisely. First of all, a *turn* can be defined as *speaking time between two changes of speaker*.

By a turn we mean a contribution to the discourse with prepositional and illocutive content that a speaker with the right to speak makes, whereby the limits of the contribution are given by a previous change of speaker or the start of the conversation and the subsequent change of speaker or the end of the conversation.

A turn occupies at least one position in a pattern of action, that is, linguistically each turn has

at least the extension of a minimum communicative unit; a turn can also be constituted by a chain of actions. (Speech), which linguistically corresponds to a sequence of communicative minimal units¹³

Conversation analysis tries to reduce this definition. Hen / Roebuck see the break as a criterion for defining a *turn*. They differentiate between breaks in the turn and outside breaks. *Pauses in the turn*, which the speaker inserts during the turn, e.g. to take a breath or to rearrange his thoughts, do not signal a change of speaker. The listener recognizes it by the fact that the speaker's utterance is syntactically, semantically and / or illocutively incomplete. In contrast, there is an outside pause between two turns. It can be recognized by the fact that after the break action and presentation semantic differences and / or turn signals, semantic, syntactic, prosodic, facial or gestural signs are combined.¹⁴

An outside break is therefore not absolutely necessary for a turn to be completed. The speaker himself indicates his turn completion. For example, he can verbalize an augmentation of speech action such as *yes, no, not true* or *or*.

The intonation (falling intonation) also gives the listener an indication of the end of a turn. However, the speaker can also directly signal the completion of his turn by realizing a phatic ellipse. The length of a turn is also not fixed. It can be several sentences or just one word (e.g. *no!*)¹⁵

In *turn-taking by self-choice*, a person simply takes the turn. This can lead to problems, especially in discussion groups with more than two actors, as often after a turn has ended several speakers try to seize the right to speak at the same time by self-selection. This can lead to crashes, simultaneous sequences and the like. to lead. Repair mechanisms are in place to remedy such "errors" during turn-taking. In this way, a simultaneous sequence can be eliminated by one of the speakers breaking off his turn.¹⁶ Depending on the nature of their course, the following options arise¹⁷:

- The „smooth change“

The speaker change takes place without a simultaneous sequence, i.e. the speaker transfers the right to speak to the listener, who in turn takes over the speaking role. This can be done through external assignment or self-selection. In the case of a smooth change, *speaker 2* (S 2) connects his turn directly to the turn of *speaker 1* (S1).

- Change of speaker after a break

The speaker ends his conversation step. The listener only takes on the speaking role after a clear pause (this does not mean the short pause for thought or decision-making, which often occurs after a question is answered.) When switching to a pause, S2 starts its turn only after the turn - There is a pause at the end of S1.

¹³ Zifonum, Gisela/ Hoffmann, Ludger/ Strecker, Bruno (1997) *Grammatik der deutschen Sprache*. Bd. 1, In: Schriften des Instituts für deutsche Sprache. Berlin, New York: Walter de Gruyter, p- 469.

¹⁴ Henne, Helmut/Rehbock, Helmut (1982) *Einführung in die Gesprächsanalyse*. Berlin, New York: Walter de Gruyter, p.197.

¹⁵ Zifonum, Gisela/ Hoffmann, Ludger/ Strecker, Bruno (1997) *Grammatik der deutschen Sprache*. Bd. 1, In: Schriften des Instituts für deutsche Sprache. Berlin, New York: Walter de Gruyter, p. 476 f.

¹⁶ Jefferson, Gail/ Sacks, Harvey / Schegloff, Emanuel A. (1974) *A simplest systematics for the organisation of turn-taking for conversation*. In: Bright, William (Hg.) *Language. Journal of the Linguistic Society of Amerika*. Bd. 50. Baltimore: Waverly Press, p.700.

¹⁷ Brinker, Klaus/Sager, Sven (1989) *Linguistische Gesprächsanalyse*. In: *Grundlagen der Germanistik*. Berlin, Erich Schmidt, p. 60 ff.

vgl.dazu auch: Henne, Helmut/Rehbock, Helmut (1982) *Einführung in die Gesprächsanalyse*. Berlin, New York: Walter de Gruyter, p.195.

- Change of speaker after interruption

The listener tries to take over the conversation step at a point in time at which the speaker does not want to hand it over, but intends to continue speaking. Since the listener's attempt to interrupt is not immediately accepted, the result is a more or less long simultaneous sequence. In such cases, there is only a change of speaker if the listener asserts himself.

With these three types of speaker change, a turn change is expected, since in all three cases S2 claims the right to speak.

If an actor now wants to take the right to speak, but the current turn has not yet been completed, he can start in the form of an overlap at different points of the previous turn. This usually takes place in a turn - transition - relevance - phase (TRP). This can always be accepted when a communicative minimal unit has been completed, such as an intonational caesura marking (sentence pause, border tone pattern, reduction in volume) or a non-verbal transition signal (trunk /, head /, gaze)¹⁸

Only the types of change are relevant for my analysis, namely 1) "smooth" change, 2) change after a break and 3) change after an interruption.

4.2 The smooth change

The smooth change, which according to Duncan¹⁹ (: "smooth exchange of speaking turns") occurs when the change takes place without a pause in simultaneous conversation steps, ie when a) the speaker gives a "turn signal", b) the listener takes the role of the speaker takes over and c) the speaker gives up his conversation step and becomes the listener.²⁰

The three types of smooth change²¹: a) seamless, b) overlapping, c) caesurized change are each given an example from the conversations:

a) The seamless change

In the turn-takings that I have analyzed, the smooth change - one speaker ends his turn, the next begins without gaps - occurs frequently.

Transcript 1

[4]

A [	(Sorry, so.....a..../)
B [It took us about a week to do this.	/
C [	I say / but then I say /

[5]

A [
B [
C that we manage to assemble the devices on time this time too

Speaker B clearly finishes his turn in segment 4. Thereupon, by self-selection, speaker C reacts to the statement made by speaker B. At the same time, however, another

¹⁸ Zifonum, Gisela/ Hoffmann, Ludger/ Strecker, Bruno (1997) *Grammatik der deutschen Sprache*. Bd. 1, In: Schriften des Instituts für deutsche Sprache. Berlin, New York: Walter de Gruyter, p.479.

¹⁹ Starkey Jr. Duncan (1973) *Toward a Grammar for Dyadic Conversation*. In: *Semiotica* 9, p.30-33.

²⁰ Henne, Helmut/Rehbock, Helmut (1982) *Einführung in die Gesprächsanalyse*. Berlin, New York: Walter de Gruyter, p.193.

²¹ Ebenda, p.193.

speaker A tries to take over the turn. When speaker C notices this, he breaks off his previous sentence construction (I say) in order to continue with a construction with which he emphasizes the speaker's dictic aspect - *I* -. This shows that the turn has now been assigned. He can finish a turn without any problems.

Transcript 2 segments (2) and (3) show a smooth change through self-selection.

Transcript 2

[1]

A [I brought you a copy of the work instructions

[2]

B [I got it a long time ago

[3]

A [oh, by whom?

[4]

B [from Mr. Mahl, our production manager

Examples of a smooth change through external assignment can be found in transcript 2 in segments 3/4 and 6/7/8

[5]

A [oh then you can continue with the assembly, or?

[6]

B [Yes / Yes. I've already started

[7]

A [when did you start

B [Oh since

[8]

B [Seven o'clock

These examples are question-answer sequences that are implemented directly.

In transcript 3, too, there is a smooth change in segment 2.

Speaker A makes no further claim after completing his turn. Speaker B does not expect him to endanger his own turn. After he has got his turn, he begins with the propositional part of his statement.

Transcript 3

[1]

A [I think this decision is the right one, so we should do it again

[2]

A [consider so that no misunderstandings arise.

B [I would / suggest something (here)

[3]

B [As a precaution, we can call the warehouse again to confirm the order

Transcript 4

Speaker A's contribution is syntactically - intonational as well as semantically closed.

Speaker B takes over the right to speak by answering the initial question from speaker A.

[1]

A [yes, I know, quality assurance is very important. But why do we have to each

[2]

A [Fill out the same forms on the day. Every day the same! This is a piece of paperwork...

[3]

B [We have to document everything on an ongoing basis. You know it You don't need to be angry

b) The overlapping change

The listener interrupts the speaker at a point in time when he only has to say redundant content, albeit grammatically necessary, when his step in the conversation is therefore over for an attentive listener (overlapping change; Sack / Schegloff / Jefferson 1974: "slight overlap ")

Transcript 5

[1]

A [the devices are very practical

[2]

A [and above all, very easy to use

B [yes, yes, right. They are also very compact

Transcript 6

[1]

A [We did the new job. 500 pieces of devices have been delivered to America and

B [Yes, very good

[2]

A [we plan to start the second job next week

B [I think that's really good. We can

[3]

B [order the items from now on, right?

Transcript 7

[1]

A [we got the order a week ago and we have to as soon as

[2]

A [deliver the goods as possible. In the meantime, those in the warehouse should have received the delivery notes

B [Mr Pfeifer, we don't have any nebulizers in stock in the warehouse, and so quickly

[3]

A [prepare

B [we cannot manage a quantity of 20,000 pieces. You know very well that in

[4]

B [only works one shift during assembly and ...

All three examples have some form of overlap. The second speaker only starts when

the end of the previous turn can be foreseen in terms of content and syntax.

Transcript 8

[1]

A [we tried all day but it didn't work. Time did the computer

[2]

A [not working, sometimes this strange machine there, that annoyed me so much that it made me /

B [Sò / you have to

[3]

A [above all, you should be finished soldering the motors by Friday, and we can do that

[4]

A [not / certainly not and I know...

B [you probably have to try it differently. We also have in our department

[5]

B [had the same problem. Now watch out, you could....

Already in segment 2, speaker A signals his entry into the conversation. With *So* he conveys the end of his listener readiness, but he waits patiently with the hope that speaker B will react to his listener signal. Since this is not the case, it starts in segment 4

now the attempt to get the turn by changing with an overlap.

c) The caesurized bill of exchange

The listener takes over the conversation step after a brief phase of thinking or decision-making, which was to be expected according to the content of the preceding conversation step (e.g. after a factual question) (caesurized change; Sacks / Schegloff / Jefferson 1974: "slight gap")

Transcript 9

[5]

A [I just can't believe that, that's un--

B [yes

[6]

A [understandable, (.) yes

B [you can ask Mr. Mahl or (.)

4.3 Change of speaker after a break.

Pragmatics differentiate between indoor and outdoor breaks. While a speaker uses the indoor pause to sort his thoughts. To take a breath or to give what is said more space to be heard, the outside pause stands for the end of the turn. Thus, of course, there is always the possibility that a pause is misunderstood.

The following example illustrates this misunderstanding:

Transcript 10

Speaker B takes the turn in segment 2 after speaker A has paused (yes, I think now ...), but speaker A reacts as if he were interrupted by raising his voice (and therefore) (segment 2). Speaker B finishes his turn.

[1]

A [the customers are very satisfied because we delivered everything on time

[2]

A [and actually in perfect quality (...)

B [yes i think now

A [And so I would suggest we..

After a longer pause (approx. 25 seconds), speaker B takes on the role of speaker, shifting the topic. (Transcript 9)

[1]

A [you made a mistake there

[2]

B [that is, ah, I am not very familiar with this SAP system, me ((...25...))

[3]

A [Anyway, with the new things is always difficult at the beginning. The old system was mine

[4]

A [somehow more familiar

If there is a pause after the end of a conversation step, the change, i.e. the assumption of the speaking role by one of the previous listener, is only one of three possibilities; the pause can also last as a simultaneous silence of all and mean the end of the conversation or it can be ended by a new conversation step by the previous speaker.²²

4.4 Change of speaker after an interruption

Transcript 10

Speaker A states: we can offer extra services by being interrupted by speaker B before he can articulate the content of the subordinate clause started with. Since speaker A breaks off his conversation step without continuing it later, a real conversation step change takes place here by interruption.

[3]

A [we can also offer extra services by=

B [No you don't do that. That is

[4]

B [very time-consuming and, above all, cumbersome

Speaker A starts a question. Using a short pause, speaker B interrupts the still incomplete speech made by speaker A.

[1]

A [How can you tell that the fan wheel of the device is broken? Is it because of the noise or

=B [No, no

[2]

B [simply because of the lack of air pressure that the device has to bring

Transcript 12

[1]

²² Henne, Helmut/Rehbock, Helmut (1982) *Einführung in die Gesprächsanalyse*. Berlin, New York: Walter de Gruyter, p.195.

A [that upsets me. The order number of the aerosol devices is not on the
[2]
A [Delivery note ^ they just forgot and it's difficult for me to die
B [I beg your pardon^
[3]
A [Order number can be found ^, although / yes
B [you could call the company in Starnberg again^
[4]
B [it is enough if you give us the date of the order and we will find the number ourselves

In segment 3 there is an overlap between speakers A and B, which leads to the loss of the right to speak and speaker B to take over the gymnastics. The connection of a subordinate clause (introduced by *though*) planned by speaker A is not implemented. Speaker B is successful in his attempt at self-election, speaker A is interrupted and gets out, and speaker B realizes his turn.

5 Conclusion

Conversations have a great potential for investigation. The subject of turn-taking, which we have dealt with in this thesis, is of course very extensive and leaves many questions unanswered. Our attempt to take a closer look at the change of speakers in everyday conversations at a company just touches the surface of the topic.

The rules of the turn-taking are not always generally applicable. They mostly relate to the well-kept conversation, although the examples have shown that the rules are often broken. Overlaps and interruptions are part of natural communication.

Interrupting the turn is not always seen as impoliteness, but as a necessary act to repair a failed communication. This must be done immediately.

It is to a large extent the permanent feedback and the active handling of the change of the turn that makes a counterpart appear as an attentive communication partner.

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Freedom of establishment in the EU

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Abstract

Freedom of establishment is the second expression of the freedom of individuals and should allow enterprises and independent professionals to settle in the territory of the Union to practice a profession. Since 1974 the ECJ has recognized in the *Reyners* case, that the prohibition of discrimination within freedom has a direct effect on the Member States, in such a way that Union citizens can be addressed directly. The rules of freedom of establishment bring not only in the relationship between the citizen and the state a direct effect, but also in the relationship between private persons. Otherwise, as the ECJ has decided in “*Walrave & Koch*”, the uniform exercise of freedom of establishment would be jeopardized.

Keywords: Freedom of establishment, market, EU, Albania.

Introduction

Article 49 of the Lisbon Treaty stipulates that restrictions on free settlement are prohibited. Freedom of establishment applies not only to natural persons, who are nationals of a Member State, but also to legal persons, which are headquartered in one of the Member States. For legal entities, freedom of establishment also includes the right to establish agencies, headquarters or branches of companies in one of the Member States. Freedom of establishment under Article 40 of the Lisbon Treaty includes “accepting and practicing independent professions as well as establishing and running enterprises ... according to the rules of the host country for its citizens”. Secondary freedom of establishment includes the aforementioned right to establish companies, agencies, headquarters or companies’ daughter in another state.

Freedom of establishment applies to all-natural persons, who are nationals of a Member State. Residence does not matter. Freedom of establishment also favors legal entities. This is especially true for all companies, which are established under the legislation of the Member States and which

have their headquarters, the administration office or the office of the company in the territory of Union. Commercial companies include civil law companies, of commercial law and other legal entities of public and private law as long as their main purpose is monetary gain. Article 54 of the Lisbon Treaty stipulates that companies and natural persons are equal before the exercise of freedom of establishment. Citizens or companies from third countries do not have the right to decide. The rule of Article 49 point 2 of the Lisbon Treaty stipulates that the host state must allow freedom of establishment as defined, which also apply to its citizens, according to the prohibition of discrimination. Not only direct discrimination but also indirect discrimination is prohibited. The national rule qualifies as direct discrimination, which sets as a condition citizenship for admission to a particular profession. Thus

the CJ recognized *Eyners*¹, *Thieffry*² and *Patrick*³ relatively quickly in its decisions, that affected persons should be allowed to practice the independent professions of lawyer and architect in the host countries, because they met all the conditions except citizenship. Indirect discrimination means neutral rules, which affect foreign nationals more strongly than domestic ones. In addition to the prohibition of discrimination, freedom of establishment also contains a prohibition of restriction. In this way the ECJ recognized since 1984, that a national rule prohibiting the establishment of certain law firms, opposed freedom of establishment, although it applied equally to natives and nationals of other member states.

The ECJ at the same time classified a non-discriminatory rule for the recognition of an academic degree taken by another Member State in breach of Article 49 of the Lisbon Treaty, because it hindered the implementation of the Union's fundamental freedoms or made it less attractive.⁴

On the prohibition of discrimination and restriction of the freedom of establishment of natural persons practicing independent professions is the same as the freedom of employees. In this case it is especially about travel and residence rights, which must ensure that the natural person practicing an independent profession is accepted and stays in the host country according to the rights determined by the freedom of establishment. In addition, it is worth noting that Directive 2004/38 applies even for natural persons practicing independent professions. In this way the accompanying rights belong not only to the natural person who practices the profession independently, but also family members.

Ordinance 883/2004 also applies to independent professions for the coordination of social security systems (see above). The Directive on the Recognition of Professional Qualifications is also relevant for natural persons practicing independent professions, as mentioned in Article 53 of the Lisbon Treaty, according to which the Council of Europe issues directives which facilitate the exercise of independent activities.

As mentioned above, natural persons have the same treatment as companies within the framework of freedom of establishment (Article 54 of the Lisbon Treaty).

Unfair discrimination or restrictions addressed to companies of other EU member states, are not allowed. In addition, companies are classified as holders of rights and obligations, for signing contracts and running processes.

Headquarters transfer and freedom of establishment

Of particular importance is the freedom of establishment in the context of the transfer of headquarters from one-member state to another member state within the EU. This process has been problematic especially due to various theories, such as headquarters theory and founding theory.⁵

Headquarters theory stipulates that the company will be subject to the law of that state within whose territory the company's headquarters are located. Theory of establishment in the opposite, determines that the existence of a company will be subject to the law of that State in whose territory the company was founded.

In the *Daily Mail* decision of 1988, the ECJ was of the opinion that Article 49 TBE together with Article 54 of the Lisbon Treaty, does not give companies any right to transfer their headquarters to another state and thus keep their commercial form unchanged.

A decade later the ECJ ruled in the Centros case differently: A couple living in Denmark had founded a trading company called Centros⁶ in the UK. The couple thus sought registration in the commercial register of a branch of this society in Denmark. This registration was not accepted by Denmark on the grounds that the company-Centros was founded in the UK for the sole reason of avoiding strict rules of their establishment in Denmark and because it never exercised its activity in Britain.

ECJ requested the use of freedom of choice for Centros, although it was established merely as a non-commercial company in the United Kingdom. In this way Denmark was obliged to carry out the registration of the Centros branch in the commercial register.

The Überseering⁷ case also dealt with freedom of establishment based on the theory of headquarters and establishment. Überseering is a Dutch company that transferred its headquarters to Germany.

Germany which follows the theory of headquarters and thus did not recognize the transfer of this company, according to the argument that the company should have been established under German law was classified by the ECJ as a violation of Articles 49, 54 of the Lisbon Treaty relating to freedom of decision with reasoning that this theory cannot be a justifiable cause on the part of Germany. Even in the Inspire Art⁸ decision, the ECJ reaffirmed this argument and decision.

Conditions for the exercise of freedom of decision

Freedom of establishment applies to many areas of the economy. Article 51 of the Lisbon Treaty restricts the scope of exercise of freedom of decision, in those conditions where they are applicable to those kinds of activities, which are related to the use of public power. Just like other market freedoms, the agreement between states according to today's jurisprudence it is a necessary condition for the exercise of freedom of decision, because national issues are not affected by it. An interstate issue, which complements the interstate clause, is existing, if a local citizen seeks the exercise of freedom of establishment, in the event that he has obtained a professional qualification in another Member State, which he will exercise in his own country. Article 52 1 1 of the Lisbon Treaty provides for the same justifiable reasons as for the freedom of workers: order, safety and public health. With the help of these three justifiable causes in addition to restrictive measures, discriminatory measures can be taken into account. All measures should not contradict the principle of proportionality. These justifiable conditions are the same in terms of content as those within the freedom of employees.

In the Gebhard case, the ECJ clearly defined the conditions under which non-discriminatory measures acting restrictively on freedom of decision may be permissible:

1. They must be used in a non-discriminatory manner;
2. They must contain justifiable causes of general interest;
3. They must be defined to guarantee the intended purpose;
4. They must not cross the border, which is necessary to achieve the goal.

These four criteria are used by the ECJ if a restriction of four fundamental freedoms

is to be justified. The justifiable causes of general interest which may justify such a restriction may be different. In the Gouda⁹ case the ECJ summarized its jurisprudence in a list of causes of general interest. This list summarizes among others: protection of the recipient of services, intellectual property protection, employee protection, consumer protection, protection of national historical, artistic and cultural heritage, assessment of archaeological wealth, historical and artistic and better dissemination of knowledge on the cultural and artistic heritage of the country.

In the Bosal case, the ECJ determined that it did not classify them as causes of public interest and thus does not justify in cases of restriction of freedom of establishment, the cases of a lower taxation.¹⁰

This case (of lower taxation) can be justified by the ECJ under special conditions for maintaining the national tax system. Based on Article 50 point 2 of the Lisbon Treaty, many commercial law directives have entered into force, which set the rules for the publication of the balance sheet, the maintenance of the balance sheet, the forms of companies as well as merger & acquisitions of companies. These directives will be briefly mentioned in this chapter and will be discussed in more detail in the context of European commercial law.

Conclusions

In the framework of a deeper conclusion and analysis of the fundamental freedoms of the European common market we can say that the above paper created parallels between four or five fundamental freedoms of European internal market law. These parallels are found on the one hand in the Lisbon Treaty and on the other in the jurisprudence of the ECJ, which has profoundly created the right of the EU internal market. This is not so much about the true content of fundamental freedoms (so goods-, services-, persons- and capital turnover), but for the composition and systematics of any fundamental freedoms.

First, the ECJ has determined that all fundamental freedoms are directly applicable, in a form that citizens can turn to and claim their rights based on. The ECJ has gradually extended the prohibition of discrimination to a general prohibition. State measures, which are discriminatory, can only be justified through the justifiable causes set out in the Lisbon Treaty. According to the ongoing jurisprudence of the ECJ, non-discriminatory measures can be justified also through compelling causes of general interest and at the same time state measures which restrict a fundamental freedom, must be proportionate.

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Tax administration in Albania - Challenges towards its modernization

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Abstract

Tax administration includes a series of elements and indicators, which are of particular importance for all the work of the tax administration, but what is most important is the reflection of these elements to business and citizens. One of the most important elements that will be the focus of this paper is the tax debt and instruments towards its reduction. Who is considered a tax debt?

Tax debt is considered firstly the tax liability self-declared by the taxpayer and unpaid within the legal deadline and secondly, the tax liability assessed by the Tax Administration at the end of the tax audit, verification or any other legal procedure unpaid within the legal deadline. Tax legislation provides for a series of steps for the forcible collection of tax liability such as bank account blocking orders, where each bank where the taxpayer has his accounts is required to withhold the amount of outstanding liability, security lien and / or mortgage lien on assets 10 days after the issuance of the bank blocking order in case the collection of the obligation has not been achieved.

But is this solution enough to manage tax debt?

In an economy where individuals and businesses exercise continuous economic activity, but do not pay tax obligations, so as a result the Tax Administration loses tax revenues and the state budget is affected by increasing its deficit, only one alternative is not enough to solve. In order to achieve the highest possible performance in the economic environment, the tax debt must be administered both in terms of structures and assets in the most efficient way possible.

Based on this, the purpose of this paper will be the analysis of solutions and other alternative instruments for reducing tax debt.

Keywords: tax debt, tax administration, taxpayer, tax liability, economic environment.

Introduction

The drafting and implementation of tax policies in particular or fiscal ones in general is essential to provide the necessary financial resources in order to enable the exercise of state functions, provision of public goods and services. Due to this constant concern remains the tax debt, which occupies a good part of the annual budget expenditures which is created and increased due to inefficient management by the GDT of the process of collecting tax liabilities, as the Tax Administration in implementation of the requirements of law no. 9920, dated 19.05.2008 "On tax procedures in the Republic of Albania", as amended, Chapter XI, articles 88-104, has the legal obligation to collect unpaid tax liabilities within the legal deadlines, according to the sources of creation.

What is considered a tax debt?¹

¹ General Directorate of Taxes.

First, it is self-declared tax liability by the taxpayer and unpaid within the legal deadline

Second, it is tax liability assessed by the tax administration at the end of a tax audit, verification or any other legal procedure, unpaid within the legal deadline.

What are the reasons that lead to non-payment of tax liabilities?

- Low culture of taxpayers in paying tax obligations
- High level of bureaucracy
- Transparency towards taxpayers
- Instability of the legal basis
- The efficiency of the Tax Administration in which it affects both the necessary infrastructure, is the improvement of working conditions of employees and the quality of tax control

The element I want to dwell on in this paper is precisely the administration of the tax debt by the Tax Administration.

Based on the above, the Tax Administration is challenged to administer this tax debt in order to reduce it.

It is a frequently heard complaint that tax administration laws are complex, confusing, and arbitrary. To some degree this is probably unavoidable. Administration of a tax system must cover an enormous and diverse number of rules. Unlike the substantive laws of taxation, there is no basic “principle” of administration. In contrast, an income tax law, a property tax law, or a value-added tax (VAT) law each has unifying themes. While each may include some complex definitions, simplifications, or exceptions to these themes, there are at least a limited number of principles, typically related, around which the law can be structured and to which both policy analysts and drafters can return when creating the law.²

In contrast, it is not easy to encapsulate a few guiding themes for a tax administration law. There are a number of very broad principles that should apply in each administrative rule, such as fairness and efficiency, but these do not really help much in guiding substantive design. In some ways, tax administration law is constituted by a hotchpotch of rules, some related, some not very closely related, some expressing clear policy, and some based rather largely on arbitrary considerations. This is due to the fact that tax administration law is first and foremost the elucidation of a bureaucracy. Public administration, in and of itself, is not easily determined by reference to a small number of principles. Instead, it is much more a question of designing acceptable answers for myriad practical bureaucratic problems.¹

Nevertheless, some order can be brought to the organization of tax administration law. Three organizing principles can be identified: organization according to function, temporal organization, and organization by legal category. In combination, the three can make for a coherent legal structure that corresponds to the bureaucracy and procedure with which the tax administration law deals.³

In these circumstances, when the tax debt is increasing and the risk of collection remains within the structures, the involvement of the GDT under the direction of the MFE is immediately dictated in order to reorganize the functioning of debt collection, for the reason of addressing the risk it poses for the continuation of tax revenue and

² Law of Tax Administration and procedure - Richard K. Gordon.

³ 4 Law of Tax Administration and procedure - Richard K. Gordon.

budget revenue integrity .

An instrument that is considered efficient by experts in the field is also the function of a different model of tax debt management.

The function of the different model of tax debt management (ABT) of unpaid tax liabilities should operate as a completely new function, which is based on direct, direct contact with non-taxpayers, as soon as possible once the situation has been ascertained. The basic concept of ABT should be:⁴

- Ensure that taxpayers agree (accept) with current and future tax liabilities,
- To realize ABT of unpaid obligations in the shortest possible time,
- Work intensively with taxpayers' cases until they are resolved

The main goal is to increase the revenue collected in the shortest possible time. The ABT employee may give the taxpayer some time to secure the cash to pay the dues. But there is a single condition for any deferral, in terms of declaration and payment. The taxpayer must immediately comply with the requirements of the law for the payment of tax liabilities. He must start paying every obligation on time from that day onwards. Settlement of "old debts" is a negotiable agreement where both parties achieve the goal, the Tax Administration increases revenue in the shortest possible time, and the taxpayer is able to make the required payments and still stay in business. Each ABT Employee will have a certain number of priority cases assigned to him. If the taxpayer is unable to make the full payment, detailed financial statements must be provided by the taxpayer, which must be analyzed by the Employee. The taxpayer is assisted in determining which assets can be sold or used as collateral to obtain a loan to pay taxes, which expenses can be reduced or deferred, and so on. The financial analysis skills of the ABT Inspector are used to propose methods which have not been considered by the taxpayer. But these are just tips and it is the taxpayer's responsibility to act. The taxpayer is assisted in determining which assets can be sold or used as collateral to obtain a loan to pay taxes, which expenses can be reduced or deferred, and so on. The financial analysis skills of the ABT Inspector are used to propose methods which have not been considered by the taxpayer. But these are just tips and it is the taxpayer's responsibility to act. The taxpayer is assisted in determining which assets can be sold or used as collateral to obtain a loan to pay taxes, which expenses can be reduced or deferred, and so on. The financial analysis skills of the ABT Inspector are used to propose methods which have not been considered by the taxpayer. But these are just tips and it is the taxpayer's responsibility to act.

Conclusions

Based on the above analysis I have reached several conclusions:

First, it is necessary to improve the necessary infrastructure of the Tax Administration for a more effective management of those taxpayers who have problems with the payment of obligations.

Secondly, implementation of a new method such as immediate and direct contact with non-taxpayers.

Third, intensive work until the solution of concrete problems.

Fourthly, increase transparency towards taxpayers.

Fifth, reducing the level of bureaucracy and increasing the stability of the legal basis are the key elements for the most efficient management of tax debt.

⁴ Tax Debt in Albania and its Different Administration - Eduart Gjokutaj.

The Bilingual Dictionary and Foreign Language Learning

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Abstract

The dictionary has long been a highly regarded resource in language education. A recent study (Levy & Steel 2015) suggests that (digital) dictionaries are still the single most valued tool for additional language learners. Dictionaries suppose learner's autonomy, substituting for the human teacher in addressing local lexical problems. They assist language learners in reading, writing, and (didactic) translation. The role of dictionaries in language teaching has been duly recognized by teachers, professors, students and learners of English worldwide. This is also evidenced by the recent publication of a Research Timeline featured in (Nesi 2014) presenting an overview of groundbreaking empirical studies on dictionary use by learners of English. The role of dictionaries in teaching additional languages has been the subject of long debate. Thus, it has inspired the present report on more recent research on dictionaries in English language learning (as Nesi's overview ends with studies published in 2012). Academics have done extensive research on dictionaries, specifically on how dictionaries are used, and should best be employed in the context of language teaching and learning. Therefore, it is only natural that the language-teaching potential of dictionaries is the main focus of the studies undertaken in this field. Below I summarize some of the recent and current research in specific areas of language learner lexicography

Keywords: Dictionary, learner, foreign language, autonomy, translation.

Introduction

Conveying the meaning effectively

The role of dictionaries in teaching additional languages has been the subject of long debate. Interestingly, the lexicographic offerings for language learners - at least for English - can be characterized as the monolingual orthodoxy, set in the 'naturalistic' approach, which sees no place for LI in learning another language (Adamska-Safaciak 2010). It is a fact that the authoritative dictionaries for learners of English are monolingual, and until very recently a learner's dictionary used to mean a monolingual work by default.

However, the growing recognition of the role of LI in language education, voiced both within the ELT (e.g. Hall & Cook 2012) and lexicographic (e.g. Augustyn 2013) quarters, has eroded the dominance of monolingual dictionaries in ELT somewhat. Bilingual dictionaries for learners of English are now available for speakers of many of the major languages (Lew & Adamska-Safaciak 2015). When used for comprehension, monolingual dictionaries explain meaning through definitions, presenting parsing challenges and leading to further comprehension problems. But most severe is the difficulty of extracting a unitary meaning from a distributed assemblage of lexical cues (see e.g. Nesi & Meara 1994). Early results (summer 2015) from our ongoing research suggest that English definitions are problematic as vehicles for meaning explanation, not just for learners (including advanced learners of various language

backgrounds), but also for native speakers of English (we should note that we have tested definitions from highly acclaimed learners' dictionaries, which are typically more reader-friendly than those in dictionaries aimed at native speakers of English). In addition, our research indicates that English native-speaker defining practices are not necessarily suitable for learners of English (see Dziemianko & Lew 2013 and previous studies cited therein).

Compared to reading, a more challenging context of dictionary use is composition writing (Hurman & Tall 1998; Bishop 2000; East 2008; Chon 2009). For productive use, a dictionary needs far richer entries, which should include carefully disambiguated target language items, exhaustive information on syntactic patterns, collocational information, and example sentences which can serve as models for L2 writing. The best monolingual learners' dictionaries accommodate most of these needs, but their fundamental problem is that this rich information is indexed under the target L2 word, which often is not known prior to the learner.

Motivated learners then resort to a two-stage look-up process, first identifying candidate L2 words in a conventional bilingual dictionary, and then following up the candidates in the monolingual resource (M Oilier-Spitzer 2014). This, however, is very time consuming. A tool that would combine these two steps into a single lookup would be a bilingual dictionary which includes all the rich information needed for production, but indexed under the LI terms: an active bilingual learner's dictionary (Lew & Adamska-Safaciak 2015).

Preliminary results indicate that the dictionary significantly improves scores on all four aspects of language production evaluated in the examination rubric, including - somewhat surprisingly - the non-lexical component of structure, particularly when the digital version of the dictionary is used.

Finding information in dictionaries

Dictionaries for language learners typically treat headwords in considerable depth, including a fair share of example sentences. This can produce rather long entries that are difficult to navigate, making it harder for learners to locate specific information they are looking for.

To remedy this problem, some dictionaries have experimented with entry navigation devices. Two common types of which are signposts - brief verbal cues prefacing each sense of an entry - and menus, which gather similar cues in a single block above the entry. An earlier study (Lew 2010), showed that signposts are more effective than menus. More recently, as part of a PhD project, Ptasznik & Lew (2014) tested a combination of signposts and menus, but it turns out that such redundancy of navigation devices does not improve search speed or success.

Another aspect of signposting is currently being investigated by Anna Dziemianko, who is testing the effectiveness of various typographical ways of presenting signposts, modelled after the leading monolingual English learners' dictionaries. Preliminary results indicate that white capital letters against a blue background work best in terms of both access speed and meaning retention. This layout is modelled on the 5th edition of the Longman Dictionary of Contemporary English (Mayor 2009).

Collocational information can be very helpful in productive activities, and the best dictionaries for learners do include such information, but what is the best way of

presenting collocations?

A recent study by Dziemianko (2014) suggests that collocations presented in bold type - either directly in sentences exemplifying the collocational patterns, or immediately preceding their respective example sentences - are easier for learners to find than those placed in the (recently fashionable) dedicated collocation boxes. In terms of retention for later use, collocations presented in bold before example sentences are remembered better than those given in bold within examples, with boxes again performing the worst.

Idioms, phrases, and expressions are a particularly troublesome type of lexical item for lexicographers and dictionary users alike, since it is not clear under which component word such multi-word units should be listed in a dictionary. The leading English learners' dictionaries tend to place multi-word units under the first content word. But is this where learners expect to find them?

In an earlier study (Lew 2012), it was found that word frequency is far more important than position. Simply put, learners tend to look up the word in the expression that looks least familiar, and that, more often than not, is the rarest word (lexical frequency being, as it were, the intersubjective proxy for familiarity). In an ongoing study, it was improved on the methodology of the earlier one, now presenting idioms embedded in context as they are normally seen, and testing them with both advanced and intermediate learners of English.

Preliminary results confirm the decisive role that lexical frequency plays in learners' choices, at both proficiency levels investigated. Therefore, dictionaries should list multi-word units under the least frequent word, and not the first content word. Before they do, English language teachers should be telling learners to look under the first content word. This brings us to the issue of dictionary skills and their teachability.

Dictionary skills and how to teach them

Modern dictionaries are sophisticated tools, but not all language learners take full advantage of the content they offer. Dictionaries should be user-friendly, but there is a limit to the simplification without compromising the content, so another approach is to make learners into better dictionary users. Several studies completed in connection with M.A. projects at the Department show consistently that training in dictionary skills can be highly effective. They further indicate that activities that start with actual types of lexical problems are more successful than tasks based on dictionary structure and content (as found in typical dictionary workbooks), and an inductive approach tends to result in higher success, except in teaching labels and syntactic patterns, which should be given up front. Research is also being done on skills needed for digital dictionaries specifically (e.g. Lew 2013, and see below).

Moving forward: online dictionaries and mobile dictionaries.

Traditional dictionaries for language learners are printed books, but they are being rapidly replaced by digital dictionaries. With the new medium come new opportunities and challenges for lexicographers, such as the new search and navigation options afforded by digital dictionaries. These aspects are also studied intensively at our Department.

In a recently published paper, Dziemianko (2015) shows that judicious use of color can help online dictionary users locate and retrieve syntactic information better. The digital revolution in lexicography (Lew & de Schryver 2014) has also ushered in new research techniques. New ways of looking into the process of dictionary use have been made possible through recording eye movement patterns of dictionary users and digital logging of online dictionary use. In Lewetal. (2013), tracing the gaze of learners engaged in consulting dictionary entries led to original findings of direct relevance to the design of bilingual entries. In turn, log files of online dictionaries can supply cumulative data on which entries attract the attention of dictionary users, on what useful words are missing from the dictionary, and on headwords that are virtually never looked up.

The new digital-native generation of language learners are increasingly unwilling to pay for their dictionaries, expecting instead to get their dictionaries online for free. This drives them away from established authoritative dictionaries and to online dictionaries of uncertain provenance and often questionable quality (Nesi 2012). Trying to stop language learners from using such free online resources is probably a losing battle, but if learners have to use them, we could at least provide offer guidance on which online dictionaries are better than others. As part of another M.A. project, we are elaborating an evaluation framework for online dictionaries and using it to assess objectively the quality of the most popular freely available online dictionaries between English and Polish (which ones are popular was first established via an online survey of language learners), so that we can pass on this relatively objective information to the interested parties.

Conclusions

One limitation of the empirical studies on dictionaries in language learning conducted at our Department is that they tend to be limited in scope to Polish learners of English. This raises the question of how generalizable particular findings are to learners of other language configurations. Many probably are, but it would be best to try to replicate some of the studies with language learners of different backgrounds. Therefore, my aim in offering the present contribution is not just to inform the readers of our work and findings, but also to extend an invitation to replicate our studies in different contexts. With such an extended empirical basis informing the design decisions, future dictionaries stand a good chance of becoming even more useful tools for learners than they are today.

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