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**June 21-22, 2025
Istanbul**

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4th International Scientific Research Congress

June 21-22, 2025

Istanbul

(Online)

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Dr. Lec. Anila Hima Dr. Lec. Bukuroshe Isufaj	<i>University of Vlore "Ismail Qemali", Albania</i>	Perceptions and Realities of Gendered Political Discourse in Albania
PhD. Student, Kristýna Zákostelnová, PhD. Student, Jan Bolehovský	<i>University of Hradec Králové, Czech republic</i>	Poetry and Death: A Requiem for Lost Meaning in the Shadow of Totalitarianism
PhD. Student, Dimitrios Kothroulas, PhD. Student, Maria Christodimitropoulou	<i>University of the Peloponnese, Greece</i>	The Contribution of Football Academies to Sports Tourism
Assoc. Prof. Dr. Izabela Oleskiewicz	<i>Politechnika Rzeszowska, Poland</i>	Refugees as a Specific Example of Minority Groups in a State
Yang Zihui	<i>Zhongnan University of Economics and Law, China</i>	Red Ink And Red Tape: Local Government Debt Limits and Paper-Based GDP Management
Assoc. Prof. Dr. Filimon-Benea Anamaria, Assoc. Prof. Dr. Vid Ioana	<i>West University of Timisoara, Romania</i>	Co-creating Reputation. Redefining Public Relations Strategies in the Digital Era

ZOOM LINK: <https://us06web.zoom.us/j/85481148424?pwd=F4wBc5CTpH2xw2TlkzxCl8z12hMxoK.1>

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Dr. Aliyu Ahmad, Ahmad Ibrahim Isah, PhD Student, Bilkisu Lawal	<i>S a'adu Zungur University, Nigeria</i> <i>Ahmadu Bello University, Nigeria</i> <i>Umaru Musa Yar'Adua University, Nigeria</i>	Assessment of Blockchain technology in Saadu Zungur University, Gadau Bauchi State
Dr. Boualem Slimi, Dr. Redha Sakri	<i>University Saad Dahlab, Blida, Algeria</i> <i>National High School for Hydraulic, Algeria</i>	European Call Option Valuation Using The Monte Carlo Simulation Method Without And With Antithetic Variables

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Phd Student, Mohamed Oussama KERRAS, Prof. Dr. Khadra Nachi, Prof. Dr. Alain Bertrand Zemkoho	<i>University Oran 1 Ahmed Ben Bella, Algeria</i> <i>University of Southampton, United Kingdom</i>	Towards a Framework for Bilevel Optimal Control Problems
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<https://us06web.zoom.us/j/81364032643?pwd=jFLMNEQ2kJYsBunvhM28mKrVPAQQ7.1>

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Prof. Dr. Driss Haddouche, Dr. Abdelmalik Tounkob, PhD Student, Mohammed El Amin Ennebati	<i>Tlemcen, Algeria</i>	Spatial Changes and Sustainable Development Strategies of a Steppic Ecosystem in the South of Tlemcen, Algeria
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Asst. Prof. Sneha Satyanarayana Reddy, Dr. Janmejoy Gupta	<i>GITAM (Deemed to be University), Hyderabad; School of planning and architecture, Vijayawada, India</i>	A Comprehensive Literature Review of Kinetic Facades in Commercial High Rise Buildings
Khansa Furqan, Asst. Prof. Dr. Muhammad Aqeel	<i>Foundation University Islamabad, Pakistan</i>	Effect of Multisensory False Memories on Episodic and Semantic Memory and Amnesia in Patients with Hippocampal Lesions

ZOOM LINK: <https://us06web.zoom.us/j/84216276516?pwd=ZLyQj5q1pCOizvsr39ZVFC2PzWtkW.1>

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AUTHORS	AFFILIATION	TITLE
Ph.D. Student, Sulaiman Dzaïy, Ph.D. Student, Al Jaseem Ameer Maki, Lect. Dr. Doru Bârsan Prof. Dr. Timur Chis	<i>Petroleum-Gas University, Romania</i>	A Skin Effect in Horizontal Wells
Ph.D. Student, Daniel Iancu, Ph.D. Student, Al-Gburi Hasan Ali Mosleh, Lect. Dr. Doru Bârsan Prof. Dr. Timur Chis	<i>Petroleum-Gas University, Romania</i>	Modeling the Effects of Accidents on Employees during Testing of Flare Preventers
Ph.D. Student, Dan Cirjan, Ph.D. Student, Ioana Purgheľ, Prof. Dr. Maria Stoicescu, Prof. Dr. Timur Chis	<i>Petroleum-Gas University, Romania</i>	An Energy Efficiency Model based on Heat Pumps of a Public Building with Conventional Heating
Ph.D. Student, Dan Cirjan, Ph.D. Student, Ioana Purgheľ, Prof. Dr. Maria Stoicescu, Prof. Dr. Timur Chis	<i>Petroleum-Gas University, Romania</i>	An Treatment and Recovery of Petroleum Products Extracted from Polluted Water
M.Sc. Student Ayşe Kızıldemir Kılıç, Prof. Dr. Hakan Temeltaş	<i>Istanbul Technical University, Türkiye</i>	Comparison of MPC Based Motion Control Algorithms on Mujoco Hybrid Platform
Hanaa Sari Mohammed, Karim Merabti, Sihem Azizi	<i>Université de Tlemcen, Algeria</i>	A Computational Perspective on Catalyst-Molecule Interactions

ZOOM LINK: <https://us06web.zoom.us/j/84927817483?pwd=hRkWHUi1KlpPRmaTnsP4TDrl2CCvRX.1>

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Lect. Gizem Mermerkaya Lect. Betül Erbay Serkan Özdemir	<i>Bartın University, Türkiye</i>	Impact of Chronic Disease Level on Dual-Task Performance in Elderly Individuals
M.D. Intern, Zehranur Kuzubaş	<i>Düzce University, Medicine Faculty, Türkiye</i>	An Analysis of the Relationship Between Iodine and Goiter and Nodules in the Thyroid Gland
Prof. Dr. Mohtasham Ghafari, Prof. Dr. Sakineh Rakhshanderu, Dr. Elahe Ezati, Dr. Sima Kamkar	<i>Shahid Behshti University, Iran Hamedan University, Iran</i>	Studying the Effect of Educational Intervention on Cervical Cancer Screening among school teachers in western Iran: Application of the Extensive Parallel Process Model

ZOOM LINK: <https://us06web.zoom.us/j/88374354457?pwd=Th7R3hKxaz7eOE5CC5bRWm7j5Z5iID.1>

(The session time is planned according to Istanbul time)

June 22, (Sunday)

13.45 – 14.45

SESSION - 3

Moderator: Prof. Dr. Wissal Benhassine

AUTHORS	AFFILIATION	TITLE
Phd Scholar Mohit Gulati, Assoc. Prof. Dr. Navita Gupta, Assoc. Prof. Dr. Gowrishankar Potturi	<i>Chitkara University, India Uttar Pradesh University of Medical Sciences, India</i>	Association of Myofascial Trigger Points in Posterior Scapular Muscles Among Athletes from Various Sports Disciplines: A Cross-Sectional Study
PhD Student, Younas Aziz PhD Student, Aasim Danish PhD Student, Inayat ur Rehman	<i>Central South University, Changsha, Hunan, China</i>	Multiscale-Aware Vision Transformer for Accurate Echocardiographic Diagnosis of Aortic Stenosis
PhD Student, Younas Aziz PhD Student, Aasim Danish PhD Student, Inayat ur Rehman	<i>Central South University, Changsha, Hunan, China</i>	A Vision Transformer with Angular Attention for Robust Automated Echocardiographic Analysis
Dr. Nassira Chenouf Prof. Dr. Wissal Benhassine	<i>Faculty of Medicine, Batna. Algeria</i>	Mental Health of Firefighters: Occupational Medical Case Series Study

ZOOM LINK: <https://us06web.zoom.us/j/86519133065?pwd=uNVYHw3nNj5av8enMXIm7sfgFDVSsq.1>

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AUTHORS	AFFILIATION	TITLE
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Master Student, Ferhat Şenoğlu	<i>Süleyman Demirel University, Türkiye</i>	The Emotional And Polarizing Effect of The Language of Political Discourse on Social Media Platforms: An Analysis on The 2023 Elections
Master Student, Muhammet Emin Ayyıldız	<i>Ankara Yıldırım Beyazıt University, Türkiye</i>	Analyzing the Effects of European Union Accession Process on Good Governance in Türkiye (2002-2013)
PhD Student, Migraç Enes Furkan Milli	<i>İstanbul University, Türkiye</i>	The Relationship Between Foreign Direct Investment, Trade Openness, Economic Growth, and CO₂ Emissions in Türkiye: An Empirical Analysis for the Period 1979-2022
Dr. Tengiz Tsimnaridze	<i>Batumi Shota Rustaveli State University, Georgia</i>	Hannah Arendt and Martin Heidegger: On <i>Home Faber</i>, Technology and Work of Art
Assoc. Prof. Zeyneb Guliyeva	<i>Nakhchivan Branch of the Azerbaijan National Academy of Sciences</i>	Neolithic Monuments of Nakhchivan in The Light of New Research

ZOOM LINK: <https://us06web.zoom.us/j/86904013359?pwd=WgCSRskO5VBurMbr0TtyFgztguj50S.1>

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AUTHORS	AFFILIATION	TITLE
Aida Jalilzada	<i>Nakhchivan State University</i>	Component Analysis of Abbreviations in Media Discourse
Asst. Prof. Dr. Dursun Can Şimşek	<i>Avrasya University, Türkiye</i>	"The Terror of the Beautiful": TikTok Aesthetics and the Performance Regime of the Youth Body
Uğur Duman	<i>Erciyes University, Türkiye</i>	Tayfun Pirseliçoğlu's Cinema in the Contrast of National and Modern Allegory
Master Student, Merve Gülcan Güz, Asst. Prof. Dr. Vildan Akbulut	<i>Erzincan Binali Yıldırım University, Türkiye</i>	Investigation of the Relationship Between University Students' E-sports Attitudes, Digital Leisure Flow Experiences and Subjective Vitality
Dr. Octavian Bejan	<i>Centre for Criminological Prevention and Assistance, Moldova</i>	A Theory of The Thermoconductivity of Matter and Materials
Dr. Octavian Bejan	<i>Centre for Criminological Prevention and Assistance, Moldova</i>	A Few Pages from the Past of Criminological Research and Education in The Republic of Moldova

ZOOM LINK: <https://us06web.zoom.us/j/89171449585?pwd=by2OlbZzNlYrg0cIbKx08UqXnjOgFb.1>

(The session time is planned according to Istanbul time)

Hannah Arendt and Martin Heidegger: On *Home Faber*, Technology and Work of Art

Dr. Tengiz Tsimnaridze
Batumi Shota Rustaveli State University, Georgia

Abstract

In *The Human Condition*, Arendt distinguishes between the activities of labor and work. In her opinion, the former is connected with the body, with biological processes and natural processes that are independent of our will. The latter is connected with technical skill, production and the unchanging world of objects created by man. Arendt notes that, unlike the animal laborans, which is bodily tied to the material of its labor and absorbs it, homo faber processes this material through production, creating the many objects that compose and sustain the human world. According to Arendt, these objects are not consumed but used. These objects give the human-made world its durability and permanence. Without them, mortal human beings could not establish themselves on earth. Therefore, homo faber creates the world and gives solidity even to the most delicate objects in the universe.

Although the power of production is capable of creating the human world, under homo faber, Arendt writes, this world still turns out to be “devoid of value,” just like the material for use, which is only a means to an end. Thus, homo faber, who knows only his own ends, uses not only the objects he produces but also the entire world and nature as means. It echoes with Heidegger’s claim that endless consumption, whose goal is maximum use, is a unique process in the history of the world, one in which the world itself no longer exists. Likewise, in his “Memorial Address”, Heidegger argues that “nature has now been transformed into a gigantic gas station, a source of energy for modern technology and production”. According to him, the understanding of technology and its confrontation can only take place in a sphere that, on the one hand, is close to the essence of technology, but on the other hand, is completely different from it. For Heidegger, “such a sphere is art.” He defines art as “the opposing force of technology”: “If technology is the destructive force that turns man into an object, even though he tries to dominate him, art is the “saving force.” In his 1950 essay “The Origin of the Work of Art,” Heidegger argues that work of art “opens up the being of beings.”

If, for Heidegger, a work of art is valuable because it reveals the truth of Being, then for Arendt, the value of art lies in its extraordinary durability: it is the most enduring of all worldly things. Arendt argues that work of art differs from other objects not only in their longevity but also in their quality; their permanence is such that they can coexist with a changing world for centuries. She emphasizes that the immediate source of artistic creation is the human faculty of thinking, which manifests itself most fully in true philosophy and is distinct from the cognitive processes that

underpin scientific inquiry. In *What is Called Thinking?* (1952), Heidegger writes that “science does not think.” According to him, science does not think in the way a thinker thinks. In his late writings Heidegger “distinguishes thought as *Gelassenheit* ... from technical interest.” According to him, *Gelassenheit* “... means to exist in the (technological) world and not to belong to it, to be in it with the body and not with the soul...” *Gelassenheit*, for Heidegger, is that which can cope with the destructive power of technology.

Thus, my conference paper is connected to Arendt’s analysis of *homo faber* and the activity of work, as presented in her 1958 book *The Human Condition*. It also engages with late Heidegger’s critique of modern technology. Moreover, I will focus on Arendt’s and Heidegger’s conceptions of the artwork and its relation to thinking, which, for both, is the foundation of work of art.

Keywords: Arendt, Heidegger, work of art, technology, thinking

The Relationship Between Foreign Direct Investment, Trade Openness, Economic Growth, and CO₂ Emissions in Türkiye: An Empirical Analysis for the Period 1979-2022

Türkiye'de Doğrudan Yabancı Yatırımlar, Ticari Açıklık, Ekonomik Büyüme ve CO₂ Emisyonu Arasındaki İlişki: 1979-2022 Dönemi Ampirik Bir Analiz

Migraç Enes Furkan Milli

PhD Student, İstanbul University, Türkiye

ORCID: 0000-0003-2516-7723

Abstract

This study investigates the effects of foreign direct investment, trade openness and economic growth on Carbon Dioxide (CO₂) emissions in Türkiye. In this context, using annual time series data for the period 1979-2022 from the World Bank database, the analysis was carried out with the Autoregressive Distributed Lag (ARDL) bounds test approach. In the study, CO₂ emission was used as the dependent variable and foreign direct investment, trade openness and economic growth were used as independent variables. The stationarity levels of the variables were tested by Augmented Dickey-Fuller and Phillips-Perron unit root tests. The main results of the study are as follows: (1) There is a long-run relationship between CO₂ emissions and foreign direct investments, trade openness and economic growth. (2) 1% increases in economic growth, foreign direct investments and trade openness increase CO₂ emissions by 0.34%, 0.06% and 0.18%, respectively. (3) When the short-run model is analysed, the coefficient of the error correction term (-0.601283) is statistically significant. This indicates that the effect of the shock in the short run will be dampened in approximately 1.66 years and will reach equilibrium in the long run. (4) Finally, when the diagnostic test results of the model and the graphs of CUSUM and CUSUMSQ tests are analysed, it is concluded that the model is stable.

Keywords: CO₂ Emissions, Foreign Direct Investment, Trade Openness, Economic Growth, ARDL

Özet

Bu çalışmada, Türkiye'de doğrudan yabancı yatırımlar, ticari açıklık ve ekonomik büyümenin Karbondioksit (CO₂) emisyonları üzerindeki etkileri araştırılmaktadır. Bu bağlamda, Dünya Bankası veri tabanından alınan 1979-2022 dönemine ait yıllık zaman serisi verileri kullanılarak, Gecikmesi Dağıtılmış Otoregresif (ARDL) sınır testi yaklaşımı ile analiz gerçekleştirilmiştir. Çalışmada bağımlı değişken olarak CO₂ emisyonu, bağımsız değişken olarak ise doğrudan yabancı yatırımlar, ticari açıklık ve ekonomik büyüme kullanılmıştır. Değişkenlerin durağanlık mertebeleri, Augmented Dickey-Fuller ve Phillips-Perron birim kök testleri ile sınanmıştır. Çalışmanın temel sonuçları şunlardır: (1) CO₂ emisyonları ile doğrudan yabancı

yatırımlar, ticari açıklık ve ekonomik büyüme arasında uzun dönemli bir ilişki vardır. (2) Ekonomik büyümedeki, doğrudan yabancı yatırımlardaki ve ticari açıklıktaki %1'lik artışlar CO₂ emisyonunu sırasıyla, %0.34, %0.06 ve %0.18 oranında artırmaktadır. (3) Kısa dönem modeli incelendiğinde, hata düzeltme terimi katsayısı (-0.601283) istatistiksel olarak anlamlıdır. Bu durum, kısa dönemde meydana gelen şokun etkisinin, yaklaşık 1,66 yıl içinde sönümlenerek uzun dönemde dengeye geleceğini göstermektedir. (4) Son olarak, modelin tanısal test sonuçları, CUSUM ve CUSUMSQ testlerine ait grafikler incelendiğinde, modelin istikrarlı olduğu sonucuna varılmıştır.

Anahtar Kelimeler: CO₂ Emisyonu, Doğrudan Yabancı Yatırımlar, Ticari Açıklık, Ekonomik Büyüme, ARDL

Red Ink And Red Tape: Local Government Debt Limits and Paper-Based GDP Management

Yang Zihui

Zhongnan University of Economics and Law, China

Abstract

Regional GDP data not only reflects regional economic conditions, but also serves as the basis for national development policies. The main source of its inaccuracy is the local government partly based on paper management and management based on real activities. This study investigates the influencing factors of GDP management errors by observing local government debt close to the limit and paper GDP management errors. Using the panel data of 31 provinces in China from 2015 to 2022, this study finds that when the local government debt is close to the limit, the GDP management error caused by the paper-based GDP management will increase, and this phenomenon is more pronounced in the regions with high government promotion incentives and low marketization degree. The channel test finds that there is a trade-off between real activity-based management and paper management. The robustness tests include replacing the core explanatory variables, explained variables and DID of policy shocks. This paper provides a new macro perspective for the study of local government debt, and improves the existing research on GDP management errors from the perspective of paper-based GDP management and real activity-based GDP management. From the perspective of practical impact, this paper provides a factual basis for local government incentives, regulatory policies and the promotion of local government debt reform.

Keywords: GDP management local government debt local government debt ceilings paper-based management

Refugees as a Specific Example of Minority Groups in a State

Assoc. Prof. Dr. Izabela Oleskiewicz

Politechnika Rzeszowska, Poland

Abstract

In recent years, migration in Europe has dominated social and political discourse, driven by mass movements of people fleeing conflict, political persecution and natural disasters, as well as the rise of populist rhetoric fuelled by latent economic tensions. Displacement is undoubtedly one of the biggest challenges facing the world today. At the end of 2020, more than 82 million people worldwide are classified as forcibly displaced, whether they have remained in their countries of origin or crossed an international border. If this group were a country, it would rank 20th in the world in terms of population, just after Germany. To date, many tools and solutions have also been developed to improve the daily practice of migration management, which can have a tangible impact on migrants' lives and social cohesion. The aim of this article will be to show the existing legal gaps when it comes to meeting the needs of refugees, thus demonstrating the thesis that there are numerous practical discrepancies between UN principles and actual practices.

Keywords: Refugees, UN, movement, challenges, Europe

Neolithic Monuments of Nakhchivan in The Light of New Research

Assoc. Prof. Zeyneb Guliyeva

Nakhchivan Branch of the Azerbaijan National Academy of Sciences

Abstract

The advantageous geopolitical position of the Nakhchivan region of Azerbaijan determines the relevance of the monuments here in the study of ancient intercultural relations formed in the triangle of the South Caucasus - Eastern Anatolia - the Middle East.

The main goal of the presented article is to consider the origin of agricultural cultures formed in the South Caucasus, using the example of the monuments of Nakhchivan, and at the same time to introduce new finds related to the Neolithic period into scientific circulation.

The study is based on archaeological materials from 5 monuments (I Kultepe, Nakhchivantepe-4, Osmantepe, Sadarak, I Khalaj) on the territory of the Nakhchivan Autonomous Republic. Among these monuments, new finds from the settlement of I Khalaj are presented to the scientific community for the first time. The monument is located in the village of Khalaj in the Sharur district, on the left bank of the Araz River, in the geography that connects the South Caucasus with the Urmia basin. Here, researchers have recorded Neolithic ceramics. They were represented mainly by painted patterns and were associated with Middle Eastern cultures.

During the archaeological research we conducted here in 2024, new finds from the Neolithic period were obtained¹. In order to determine the existence of the layer to which they belong, archaeological excavations were carried out at the monument in June-July of the same year. As a result of the excavations, which continued to a depth of 4.2 meters, 5 cultural layers were recorded. Neolithic ceramics are mainly represented by above-ground finds. They are divided into 3 types: simple, red-engobed and both-surface polished ceramics. Two of them reflect more local pottery traditions. Red-engobed ceramics and a small amount of painted ceramics create an analogy with Middle Eastern cultures.

Conclusion. The study of new finds from Khaladj I shows that local pottery traditions developed here during the Late Ceramic Neolithic, and that cultural and economic links with Near Eastern cultures existed at the same time.

Keywords: Neolithic, Nakhchivan, cultural relations, I Khalaj settlement.

¹ Archaeological research at the monument was conducted in 2024 by the "Khalaj Archaeological Expedition" organized by the Nakhchivan Department of ANAS under the leadership of Associate Professor Zeynab Guliyeva.

Introduction

The location of the Nakhchivan region on the border of the Middle East and the South Caucasus allows it to play a bridge role between these regions. In this regard, the monuments here are important in studying the origins of ancient agricultural cultures in the South Caucasus and their connections with other regions.

In Nakhchivan, the Neolithic period was represented by the Kultepe culture. This culture is associated with the name of the Kultepe I settlement, which was recorded in the Nakhchivanchay valley. The monument was first studied in the 20th century. As a result of these archaeological studies conducted by the prominent archaeologist O. Habibullayev, the unique features of the Kultepe culture were recorded for the first time (Абибуллаев, 1982, с. 24–36) and these materials were transferred to the National Museum of History of Azerbaijan (Абибуллаев, 1962, с. 15). In the 21st century, as a result of the studies conducted by the Azerbaijan-France international archaeological expedition led by Prof. V. Bakhshaliyev and K. Marro, in which we were also part, it was determined that this culture was formed in the third quarter of the 7th millennium BC (Baxşəliyev və b., 2017). As a result of our re-examination of the archaeological materials discovered in the first stage and stored in the National Museum of History of Azerbaijan and comparing them with new materials obtained in the second stage, 3 phases of the Neolithic culture of Nakhchivan, represented by the Early Ceramic Neolithic Phase (EPCN), Middle Ceramic Neolithic Phase (MPCN) and the Late Ceramic Neolithic Phase (LPCN) were identified (Guliyeva, 2024, p. 21). In Nakhchivan, materials belonging to this period were obtained from 5 monuments located in the Arpachay and Nakhchivanchay valleys: Kultepe I, Nakhchivantepe 4, Osmantepe, Sadarak and Khalaj settlements (Figure 1).

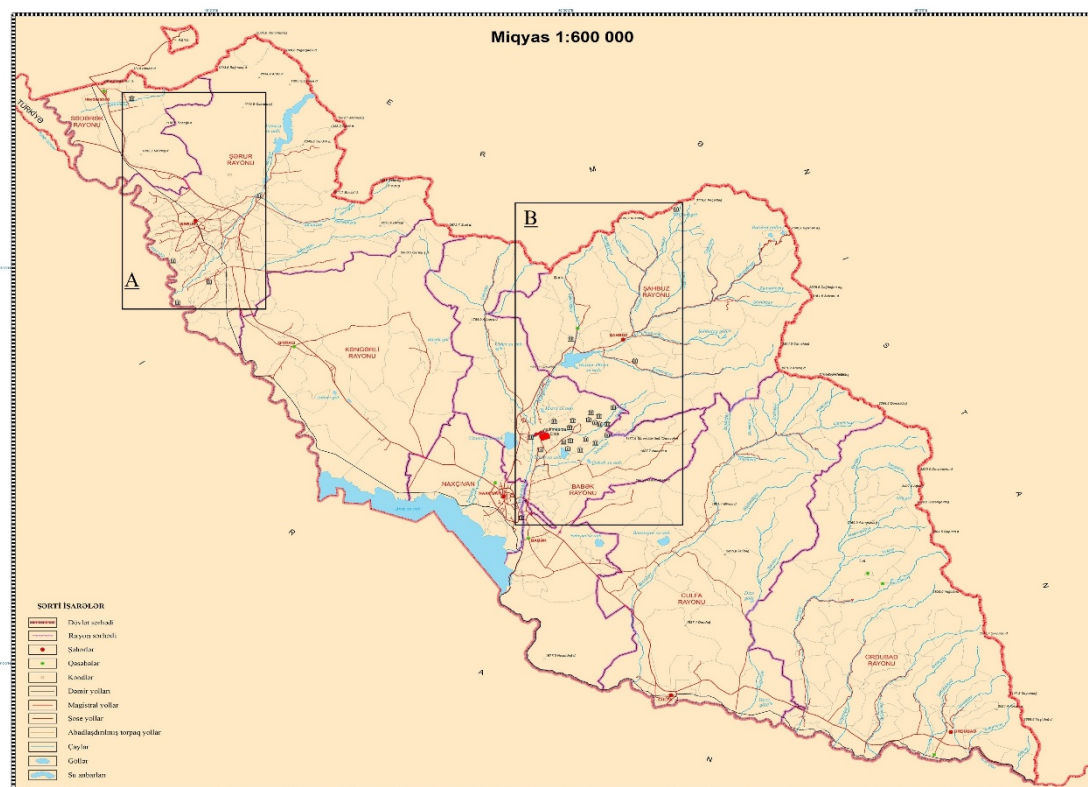


Figure 1. Archaeological map of the Neolithic monuments of Nakhchivan: A-Arpachay Valley; B-Nakhchivanchay Valley.

The settlement of Khalaj I has been attributed to the Late Ceramic Neolithic (Quliyeva, 2024, s. 123). In the last century, researchers obtained ceramics of the Neolithic period from here (Bakhshaliyev et al. Khalaj). They were represented by surface materials. Ceramic samples with painted patterns were associated with Near Eastern cultures (Baxşəliyevç 2021 s. 158).

We decided to conduct new research there to determine the presence of a Neolithic layer at that monument. In April 2024, we conducted reconnaissance research at this monument (Figure 2).



Figure 2. 2024 reconnaissance surveys at the Khalaj settlement.

New archaeological research at the Khalaj I settlement. As a result of the research, a large number of ceramic samples were obtained. We obtained a significant amount of surface materials (Quliyeva, 2024, s. 91). Some of these materials were represented by Neolithic ceramics. Taking this into account, new archaeological excavations were initiated at the monument.

Archaeological excavations conducted in 2024 at the Khalaj settlement. In June–July 2024, the “Khalaj archaeological expedition” established in the Nakhchivan Department of ANAS began archaeological excavations at this monument. 5 layers were discovered in area A, which continued to a depth of more than 4 meters.

Layer I from the top was a loose-mixed layer. It consisted of a sandy soil layer up to a depth of 60 cm from the surface. No remains of human skeletons were discovered in this layer, which was approximately 1 meter thick. This layer was probably scattered with graves.

The second layer was distinguished by its richness. A stone box grave and Iron Age vessels were discovered here (Figure 3).



Figure 3. Archaeological excavations at the Khalaj settlement (2024).

The third layer was represented by painted ceramics of the Middle Bronze Age.

Ceramic fragments of the Early Bronze Age were discovered from the fourth layer.

A small number of straw-faced ceramic samples were unearthed from the fifth layer. They were represented by plain and painted samples. Since the excavation season had ended, it was not possible to reach the mainland. However, the small number of ceramic samples discovered from the fifth layer reflect some features of the Kultepe culture of the Neolithic period. Their inclusion in the study, together with surface finds, allows us to determine the characteristics of the Neolithic ceramics of Khalaj I.

Characteristics of Neolithic ceramics of I Khalaj. The Neolithic ceramics of the Khalaj I settlement can be divided into five groups, with 3 main ones, based on surface treatment. Group I ceramics are straw-faced, made of red clay. They are numerous (Figure 4).



Figure 4. Group I of Neolithic ceramics: simple ceramics with straw faces (I Khalaj-2024).

According to the production technology, they are analogous to Group I of Neolithic ceramics of I Kultepe (Quliyeva, 2024, Figure 64, I). They differ only in the variety of red color on them. This difference indicates that potters used different clay deposits.

The surface of Group II ceramics is combed with straw bundles or has traces of smoothing. Samples belonging to this group are represented by few samples (Figure 5).



Figure 5. Ceramics of group II with a surface smoothed with a bundle of straw (I Khalaj-2024).

Group III ceramics are engobed and polished. They are divided into 2 types: red engobed ones: and light brown ones (Figure 6).



Figure 6. Group III red engobed and well-polished ceramics (I Khalaj-2024)

Those belonging to the first type find their closest analogues in the third group of Neolithic ceramics of I Kultepe (Quliyeva, 2024, Figure 64, III). They belong to the Middle Phase of the Ceramic Neolithic.

Group IV ceramics are painted (Figure 7,a).



**Figure 7. Ceramic samples with painted patterns (group IV) and relief ornaments (group V)
(I Khalaj-2024).**

They consist of 2 samples. They have patterns similar to those of Near Eastern cultures. In the Late Khalaf culture, some of the vessels are surrounded by a wide line of this type (Akkermans, 1993, fig. 3.35, 61; 3.36, 65).

Group V ceramics are relief-ornamented (Fig. 7,b). They reflect the characteristics of the Kultepe culture. The characteristics of the Kultepe culture are also traced in the typology of ceramics belonging to groups 1–3 (Figure 8).

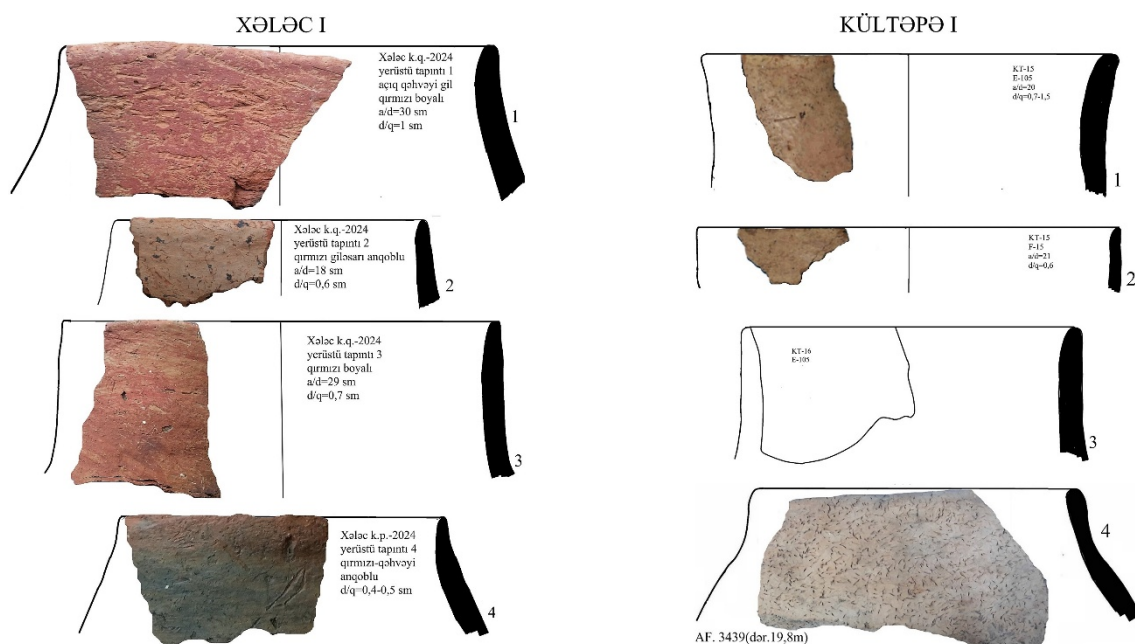


Figure 8. Typological similarity of Neolithic ceramics of the I Khalaj with the Kultepe culture (Quliyeva, 2024).

Conclusion

1. Archaeological research conducted in 2024 showed that the settlement of Khalaj I was one of the monuments of the Kultepe culture; a local culture was formed here in the Neolithic period. This can be seen in 4 ceramic groups.

2. The similarity of painted ceramic samples with Near Eastern cultures (Urmiya Basin and Khalaf culture) indicates that cultural and economic relations existed between the Near East and the South Caucasus in the Neolithic period. Nakhchivan played an important bridge role in these relations.

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Co-creating Reputation. Redefining Public Relations Strategies in the Digital Era

Assoc. Prof. Dr. Filimon-Benea Anamaria

West University of Timisoara, Romania

Assoc. Prof. Dr. Vid Ioana

West University of Timisoara, Romania

Abstract

The digital transformations of the last two decades have profoundly redefined public relations (PR) practices, shifting the focus from one-way control of communication to a collaborative and dynamic model. This research explores how social networks, artificial intelligence and active user participation (User-Generated Content) have transformed the relationships between organizations and their audiences. The study examines the transition from traditional models of communication - based on broadcasting and control - to a paradigm of constant dialog, where reputation is co-created in real time. New practices such as transmedia storytelling, the use of data to personalize messages, real-time monitoring of public sentiment and digital crisis management are highlighted. Research also discusses the risks associated with this shift, such as loss of narrative control, information manipulation or content overload. Special attention is paid to the role of digital influencers in PR strategies and the impact of communication automation on message authenticity. Through a mixed-methodology, the paper provides a current and critical perspective on PR adaptation in the age of hyperconnectivity, with a focus on the strategic and ethical challenges generated by this new communication ecosystem. The conclusions highlight the need for flexibility, transparency and digital literacy in rebuilding trust between organizations and the public.

Keywords: PR, image, digital era, communication, reputation

1. Introduction

The accelerated technological evolution of the past two decades has transformed the public relations field profoundly. Previously, PR relied primarily on

unidirectional channels (press releases, conferences, official messages) with strict information control emphasis. With social media emergence and pervasive digitalization, organizations lost their narrative monopoly: audiences can react instantly, generate and distribute their own content, and become active participants in brand reputation construction (Kumar et al., 2021).

Simultaneously, artificial intelligence (AI) introduced advanced data analysis and communication automation tools, enabling large-scale message personalization and real-time public sentiment monitoring (Brown et al., 2022). This evolution led to a transition from control-based, unidirectional broadcasting models toward a dialogical, continuous, and collaborative paradigm where reputation is co-created between organizations and stakeholders.

This research aims to analyze and synthesize specialized literature regarding these changes, present mixed-method research methodology, and provide an applied case study of eMAG, highlighting how a major Romanian organization adapts its PR practices to the hyperconnectivity era.

2. Methodology

To obtain a comprehensive perspective, the research adopts mixed methodology. Identification of scientific articles, reports, and specialized studies published in the last 5 years on digital PR, AI, UGC, transmedia storytelling, real-time monitoring, and crisis management themes. Sources include academic databases (ScienceDirect, MDPI, Sage Journals) and industry reports. Selection criteria focused on digitalization PR theme relevance, recency (majority from last 5 years), domain diversity, and methodological approaches

Quantitative and qualitative analysis

- For eMAG case study, public social media data collection (Facebook, Instagram, Twitter, LinkedIn, YouTube) regarding communication activity, posting frequency, content typology, interaction levels
- Content analysis of major eMAG PR campaigns, identifying storytelling elements, influencer usage, crisis approaches, and monitoring and personalization measures
- Interpretation of quantitative analysis results and insights from secondary sources
- Comparison of eMAG practices with literature recommendations to identify strengths, gaps, and potential improvement directions

Limitations

- Direct access to internal data and eMAG staff interviews was limited, compensated through detailed public data analysis and relevant media statements
- Social media data represents only part of PR activity; offline activities exist but aren't completely included
- Case study results are exploratory and cannot be automatically generalized without context-specific adjustments

3. Literature Review

3.1 Digital Transformation of public relation

Literature indicates that digitalization created multiple communication channels while increasing complexity in message and reputation management. According to systematic reviews, UGC and social media opened a new era of interactivity and active audience participation, eliminating barriers between sender and receiver (Kumar et al., 2021).

Simultaneously, AI offers predictive and descriptive analysis tools for monitoring online discussion volume and tone, early crisis detection, and audience segmentation automation. However, integrating these technologies raises questions about ethics, transparency, and authenticity.

Several systematic reviews trace the integration of social media into PR scholarship. Kaplan and Haenlein (2010) introduced foundational concepts of social media's challenges and opportunities for organizations, emphasizing the shift from controlled messaging to interactive engagement. Wang, Cheng, Yang, and Sun (2021) conducted a systematic review of social media-related PR research from 2006 to 2020, highlighting theoretical frameworks (e.g., dialogic communication theory), methodological trends, and the reframing of PR practice toward stakeholder dialogue and relationship management. Roth-Cohen and Avidar (2022) further synthesize a decade of social media research in PR, noting a proliferation of studies on social listening, engagement metrics, and the need for agile strategic planning in digital contexts. Collectively, these reviews document a clear trajectory: PR has moved from planning annual, top-down campaigns toward building flexible frameworks that accommodate rapid shifts in public sentiment and platform dynamics.

3.2 Social Media and audience engagement

Social networks have become primary channels for organizational communication. DataReportal (April 2025) reports approximately 5.24 billion active social media user identities globally, up about 4.1% year-over-year, underscoring the scale and growth of these platforms. Studies show that platform preferences and usage behaviors vary by region and demographic segment, requiring localization of content and platform strategies (DataReportal, 2025). The dialogic communication model posits that two-way interaction fosters stronger relationships and trust; platforms such as Facebook, Instagram, TikTok, and region-specific channels demand tailored messaging, multimedia content, and community management approaches to maintain authenticity and relevance. Social listening tools enable continuous monitoring of audience conversations, guiding content adjustment and crisis anticipation.

Additionally, social media facilitates UGC: reviews, opinions, testimonials, viral campaigns, but also risks like amplified negative feedback or inappropriate comments. Therefore, PR strategies must include clear plans for active listening ("social listening"), rapid response, and community management.

After the consolidation of public relations as a globally recognized field and its expansion into the digital environment with the emergence of the Internet, a new stage of evolution followed, namely its adaptation to new realities through social networks.

A characterization of these networks, known in English as "social media", can be as follows: Social media is best defined as a computer-mediated technology that facilitates the creation and exchange of information, ideas and content through virtual connections and networks. Since the year 2000, new applications and social networks have constantly emerged and competed with each other, each of them designed for a specific activity: some are designed for entertainment, others for public information, and others for community interaction.

The way messages were delivered before the existence of social platforms has undergone a radical change, because: social media marked the shift from the one-to-many communication that defined the early years of the world wide web to many-to-many communication. Social media has changed the fundamental ways in which we communicate, interact and share knowledge around the world and with each other.

Arranged in chronological order of the emergence of the social networking sites that have survived to the present day and are widely used, they are outlined as follows: LinkedIn, a network for business collaborations was launched in 2003. A year later, in 2004, Facebook emerged, which would become the most influential social network worldwide. In 2005, YouTube, which specializes in video distribution, came to the fore. 2006 saw the introduction of Twitter, now called X, popular for writing short messages. WhatsApp was developed in 2009, with a user-friendly interface for calls. The following year saw Instagram, designed for photo sharing, followed in 2011 by Snapchat. Most recently, in 2016 the TikTok platform, designed for short video content, became accessible to users.

These digital platforms thus constitute an important segment of today's communication channels, which offers a considerable advantage for the public relations field, as they facilitate the rapid and widespread dissemination of messages to the public. However, this expansion also brings with it increased responsibility, as communication strategies need to be designed in a way that is flexible enough to be applied on an international scale, but at the same time adapted to the cultural, linguistic and social specificities of each community.

By 2023, social networks will have cornered a huge number of the world's online active individuals, 62.3% of the global population, according to an AFP study, and so far, the most frequently accessed platforms look like this:

This issue portrays how public relations has evolved from a controlled and linear activity to an interactive process, carried out in digital spaces where visibility, immediacy and adaptability are essential. The shift from traditional media to social media-facilitated communication emphasizes a natural stage in the history of the field, where effectiveness is linked to the ability to respond to the digital context in which the public informs and expresses itself.

3.3 User-Generated Content (UGC) and Co-Creation of Reputation

UGC marks a paradigmatic shift: audiences not only receive but also produce content that influences other stakeholders' perceptions. Kaplan and Haenlein (2010) note UGC's authenticity advantage over organization-generated content. Sehl (2014) reviews how UGC provides insights into consumer needs, preferences, and emotions, informing strategic communication. However, UGC also carries risks: toxic or misleading content can escalate rapidly into crises if not anticipated. Wang, Cheng, Yang, and Sun (2021) emphasize the importance of social listening and moderation policies to manage UGC effectively, balancing openness with safeguards for brand

integrity and legal compliance. Clear guidelines on copyright, privacy, and disclosure must accompany UGC campaigns to maintain audience trust.

AI's adoption in PR has accelerated, with Zerfass, Hagelstein, and Tench (2020) providing cross-national empirical insights into AI's impact on communication management, revealing benefits such as efficient social listening, sentiment analysis, and data-driven personalization, alongside challenges around bias, transparency, and skill gaps. AI tools assist in processing large volumes of data, automating routine draft generation, and optimizing timing and target segments for messages. Yet, ethical concerns arise: practitioners must ensure transparency about AI usage, mitigate algorithmic bias, and secure personal data per GDPR and similar regulations. The "human-in-the-loop" paradigm is recommended, wherein AI supports but does not replace human judgment, preserving nuance and empathy in messaging (Zerfass, Hagelstein & Tench, 2020).

3.4 Transmedia Storytelling and personalization

Transmedia storytelling involves crafting a coherent narrative across multiple channels—websites, blogs, social media, video platforms, podcasts—each adapted to the medium's strengths and audience expectations (Kaplan & Haenlein, 2010). Personalization through data analytics allows organizations to segment audiences and deliver tailored messages based on behavior, demographics, and preferences, improving campaign effectiveness but necessitating strict data governance. DataReportal (2025) and related sources highlight the growing expectation for personalized experiences, while GDPR frameworks mandate transparency and user consent for data-driven personalization.

3.5 Role of Digital Influencers and Authenticity

Digital influencers function as independent endorsers whose personal content and credibility can amplify organizational messages. Freberg, Graham, McGaughey, and Freberg (2011) examine public perceptions of influencer personality traits and their impact on audience attitudes, underscoring the importance of value alignment and authenticity in collaborations. Partnerships with influencers can yield high engagement, especially among younger demographics, but require transparency regarding sponsorships to comply with advertising regulations and to preserve credibility. Ongoing monitoring of community feedback and performance metrics informs adjustments to influencer strategies.

3.6 Artificial Intelligence and PR

AI integration in PR occurs through:

- **Tools** capable of analyzing large volumes of online texts, identifying tonality (positive, negative, neutral) and emerging themes. This enables early crisis detection and campaign impact measurement.
- **Content automation:** Generation of press releases, newsletters, personalized messages, chatbots for initial interactions. Using AI for text creation raises questions about authenticity and risk of overly "robotic" or standardized messages (Thompson et al., 2023).
- **Recommendations and personalization:** AI can segment audiences based on behavior and preferences, generating content adapted to each segment, increasing relevance and engagement. However, risks include "filter bubbles" and loss of diverse perspectives.

- **Predictive analytics:** Forecasting trends and anticipating audience reactions to specific messages or initiatives.

3.7 Ethical Risks and challenges

The shift to interactive, data-driven, and AI-enabled PR practices raises several ethical challenges: loss of narrative control in decentralized communication ecosystems; potential for misinformation and manipulative tactics (deepfakes); content overload leading to audience fatigue; privacy and data protection concerns in personalization; and inequities in technology access among organizations. Scholars emphasize the need for robust internal ethical frameworks, including AI governance policies, UGC moderation guidelines, data privacy protocols, and transparent influencer agreements (Zerfass et al., 2020; Wang et al., 2021).

4. eMAG and PR Strategy adaptation in digital era

Context and positioning

The company eMAG is Romania's largest e-commerce platform and one of the region's most important. Rapid evolution and expansion to new markets necessitated continuous marketing and PR strategy adaptation. In recent years, digital communication emphasis increased significantly, reflecting the need for permanent dialogue with clients and partners, especially in crisis contexts.

Social Media presence and UGC

eMAG intensively uses social media for client interaction: regular posts about promotions, product news, usage tips, special events (Black Friday). High frequency and content diversity (video, infographics, short articles) aim to maintain visibility and sustain engagement.

UGC is encouraged through review and testimonial requests on websites and social media: clients can send photographs and impressions about purchased products, which are then redistributed. This contributes to message authenticity and community consolidation.

Transmedia Storytelling and Campaigns

eMAG conducted transmedia campaigns combining video elements, blog articles, interactive social media posts, and influencer collaborations. For example, the "Education never stops" campaign emphasized social involvement and relied on emotional storytelling to consolidate responsible brand image.

Collaborations with influencers and content creators targeted both product presentation and CSR initiatives, in formats adapted to each platform (short TikTok videos, Instagram stories, partner blog articles).

AI Usage and Data Analysis

eMAG has dedicated data analysis teams, using AI for audience segmentation, product recommendation personalization, and marketing and PR message adaptation. While internal details aren't public, industry representative interviews indicate social

listening tools and sentiment analysis usage for real-time brand perception monitoring.

Chatbots and virtual assistants handle initial client support on websites and social media, contributing to rapid responses and feedback collection. Human supervision intervenes for complex situations, ensuring response authenticity and adequacy.

Digital Crisis Management

In crisis situations (logistics problems, viral public complaints), eMAG demonstrated rapid reaction capability through official messages transmitted simultaneously on websites and social media, along with personalized responses to affected clients. Continuous discussion monitoring and close collaboration between PR and operational teams enable tactical message adjustment. Response practices include problem acknowledgment, official apologies, clarifications about implemented measures, and compensation offers where appropriate.

Results and Discussion

eMAG Practices synthesis relative to literature

Analysis indicates eMAG adopted most recommendations identified in digital PR literature: intensive social media usage, social listening, AI personalization, UGC, transmedia storytelling, and influencer collaborations. This reflects orientation toward a dialogical and collaborative model where audiences become active partners.

Sentiment monitoring and rapid crisis intervention correspond to studies suggesting immediate response importance for limiting negative impact.

Distinctive aspects and Best Practices

- **Strong Community through UGC:** eMAG stimulates visual reviews and testimonials, integrating user feedback into official communications, increasing trust among other potential clients
- **Social Impact Storytelling:** Education support campaigns show how PR can support CSR objectives and consolidate brand credibility beyond sales growth
- **Balance between Automation and Human Intervention:** Chatbots for routine responses with rapid direction to human teams for complex situations, ensuring personalized and empathetic responses

Persistent Challenges and Recommendations

Key recommendations include:

1. **Content oversaturation management:** Strategy should include "breathing" periods, alternating commercial campaigns with informative, educational, or inspirational content
2. **Confronting changing algorithms:** Channel diversification recommended (developing own community through newsletters, proprietary applications)
3. **AI and data transparency:** Clear communication about data and AI usage, with user control options

4. **Complex crisis preparation:** Regular scenario updates including emerging channels and disinformation techniques

5. Conclusions

Digital transformations redefined PR's role from message control instrument to collaborative reputation co-creation process. Social media, AI, and UGC are pillars of this change, offering deep audience engagement opportunities while presenting significant risks related to control loss, disinformation, oversaturation, and ethical data transparency issues.

The eMAG case study demonstrates how organizations can adopt advanced practices: real-time monitoring, AI personalization, transmedia storytelling with social dimensions, strategic influencer collaborations, and automation-human intervention balance.

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European Call Option Valuation Using the Monte Carlo Simulation Method Without And With Antithetic Variables

Evaluation Des Options D'achat Européennes A L'aide De La Méthode De Simulation De Monte-Carlo Sans Et Avec Variables Antithétiques

Dr. Boualem Slimi

University Saad Dahlab, Blida, Algeria

Dr. Redha Sakri

National High School for Hydraulic, Algeria

Abstract

The work of Itô, who developed a mathematical theory for modeling continuous stochastic processes, was used by Black & Scholes to develop an equation relating the value of the option to its determinants, which include the value of the underlying asset, volatility, strike price, risk-free interest rate, and maturity. In this study, we evaluate this type of option using the Monte Carlo simulation technique with antithetical variables. We also use the theoretical value obtained by the Black & Scholes model as a reference to test the effectiveness of this type of method in calculating the European call option.

Keywords: Call option, stake, risk-neutral reasoning, Black-Scholes, confidence interval, central limit theorem.

Résumé

Les travaux d'Itô, qui a développé une théorie mathématique pour la modélisation des processus stochastiques continus, ont été utilisés par Black & Scholes pour développer une équation mettant en relation la valeur de l'option avec ses déterminants qui sont notamment la valeur du sous-jacent, la volatilité, le prix d'exercice, le taux d'intérêt sans risque et la maturité. Dans cette étude, nous évaluons ce type d'options à l'aide de simulations de Monte Carlo sans et avec des variables antithétiques. Nous prenons également la valeur théorique obtenue par le modèle Black & Scholes comme référence pour tester l'efficacité de ce type de méthode dans le calcul de l'option d'achat européenne.

Mots-clés: Option d'achat, action, raisonnement risque neutre, Black-Scholes, intervalle de confiance, théorème centrale limite.

The Contribution of Football Academies to Sports Tourism

PhD. Student, Dimitrios Kothroulas

University of the Peloponnese, Greece

PhD. Student, Maria Christodimitropoulou

University of the Peloponnese, Greece

Abstract

This paper investigates the contribution of football academies to sports tourism, focusing on their role as drivers of development and enhancers of the local and regional economy. Sports tourism is a rapidly growing sector of modern tourism, combining engagement in sports with travel experiences and cultural interaction. Within this context, football academies especially those with organized structures and connections to professional clubs, play a multifaceted role. It presents ways in which academies contribute directly and indirectly to tourism: through organizing football tournaments, summer and winter camps, exchanges with foreign teams, participation in international events, and hosting athletes and their families. At the same time, local entrepreneurship is boosted, and sports and tourism infrastructure is upgraded. Reference is also made to examples of Greek regions that have leveraged sports as a catalyst for tourism development, as well as to international practices from countries like Turkey, which has significantly invested in sports facilities and hosts numerous academies and tournaments, attracting athletes from the Middle East, the Balkans, and Central Europe. The paper concludes that systematic support and strengthening of football academies can positively contribute both to the enhancement of sports and to the economic and social empowerment of local communities.

Keywords: Football academies, Sports tourism, Tourism policy, Sports infrastructure, International sports partnerships

Introduction

Sports tourism has become one of the most important sectors of global tourism, contributing significantly to the economic and social development of many regions as it is a field of intersection of sport, entertainment and mobility (Gibson,

1998:50). ²At the same time, football is the most popular sport in the world, with an enormous social and cultural impact. The correlation of these two phenomena — sports tourism and football — creates a dynamic where football academies play a key role as drivers of development.

These academies are not limited to the apprenticeship and training of young football players, but are active actors that attract young people and families, through the organization of sports events and international partnerships. This paper attempts to comprehensively analyze the way in which football academies contribute to sports tourism, as well as the economic, social and cultural impacts that arise from this interaction.

1. Theoretical framework

1.1 Definition and importance of sports tourism

Sports tourism is defined as any travel where the main motive is to participate in or watch sports activities. The phenomenon has expanded in recent years, thanks to the growing awareness of the benefits of physical exercise, well-being and social networking through sports. (Gibson, 1998:50). ³

The economic value of sports tourism is not limited to direct income from participation or tickets, but extends to multiple benefits that concern the local market: accommodation, catering, transport, entertainment and investment in infrastructure.

1.2 Role of football academies

Football academies have as their main mission the systematic education and development of young football players. However, academies today operate in a complex environment that combines sports education, social integration, cultural exchange and economic activity. (UEFA. 2021).⁴

Beyond sports training, academies play a role in sports tourism through the organization of sports events, collaborations with international bodies and hosting athletes and teams from abroad.

2. Mechanisms for the contribution of football academies to sports tourism

2.1 Organization of international and domestic tournaments

Academies regularly organize football tournaments, which often attract teams from various countries, generating significant tourist traffic. These tournaments are a magnet for athletes, chaperones and spectators, increasing the demand for hospitality, transport and entertainment services.

The international dimension of these events contributes to the promotion of the region at a global level and to the creation of cooperation networks between sports bodies.

² Gibson, Heather J. (1998). Sport tourism: A critical analysis of research. *Sport Management Review*, 1(1), pp. 45–76.

³ Gibson, Heather J. (1998). Sport tourism: A critical analysis of research. *Sport Management Review*, 1(1), pp. 45–76.³

⁴ UEFA (2021). *Grassroots Football Development Report*. UEFA. Available at: 6/2025
<https://www.uefa.com/insideuefa/football-development/>

2.2 Summer and winter training camps

Training camps bring together young athletes for intensive training in specially designed programs. Many academies take advantage of the good weather or ideal climatic conditions of their regions to attract athletes from other countries and regions.

These camps contribute to the extension of the tourist season, especially in areas with traditional seasonal tourism, and offer a steady flow of visitors and income.

2.3 International collaborations and exchanges

Through collaborations with academies and clubs from abroad, exchange programs for athletes and technicians, as well as joint events, are created. These exchanges promote cultural interaction and broaden the scope of sports tourism, attracting visitors at different times of the year.

2.4 Strengthening local entrepreneurship and infrastructure

The increased tourist traffic due to the activities of the academies creates demand for hotels, restaurants, sports shops, transportation and entertainment services. The need for modern sports facilities also encourages investment in infrastructure, which benefits both athletes and local residents.

3. Case studies: Greece and Turkey

The study of examples from different countries reveals the role that football academies can play in sports tourism, especially when there is a strategic approach and coordination between the public and private sectors. In this context, Greece and Turkey offer two characteristic but different approaches, based on the available resources, tourism infrastructure and the degree of internationalization of their academies.

3.1 Greece: Local practices, challenges and prospects

Greece, with the advantage of its natural environment, climate and strong tourism brand, has started to invest systematically in the exploitation of football to enhance thematic tourism. (Kaplanidou et al 2007:190). ⁵Many football academies in Greece already have an active role in creating a sports tourism stream, through:

3.1.1 Examples of successful actions

- Loutraki: The area has become an important sports tourism destination with the organization of international youth tournaments, camps and collaborations with clubs from Russia, Israel and the Balkan countries. The combination of natural beauty, easy access from Athens and good infrastructure enhances the potential of the area.

- Katerini – Pieria: Football academies in the wider area host international sports events and youth tournaments from countries such as the Czech Republic, Germany and Bulgaria, especially during the summer and autumn periods. The local government supports these actions with promotion and infrastructure.

⁵ Kaplanidou, Kyriaki & Vogt, Christine (2007). The Interrelationship Between Sport Event and Destination Image and Sport Tourists' Behaviours. *Journal of Sport & Tourism*, 12(3–4), pp. 183–206.

- Rhodes – Crete: Camps and summer sports events are organized in combination with holidays, attracting families of young football players, mainly from Scandinavia and Central Europe.

3.1.2 Characteristics and challenges of the Greek model

- Local initiative: Most actions come from the initiative of private academies or local authorities, with limited central coordination.
- Limited promotion: There is a lack of systematic international promotion of the tournaments, which limits internationalization.
- Seasonality: Some regions rely on summer tourism and have not developed strategies for the rest of the year.

However, Greece has the conditions for significant development, provided that cooperation between tourism and sports bodies is strengthened and a national network for the promotion of sports tourism through football academies is created.

3.2 Turkey: Strategic development and investment potential

Turkey is an example of a country that has integrated the development of sports tourism into its national strategies. In contrast to Greece, Turkey adopts a more centralized and strategic approach, with strong state support, encouragement of foreign investment and the emergence of regions as specialized “sports hubs”. (Zorba 2004).

3.2.1 Important examples and strategic practices

- Antalya: It is considered one of the most important bases for winter camps of professional and youth teams from Russia, Ukraine, Poland, Germany and Asia. It has state-of-the-art facilities, hotel complexes with football fields and specialized staff. (Sports City Antalya)⁶
- Istanbul – Izmir: Large academies such as Galatasaray, Fenerbahçe and Beşiktaş collaborate with European clubs for exchange programs, scouting camps and tournaments, attracting foreign visitors and athletes.
- Collaborations with foreign groups: The entry of foreign investors into the academies sector is indicative, mainly from Qatar and the United Arab Emirates, who finance infrastructure that simultaneously serves sports tourism and talent development.

3.2.2 Comparative advantages and applications

- Combination of tourism experience and professionalism: The packages offered to parents and children combine tourism, culture, gastronomy and football education.
- Long-term planning: Turkish authorities and municipalities invest in sports facilities as a strategic development option.

⁶ Sports City Antalya (n.d.). *Football camp in Antalya*. Available at: 5/2025
<https://www.sportscityantalya.com/training-camp-in-antalya/football-camp-in-antalya>

• Continuous flow of visitors: Thanks to the diversification policy (summer camps, winter preparations, youth and professional team tournaments), Turkey maintains a sports tourism flow throughout the year. (Zorba 2004:327)⁷

4. Economic, social and cultural impacts

Football academies, through their active participation in sports tourism, have multiple impacts at local and regional level, which extend beyond pure sporting activity and significantly affect the wider society and economy.

4.1 Economic impacts

The presence of athletes, coaches, chaperones and spectators travelling for tournaments, camps or training activities creates increased demand for tourism services, such as accommodation, transport, catering and recreational activities. This demand translates into significant economic benefits for local businesses, which often experience increased revenue, particularly in periods not associated with traditional tourism (e.g. outside the summer season).

At the same time, the need to upgrade sports facilities and infrastructure leads to investments that contribute to job creation, both directly (in construction, hospitality services) and indirectly (in support and trade sectors). The development of these infrastructures improves the attractiveness of the area for further tourism and sports activities, creating a positive cycle of development.

Furthermore, the economic mobility generated through sports events contributes to strengthening the business environment of the area, facilitating the establishment of new businesses related to sports, catering and tourism. (Higham, 2005).⁸

4.2 Social impacts

The development of sports academies and the hosting of sports events strengthen the sports culture in the local community, motivating young people to engage in sports and adopt a healthier lifestyle. Participation in organized sports activities promotes the development of social skills, such as teamwork, cooperation and discipline.

Meeting and collaborating with athletes from other regions and countries creates opportunities for social integration and solidarity, strengthening the sense of community and local cohesion. Sporting events function as social events that bring together different social groups and promote mutual understanding.

Furthermore, the promotion of sports tourism and the promotion of sport as a tool for social development can act as a means of preventing social phenomena, such as delinquency, especially among young people.

4.3 Cultural impacts

The international exchanges of athletes, coaches and teams that take place through football academies create significant opportunities for cultural interaction and understanding. The presence of people from different cultural backgrounds

⁷ Zorba, Esra, Miçoogullari, B. O., Zorba, E., & Tekin, A. (2004). Sports tourism in Turkey. *Journal of Sport & Tourism*, 9(4), pp. 325-329.

⁸ Higham, John (2005). *Sport tourism destinations: Issues, opportunities and analysis*. London: Routledge.

enhances the multiculturalism of the local society and offers the opportunity for intercultural education and dialogue.

This cultural dimension contributes to the promotion of local identity at an international level, as well as to the strengthening of the image of the region as an open and welcoming destination. Through sports events, participants and visitors have the opportunity to experience local traditions, gastronomy and cultural elements, thus enhancing intercultural exchange and mutual understanding.

5. Challenges and development strategies

The development of sports tourism through football academies faces a number of challenges, which must be addressed with appropriate strategies in order to achieve sustainable development and maximize benefits. A more detailed analysis follows.

5.1 Challenges

5.1.1 Infrastructure

The lack of adequate, modern and well-maintained sports facilities is a major limiting factor. Without appropriate stadiums, training centers and hospitality areas, the ability to organize major tournaments or attract international teams is significantly reduced. In addition, the infrastructure regarding hotels, transport and leisure facilities must be at a high level to serve the needs of athletes, coaches and chaperones.

5.1.2. Organization and management

The administration of academies and sports events requires professionalism, planning and effective management. Many times, academies do not have specialized staff or resources to organize international events, which limits the visibility and scope of the actions. In addition, the lack of cooperation between the bodies involved (public organizations, private companies, local governments) creates coordination problems.

5.1.3. Limited internationalization and visibility

The lack of systematic international promotion of sports activities and tournaments prevents the attraction of foreign teams and visitors. Without a targeted marketing strategy and networking with foreign clubs, the potential of academies is limited to the domestic audience.

5.1.4. Seasonality

Many regions rely mainly on the summer season to organize camps and tournaments

5.2 Development strategies

To address the above challenges, the following strategies are proposed:

5.2.1 Creation of a network of academies and tourism organizations

Cooperation between academies, tourism organizations, local governments and private businesses can create synergies that will enhance the visibility and organization of actions. The establishment of a national or regional network that will coordinate action and jointly promote the events is a key priority.

5.2.2 Investment in high-standard sports facilities

The creation or upgrading of modern training centers, stadiums and hospitality infrastructure will enhance the ability to organize major and international events. Access to modern facilities is a prerequisite for attracting foreign teams and investors.

5.2.3 Professional organization and management

Training executives in the management of sports events, adopting modern marketing practices and using digital tools for the promotion and management of events will increase the effectiveness and sustainability of actions.

5.2.4. Promotion through digital media and international collaborations

The use of social networks, websites and digital communication for the targeted promotion of academies and tournaments to an international audience is essential. At the same time, the conclusion of agreements and exchanges with academies and clubs from abroad will expand the network and attract new visitors.

5.2.5 Integrating sports tourism into national tourism strategies

Establishing sports tourism as a priority at the national level, through policy formulation, incentives and funding of infrastructure projects, will contribute to the long-term development of the sector. The interconnection of sports and tourism will enhance the country's visibility as a sports destination.

5.2.6 Developing programs to diversify and extend the tourism season

Organizing winter camps, training programs and smaller events outside the summer season can smooth out seasonality and maintain stable traffic and revenue throughout the year.

These strategies, when implemented in combination and consistently, can create a sustainable and dynamic model for the development of sports tourism through football academies, contributing both to the strengthening of sports and to the local and national economy.

6. Conclusion

The case study of Greece and Turkey shows that the contribution of football academies to sports tourism depends largely on strategic planning, infrastructure and promotion. While Greece has strong natural and cultural advantages, Turkey has invested more systematically in the exploitation of football for tourism purposes.

With the appropriate political will, coordination of institutions and international promotion, Greece can capitalize on the potential of its academies and develop into a central sports tourism destination in Southeastern Europe.

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**Analyzing the Effects of European Union Accession Process on Good Governance in
Türkiye (2002-2013)**

Muhammet Emin Ayyıldız

Master Student, *Ankara Yıldırım Beyazıt University, Türkiye*

Abstract

The European Union (EU) accession process has been one of the primary external driving forces behind governance reforms in Türkiye. Democratization and institutional strengthening gained momentum between 2002 and 2005. However, as accession talks stalled from 2005 to 2013, progress in Türkiye-EU relations weakened, reducing the EU's influence on good governance reforms. There is a need to explore how external political obligations impact domestic governance. By analyzing governance indicators—such as rule of law, transparency, and accountability—across different phases of Türkiye-EU relations, this study assesses whether early EU-driven reforms led to long-term development or short-term adjustments. EU accession reforms between 2002 and 2005 resulted in increased judicial independence, enhanced civil liberties, and improved governance institutions. In contrast, the period between 2005 and 2013 showed stagnation in reform efforts and a decline in momentum. Drawing on EU progress reports, World Bank governance indicators, and official documents, this thesis conducts a comparative analysis of the EU accession process's impact on Türkiye's governance. Findings suggest that EU-driven reforms were impactful in the short term but failed to become institutionalized. As Türkiye's political landscape evolved and EU influence declined, reform efforts gradually weakened.

Keywords: Good Governance, EU Accession Process of Türkiye, Political Reforms, Türkiye, European Union (EU)

The Emotional And Polarizing Effect of The Language of Political Discourse on Social Media Platforms: An Analysis on The 2023 Elections

Sosyal Medya Platformlarındaki Siyasal Söylem Dilinin Duygusal ve Kutuplaştırıcı Etkisi 2023 Seçimleri Üzerine İnceleme

Ferhat Şenoğul

Master Student, Süleyman Demirel University, Türkiye

ORCID ID: <https://orcid.org/0000-0001-6649-5817>

Abstract

This paper will examine the emotional and polarizing effect of the language of political discourse on social media platforms and the 2023 elections. The interaction of emotions and thoughts between people is called communication. Since the history of the first age, people have needed to live in a certain order and have made changes in order to ensure social order in the process. This process of changes leads us to the concept of politics. Politics is a word of Arabic origin and comes from the same root as the word groom, meaning horse training. Politics can be explained as the efforts of individuals or institutions to impose their ideas and opinions on social issues on the society. Social media offers people the opportunity to communicate and interact without time and space limits. Today, politics in social media, which can be characterized as a new public sphere, has an impact on people. Social media applications, which are constantly developing and the number of users is rapidly increasing, have become one of the most effective areas where political communication is used. Politics has become digital and is carried out through these applications. The discourses used by politicians during election processes affect the attitudes and thoughts of voters. In this study, the language of political discourse used in social media applications will be examined in terms of emotionality and polarizing effects. By analyzing political content, the emotional tone and polarizing effects of political discourse will be evaluated. The findings of the research aim to emphasize the importance of ethical and responsible language use in political communication by revealing the effects of the language used in social media on society during the

election process. In the conclusion, recommendations are given on communication strategies and social media practices to reduce political polarization.

Keywords: Politics, Political Communication, Social Media.

Özet

Sosyal medya platformlarındaki siyasal söylem dilinin duygusal ve kutuplaştırıcı etkisi ve 2023 seçimleri üzerine inceleme yapılarak bu bildiride kullanılan dilin duygusal ve kutuplaştırıcı etkisi üzerine incelemeler yapılacaktır. İnsanlar arasındaki duygu ve düşünce etkileşimine iletişim adı verilir. İlk çağ tarihinden itibaren insanlar belirli bir düzen içerisinde yaşama ihtiyacı duymuşlar ve süreç içerisinde toplumsal düzenin sağlanabilmesi için değişimler gerçekleştirmişlerdir. Bu değişimler süreci bizi siyaset kavramına yönlendirir. Siyaset arapça kökenli bir kelime olup, at eğitimi anlamına gelerek seyyis kelimesi ile aynı kökten gelir. Siyaset kişi veya kurumların toplumsal konularda fikir ve görüşlerini topluma kabul ettirme çalışmaları olarak açıklanabilir. Sosyal medya insanlara zaman ve mekan sınırı olmadan iletişim ve etkileşim imkanı sunmaktadır. Günümüzde yeni bir kamusal alan olarak nitelendirilebilen sosyal medyada siyaset insanlar üzerinde etkisini göstermektedir. Sürekli gelişen ve kullanıcı sayısı hızla artan sosyal medya uygulamaları siyasal iletişimin kullanıldığı en etkin alanlardan biri haline gelmiştir. Siyaset dijital bir hal alıp bu uygulamalar aracılığıyla yürütülmektedir. Seçim süreçlerinde siyasiler tarafından kullanılan söylemler seçmenlerin tutumunu ve düşüncelerini etkilemektedir. Çalışmada sosyal medya uygulamalarında kullanılan siyasi söylem dili, duygusallık ve kutuplaştırma etkileri açısından incelenecektir. Siyasal içerikler incelenerek, siyasal söylemin duygusal tonu ve kutuplaştırıcı etkilerinin değerlendirilmesi yapılacaktır. Araştırma bulguları seçim sürecindeki sosyal medyada kullanılan dilin toplum üzerinde yarattığı etkileri ortaya çıkararak, etik ve sorumlu dil kullanımının siyasal iletişimdeki önemi üstünde durmayı amaçlamaktadır. Sonuç kısmında siyasal kutuplaşmayı azaltmaya yönelik iletişim stratejileri ve sosyal medya uygulamaları üstüne öneriler verilmiştir.

Anahtar Kelimeler: Siyaset, Siyasal İletişim, Sosyal Medya.

Assessment of Blockchain Technology in Saadu Zungur University, Gadau Bauchi State

Dr. Aliyu Ahmad

S a'adu Zungur University, Nigeria

Ahmad Ibrahim Isah

Ahmadu Bello University, Nigeria

Bilkisu Lawal

PhD Student, Umaru Musa Yar'Adua University, Nigeria

Abstract

This study explores the potential and readiness for the adoption of blockchain technology in the library system of Sa'adu Zungur University, Gadau, Bauchi State. As academic libraries face increasing demands for transparency, secure data management, and efficient resource sharing, blockchain offers promising solutions through its decentralized, immutable, and tamper-proof architecture. The research assesses the level of awareness among library staff and users, evaluates existing digital infrastructure, and identifies possible applications such as digital rights management, secure lending systems, decentralized cataloging, and improved access to academic resources. Data were collected using questionnaires, with analysis highlighting gaps in knowledge and infrastructure but strong interest in innovation. The study concludes that while current implementation is minimal, blockchain holds significant promise for enhancing library operations. It recommends targeted training, infrastructural upgrades, and policy development to enable a gradual integration of blockchain-based systems in the university library.

Keywords: Assessment, Blockchain, Technology and Saadu Zungur Uni.

Cultural Representation in Wedding Photographs: A Semiotical Analysis
Düğün Fotoğraflarında Kültürel Temsil: Göstergebilimsel Bir İnceleme

Şule Açıl

Erciyes University, Türkiye

Abstract

This study aims to reveal the cultural meanings embedded in wedding photographs taken in different periods in Turkey through a semiotic analysis. Wedding rituals serve as significant cultural narratives in which societal values, beliefs, and norms are visually represented. Using the semiotic method, the study analyzes the denotative and connotative meanings of signs such as clothing, posture, setting, and accessories in wedding photographs. Based on Roland Barthes' theory of denotation and connotation, the research interprets how visual signs reflect transformations in gender roles, aesthetic preferences, and cultural norms. In this regard, the study contributes to the field of communication by exploring the relationship between media, culture, and visual representation.

Keywords: Semiotics, wedding photography, cultural representation, gender roles, media, visual

Özet

Bu çalışma, Türkiye'de farklı dönemlerde çekilmiş düğün fotoğraflarını gösterge bilimsel yöntemle analiz ederek bu görsellerin kültürel anlamlarını ortaya koymayı amaçlamaktadır. Düğün ritüelleri, toplumsal değerlerin, inançların ve normların görsel olarak temsil edildiği önemli kültürel anlatılardır. Göstergebilimsel çözümleme yöntemiyle, düğün fotoğraflarında yer alan giysi, poz, mekân ve aksesuar gibi göstergelerin hem bireysel hem toplumsal düzeyde taşıdığı anlamlar incelenmiştir. Roland Barthes'ın düz anlam (denotasyon) ve yan anlam (konotasyon) ayrımı temel alınarak yapılan analizde; toplumsal cinsiyet rolleri, estetik anlayış ve kültürel normlardaki dönüşümler yorumlanmıştır. Bu yönüyle araştırma, medya,

kültür ve görsel temsil ilişkisini inceleyerek iletişim bilimleri literatürüne katkı sağlamaktadır.

Anahtar Kelimeler: Göstergebilim, düşün fotoğrafçılığı, kültürel temsil, toplumsal cinsiyet, medya, görsel kültür, Barthes

A Theory of The Thermoconductivity of Matter and Materials

Dr. Octavian Bejan

Centre for Criminological Prevention and Assistance, Moldova

Abstract

As far as criminological research is concerned, the Republic of Moldova is currently in the highest rank in the world, alongside other countries, because great criminological discoveries have been made here. As far as criminological education is concerned, the Republic of Moldova ranks second in the world, having a university criminological specialization (Criminology and Criminal Sciences, bachelor's degree, and others at master's and doctoral level), higher criminological education establishments and various criminology textbooks (general criminology, special criminology, methodology of criminological research and analysis). The criminological practice has been continuously weakened since the establishment of the Republic of Moldova until now.

Keywords: Thermoconductivity, thermoconductivity of materials, construction, clothes

Warmth has great significance for human life. In the bodily sense, we have no health, no bodily labor power, and no life at all, without the warmth that our bodies require. Man has less strength and a greater need of rest when it is colder than his body requires. The body expends a great deal of power to warm itself. On the soul side, we have no power for labor of thought and happiness without the warmth which the body requires. Cold makes you unable to enjoy life or the beauty of the world. It numbs both body and soul. Not even the mind can work as well.

In view of the importance of warmth to the human body, we may say that **man arose in that part of the earth where warmth was favorable to him**. We can add a supposition, even an opinion. We start in our judgments from the fact that people find it hard to make such generalizations. They need a great deal of experience to make such a generalization. Forests burned quite often in ancient times. Due to frequent forest burning, man learned to make fire and to eat baked, roasted food (meat, fruit, etc.). This enabled them to survive even in the coldest places on earth.

There are many ways of keeping the body warm. The peoples that live in the coldest places on earth have taken the way of warmth through clothing, given the circumstances of their life. On the other hand, peoples living in the north also need warm homes. The need for warmth has also increased because of the recklessness of the people. They began to build very large dwellings, taking after their fellows in warm places. They didn't realize that they don't have the expense of heating their homes. The inhabitants of the colder part of the earth found themselves with increased expenses.

Dwellings are made of some masonry materials. According to our theory, **all matter and materials can be divided into (a) thermoconductive matter and materials and (b) thermononconductive matter and materials**. *Thermoconductive* are matter and, in general, materials through which heat or cold passes, and moves, and *thermononconductive* are matter and, in general, materials through which heat or cold does not pass, and does not move.

Dwellings made of thermoconductive materials are cold and those made of thermononconductive materials are warm. In fact, in rooms made of thermoconductive materials, there's not much to heat beyond the air. Houses made of thermoconducting materials can also be heated well, but at much greater expense and over a much longer period of time. On the one hand, it takes more heat to heat what is cold, and on the other hand, heat is always being lost from houses made of thermoconducting materials, i.e. the heat goes out into the world.

Thermononconductive is wood, leather and, to a lesser extent, clay mixed with straw (they are also, in a way, wood). All the woody materials such as cloth, paper (wallpaper) or reeds that many people used to cover their homes are also thermononconductive. Cloth can be made from weeds, i.e. wood, but also from sheep, goat, etc. Paper and other materials are more likely to have low thermal conductivity. Some matter and materials have a lower thermal conductivity at low temperatures and a higher thermal conductivity at high temperatures or the opposite.

Thermoconductive is metal, glass and stone of all kinds, such as concrete, cement, fortanium or brick (burnt clay).

Our scientific research has revealed that even bricks which have voids in them, whatever the material they are made of, i.e. burned clay or cement, are highly thermoconductive. The theory, which, let us say, is true, that air is thermononconductive, has been worked on, only a mistake has been made, in our opinion. Air has been put into thermoconductive materials, and then its usefulness has been lost. The cold or heat passes through the thermoconductive parts of the materials (fired clay or cement bricks). It was thought that this would reduce heat or cold loss, which seems to be wrong. The sides of the bricks (fired clay or cement) are large enough to absorb a lot of heat or cold. Here we must also take into account the rapidity with which heat and cold move through the thermoconductive material. We mean that if heat or cooling moves quickly through a material or a kind of matter, then even small surfaces will lose a lot of heat or cooling.

Our scientific research also challenges the view that air is not a thermoconductive. Our doubt comes from the data of the following scientific experiment. We take a thermoconductive material, say glass or iron, for they are more thermoconductive than stone. We place two sheets of glass at a distance of, say, one or three centimeters from each other, and between them we put a thermononconductive material, say wood or, less, plastic. The thermoconductive material must be placed in such a way that the sheets of glass do not touch. There must not be any other thermoconductive material between the sheets of glass, because it will make a thermoconductive bond between them. We use a source of heat or cold, which we point at one of the glass from outside. We find that the second glass, the one to which the source of heat or cold is not directed, is quite warm or cold, even though it is separated by a layer of air from the other. We emphasize, some glass have been made in such a way that they repel some of the sun's rays. But these glass (usually windows) have no power against the cold, i.e. the cold passes through them easily. In other words, some glass is thermononconductive to heat and also thermoconductive to cold. The same can be said for all kinds of matter and materials. **So, matter and, as a consequence, materials have a thermoconductivity of heat unlike that of cold, i.e. heat moves through them to a degree and with a speed and velocity that is different from the degree and rapidity of cold.** This is only natural, since heat and cold are physical processes which are not similar. In fact, the very fact that the air in the world, the sky, can be warm, even hot, and cold, even very cold, proves that it is a thermal conductor, only weaker, perhaps we could call it partially a thermoconductor or semiconductor.

It sounds amazing, but all so-called modern masonry materials are thermoconductive. Science has done more harm than good to mankind in this respect. A lot of people have lost their health, their happiness and even their lives because they have moved from backward dwellings (made of wood, earth or clay) to modern dwellings (made of concrete, stone or burnt clay). We are talking about those who did not have enough means to heat cold houses sufficiently. A great defeat for science, a great defeat.

We believe, in fact, that science has always been and that all discoveries of all times are scientific. We can only speak of a development, in leaps and bounds, of the methodology of scientific knowledge, which does not cease even now. But all scientific knowledge develops in leaps, as Thomas Khun has rightly pointed out. We can put it another way. First, there is a multiplication of scientific knowledge (quantitative accumulation), followed by a deeper understanding of the knowledge gathered (qualitative leap), which means the acquisition of essentially new scientific knowledge (development of scientific knowledge). We will not dwell any longer on this, as we have done so extensively in our works on the theory and methodology of science.

As a result, scientists had to invent mineral wool, polystyrene and other similar materials, which they did a century later. These materials are thermononconductive. One of their drawbacks is that they are brit brittle and do not allow rooms to breathe. They require airing, which means new building and maintenance costs. Wood is hard, it lets the room breathe, and does not let the dampness rise or fall too much. The downside of wood is its fear of water, unlike polystyrene and other materials made from thermononconductive plastics. A wooden house can therefore be left alone for a long time, while a house made of modern masonry requires a lot of care (airing, drying, etc.).

Many people think that thermononconductive materials keep warmer the thicker they are. Our research has shown that the measure of the material's thermoconductivity (as opposed to the cold it must resist) is decisive. In other words, thickness only matters if a material has a thermal conductivity close to medium.

The division of materials into thermoconductive and thermononconductive is qualitative. Some kind of matter and materials have, in fact, very or very-very-low thermal conductivity. We could say that it is negligible. New scientific research is required, whereby the thermo-conductivity of every kind of matter and every material is measured. Measurements need to be made of both hot and cold thermo-conductivity, because it is not the same, as our scientific research, carried out by the observational method, proves. This knowledge will be useful to practitioners. Our scientific research has shown that thermally conductive materials can be distinguished from thermononconductive materials by touch. We put our hand on a material, if it has the temperature of its surroundings or of the source of heat or cold, then it is a thermally conductive material.

According to our scientific researches, **a critical point in thermal conductivity is freezing**, but there are other thresholds that make qualitative differences.

It is essential to understand that **heat, like everything else, cannot be taken from anywhere.** A warm house, i.e. a house made of thermally conductive materials, does not give heat, but keeps it in. You need a source of heat, i.e. the sun's rays coming through the window into the house, a stove, a boiler or something else. The walls, floors, attics, doors and windows of the building only retain the heat that flows into the room. Theoretically, if we put some heat into a room that is made of fully thermononconductive materials and there is no heat escaping from this room, then the heat put into such a room will stay there forever. Basically, there are many places where heat is lost, that is, it goes outside and warms the world a little bit. For example, we open and close the door, so some of the heat, like in winter, or some of the coolness, like in summer, is lost. There are cracks in the walls, the attic and the floor, on the edges of the door or the windows... Wind greatly increases heat leakage from houses, according to our scientific research, carried out by observation. It not only strongly irritates the movement of air, but also penetrates easily through the smallest cracks or holes, particularly through crevices. We will give an example to show the cooling power of wind. In a 30 square meter room, a 1-2 millimeter crack on the edge of the walls causes heat loss of more than 50 % in only a few hours, despite a heat source that provides the daily 25 degrees Celsius, because of a medium to strong wind. This is why scientific research is needed to quantify heat loss due to breakages with great accuracy. Our scientific research, carried out experimentally, has also shown that blowing heat sources (conditioner, stove with blow...) are the best and most effective at reducing wind chill by more than 50 %. It is true that there are few windy days in the cold season of the year, as in the other seasons. The way in which the wind moves is also of decisive importance, for its power is not sufficient to penetrate a dwelling. Today's windows have glass, and glass is a highly thermoconductive material, which makes the heat or cooling loss very, very high. The bigger the windows, the greater the losses. The tendency is to have large and even very large windows, i.e. the whole wall. It leads to large or very large heat losses, considering the unit of heat loss that a pane of glass has. One way to significantly reduce heat or coolness loss through window glass is to stick cellophane or other thin material, easily and cheaply attached, transparent, easily clingable material to the glass. Plastic is a material that has a comparatively low thermal conductivity, which

means that heat or cold is relatively difficult to pass through it. According to our scientific research, plastics differ markedly in their thermal conductivity, which must be taken into account. Previously, a piece of leather or a blister was stretched over the window, which had a much lower thermal conductivity. The downside was that they let much less light into the house. Even masonry or any kind of matter might not be 100 percent thermally non conductive, which means that heat or cooling will leak out of the house, although very or very-very slowly. After all, humans need fresh air, which makes it impossible to keep the warmth in forever. We can, in theory, devise vents that heat the air coming into the house, only to have heating again, which changes nothing. We must, of course, bear in mind that the human body makes heat. In other words, if we make a house of heat-conducting materials, then we not only retain the heat put into the house, but we also have a continual increase of heat and decrease of cold, if the heat given by the human body and other creatures is greater than the heat that escapes because the materials of which the house is made are not fully heat-conducting and because we use the door to get in and out. Other things give also warmth, like cooking food or hot baths. But these are all particularities that don't change the core.

It is also necessary to bear in mind that **the speed with which heat or cold moves through different kinds of matter and materials also differs**. For example, the same amount of heat or cold may pass through one material or kind of matter in one hour, and through another material or kind of matter in another material or kind of matter in one day.

From what we have said, a question arises: should the thermally conductive masonry material or, we might call it, in some circumstances, thermal insulating, be placed outside or inside the dwelling or other building, when they are not made of only thermally non conductive materials, like wood? The answer to this question must also take into account the following factor, which has to do with the particular needs of a human being: if we put the thermally conductive material outside the dwelling or other building, then the dwelling or other building will heat up slowly but will also cool down slowly, whereas if we put the thermally conductive material inside the house or other building, then the dwelling will heat up quickly but will also cool down quickly. For example, it is more appropriate to put a thermally conductive masonry material inside a dwelling-house, because the owner comes rarely and for a short time, which requires the dwelling to be heated in a short time. He who uses heaters which are only turned on in the evening, when the master returns from work, also needs a quick heating. Thermally conductive masonry materials may also be put outside when such heaters are used, but only if the house does not cool down before the master returns from work, he starts the heater and waits for the house to warm up again.

We talked about masonry materials. As we said, man needs not only a dwelling but also warm clothing. *Warm clothing is subject to the same laws of thermo-conductivity and thermononconductivity as any other material or kind of matter.*

Let's particularize this knowledge a bit. In order to cope with the cold or to prevent getting cold, we had to undertake scientific research to find the warmest clothes. Our scientific research has shown that clothes can give complete warmth. The best example of this are the clothes of those who live on the frozen lands. We must understand that clothes, like any other material or kind matter, do not give warmth, none of them, as we have said before. Our bodies give warmth. It gives us precisely 36 degrees. The wind and cold around our body dissipate it. It is therefore necessary to preserve this precious warmth somehow. Some clothes let the heat out,

and the cold in to a greater extent, and others — to a lesser extent. Heat does not get out and cold does not get in through clothes through which no water or rain (waterproof) can pass. Therefore, if we make clothing from a thermo-conductive material, then we will have enough warmth, we will not freeze. Heat leakage remains. So it's not only the type of material (leather or fur) that matters, but also the cut. The cold can get in at the lap, wrists and collar. If clothes are tight in these places, then wind or cold cannot get underneath them and dissipate heat. Long garments, down to the knee or below, better keep in the great warmth given by our bodies. Once the shepherds wore ankle-length clothes. It remains to cover our hands with gloves, our head with a cap and our face with a turtleneck. The warmest pants are made of two or more layers of material, even better, leather with fur. Even warmer are pants, through the outer material of which no water passes. The warmest hats are those made of the fur of raven, rabbit, castor...

In the light of the theory which I have presented in this scientific paper, we may also speak of other kinds of matter. One of them, for instance, is, for example, food and dishes cooked from them. We take some of them out of the refrigerator colder than others. One factor is, of course, the temperature of the water in the food. They still have a significant impact on human health, so they require a proper scientific investigation.

In the light of the theory which I have presented in this scientific paper, we may also speak of other kinds of matter. One of them, for instance, is, for example, food and dishes cooked from them. We take some of them out of the refrigerator colder than others. One factor is, of course, the temperature of the water in the food. They still have a significant impact on human health, so they require a proper scientific investigation. It seems to us that it necessary a scientific problematization, which could open a way to deepen the knowledge of this side of the world and, as a result, to develop the practice and improve people's lives. Much is said and written about heat and cold, but no one knows what they are. If we look at the facts and knowledge gathered so far from another angle of thought, then we realize that there is no heat or cold without a carrier. They are always connected with something, they cannot be separated from their carriers. Perhaps, we do not have enough knowledge of the world, though the eye of scientific knowledge is supposed to have reached to the smallest part of the world. Some scientists, for example George Thomson (Inspiration and Discovery, 1973), doubt it, believing that scientific knowledge has stopped at the photon, i.e. has reached the dead end. Without light, it can go no further, it cannot penetrate the black darkness of the world. Heat and cold are similar in this side to time and space. But there is a difference. Heat and cold are opposed to each other, and there is no such connection between space and time. There are other such gaps in scientific knowledge. For example, we still do not know what energy is, even today, even though we talk and write a lot about it. Energy remains a great unknown, along with space, time, heat, cold and others. Nobody knows what energy is. Why not? Is it not matter? If it is matter, what is it made up of? Is energy made up of atoms, electrons...? If so, it wouldn't be a problem to see what it's made up of, given the means that science has today. If energy and the others are made up of something else, then what is matter? What makes up the uncovered world? What is the place of matter in the world? Must we also speak of other kinds of matter? What is the connection between all kinds of matter, or what should they be called? What else do we not know that all the others reflect upon the world we know? The scientific world has yet to clarify this, in order to make great leaps in their knowledge. Perhaps the

facts gathered by empirical scientific researches are enough, except that theoretical scientific researches are lacking, in order to interpret these facts or to acquire other scientific knowledge from these facts, also theoretical. A beginning can be the collection of all the knowledge about energy, or space, or time, or, heat, or cold, or whatever, in a work. Suppose that it is necessary to bring together knowledge from all branches, i.e. physics, chemistry, biology, physiology and so on. The gap in knowledge which I have mentioned may also conceal the reason for the noticeable, if not great, difference between the heat of winter and summer. The degrees are the same, the humidity is the same, seemingly all factors are the same, but people feel summer heat differently from winter heat. There's something scientific knowledge is missing.

In conclusion, we shall say that the theory of the thermo-conductivity and thermo-non-conductivity of matter and materials, which we are presenting to the scientific world and to practitioners, opens up great possibilities for preserving the heat and coolness needed by man, both in dwellings and clothing. Moreover, it gives the power to think differently about all kinds of matter and materials. As a result, man will be healthier and happier, and the society will have less expense for heating or cooling, and greater power for laboring with arms and mind.

A Few Pages from the Past of Criminological Research And Education in the Republic of Moldova

Dr. Octavian Bejan

Centre for Criminological Prevention and Assistance, Moldova

Abstract

As far as criminological research is concerned, the Republic of Moldova is currently in the highest rank in the world, alongside other countries, because great criminological discoveries have been made here. As far as criminological education is concerned, the Republic of Moldova ranks second in the world, having a university criminological specialization (Criminology and Criminal Sciences, bachelor's degree, and others at master's and doctoral level), higher criminological education establishments and various criminology textbooks (general criminology, special criminology, methodology of criminological research and analysis). The criminological practice has been continuously weakened since the establishment of the Republic of Moldova until now.

Keywords: science, criminology, research, education, practice.

I would like to start my scientific communication with a word of congratulations to the hosts on the organisation and conduct of this scientific meeting. Indeed, we

cannot understand some things that are happening today or will happen tomorrow without understanding what happened in the past. Knowing the past helps us to better measure the fruits of our work today. Last but not least, knowledge of the past is a reward for the work of our ancestors and a good lesson for the young people of today and tomorrow.

After the establishment of the Republic of Moldova, **criminological research** took a great step forward, thanks to the efforts of criminologist Valeriu Bujor, who returned in 1992 from Moscow, and of those who supported him and stepped on the path of criminology. This is proved by the bibliographical data collected, processed and edited by Valeriu Bujor, Octavian Bejan, Steluța Cipovenco, Sergiu Ilie, Valeriu Negară, Valeriu Țurcan and Igor Ursan. The data presented in one and other papers are also proving. We have to admit that everything Valeriu Bujor has done in the Republic of Moldova are things he has seen and learned during his studies and work in Moscow and Volgograd (Russia). These criminological achievements were also supported by good people who understood their public significance, even if they did not do criminological research. In fact, thanks to the great persistence of the criminologist Valeriu Bujor and those who supported him, there has been a great increase in the number of works not only in criminology, but also in law, forensics and other branches of science.

In the time covered by our research, great criminological discoveries have been made. These great criminological discoveries have placed the Republic of Moldova, without any merit, among the leaders of the world. Romania and Canada have lost these achievements, since the criminologists who made them have tried to move to these countries. The scientific world, and the legal world in particular, helped these great achievements to a very small extent. They were due to the enormous determination of real scientists who embraced criminology. It is true that the deeds of some true criminologists in the Republic of Moldova have also done much harm. Neither politicians, nor journalists, nor other scholars can boast in this regard.

The fact that all those appointed have hindered rather than helped criminological research is proved by the fact that criminological research units have either been established or disbanded during the thirty years since the establishment of the Republic of Moldova. State criminological research units (the Scientific Research Centre of the "Stefan cel Mare" Police Academy of the Ministry of Internal Affairs of the Republic of Moldova) and private ones (the College of Criminology and the University of Criminology, and the Institute of Criminology is not accredited even today, i.e. after thirteen years of attempts deliberately curved) have been set up, but they have not met the country's needs even in terms of the number of criminological researchers. As we keep saying, the country needs at least fifty scientific researchers in the criminology branch, in order to strengthen the quantitative side of criminological research. If criminological researchers are also teachers, then at least one hundred such specialists are needed.

The scientific fate of those who made these great criminological discoveries is also gratifying. They had a mixed fate, even if some did better and others — worse. Most of all, lawyers have hindered the development of criminological research. All this proves that the public as a whole, but especially law enforcement workers, have not yet understood the significance of criminology for crime prevention. In fact, we believe that there is a deep contempt for the people, the nation, the country and a strong inclination towards its welfare.

The downside is that a lot of criminology papers, like law and forensics, are very, very bad. They are mostly compilations and plagiarism. You rarely come across a small criminological discovery. Plagiarism and compilation are so badly done that opposing views are sewn together like nuts on a wall. These ostriches-camels are just as motley from the linguistic point of view. It is clear that the makers of scientific works have understood little of what they read. Moreover, we find a failure to understand the various criminological and scientific theories even in the works that some authors have tried to write with their own minds and heads. Perhaps a simile on their understanding would be the clumsy playing of the violin, which "scratches" your hearing, only these writings "scratch" your brain. Do you realise how difficult it is for a true scientist to talk to them on scientific, criminological or more remote topics. It makes you laugh when you see them running around with titles, degrees or big medals.

If we look, on the one hand, at the size of the criminological discoveries and, on the other hand, at the scientific and scientific-educational titles, positions, ranks, medals and all the others that those who have made these discoveries have received, then we see a great mismatch. These facts are evidence that science and the society are ruled by injustice and iniquity. In the light of these facts it becomes clear the lack and smallness of scientific discoveries in the multitude of criminological and other works.

It is questionable that most criminological papers have not been written by criminologists. We put it this way: objective necessity compels jurists and criminologists to do criminological research, and their subjective inclinations make them reject and hinder the development of criminology in the country.

In order to better understand what we have said, we will say that the society of the Republic of Moldova are broken and about to be destroyed by crime (dismantling of the state, change of political or economic order...).

Despite all these evils, an essentialist criminological school has emerged. The small number of scientific schools in the world speaks to the significance of this achievement. The criminologist Valeriu Bujor struggled to make it happen, but it would not have come into being if no one had joined in. It is true that those who did join did so because they saw the possibilities it opened up in terms of knowledge of crime.

The criminological knowledge acquired by true scientific researchers allows for a one hundred percent prevention of crime or, in circumstances other than those required by theory, a reduction of crime to a much greater extent than law enforcement agencies and politicians are able to do today. If only there were those who could understand them and use them skilfully.

It must be said that criminologists in the Republic of Moldova who have done scientific research have equipped practitioners here and around the world with a number of criminological analyses (analyses, predictions and measurements of crime prevention work) of great significance.

As far as crime prevention is concerned, we would say that no major or medium-sized scientific breakthroughs have been made in the field of law or forensics, and we know even less about forensic medicine. We don't see, usually, an understanding of what legal research is in the legal world. The development of law is only done by pointing out logical inadequacies by scientific researchers and unbridgeable weaknesses by practitioners. There can be no deeper changes. What is

most disappointing is that they don't even want to pretend this is the case. They are so easily satisfied with a little trifling that we say what we have said here for future generations. But there is no one to prepare these generations. They will have to make something better, using more of their innate intelligence. Today's generations are very weak. We can't imagine anything worse. Nor does the last generation give much hope (we have made this measurement according to a methodology which we have devised and which we will share with the world in a future work, if it should be, in view of a number of very unfavourable circumstances). We suppose that one of the factors is the tendency to indiscriminately take over what is abroad.

The data we have presented show that more than 99% of the money spent on criminological (and legal and forensic) research has been spent on nothing or very little and less than 1% on major discoveries, although the scientific and practical use is just the opposite. This great weakness is found everywhere in the world, but in the Republic of Moldova it is much greater. We doubt that it will be possible to eliminate it otherwise than by stipulating in the law that not only things, but also thoughts are property and that no one but the author is allowed to own them (alienation for the sake of it). There is, of course, no need for this in communist societies. Another strong factor is the lack of a sufficiently good measure of the work done. This is the reason for many shortcomings in all trades.

The criminological discoveries made during this period are of all kinds, i.e. methodological, fundamental and applicative or, on another level, theoretical and empirical.

These include the development of a general theory of scientific and criminological knowledge, the discovery of a new method of scientific and criminological research, the discovery of methods for verifying scientific and criminological discoveries, the development of some general theories of crime and criminality, both its essence and its cause, the development of a general theory of criminological prediction and the discovery of two methods of criminological prediction of criminality, the determination and definition of methods of criminological prediction of individual criminal behaviour, the discovery of methods of measuring the effectiveness of crime prevention work, and the discovery of methods and techniques of crime prevention, as well as the methods of their application in the prevention of individual criminal behaviour of the elderly and children.

These criminological discoveries were contained in the following works: Bejan Octavian, *Realizarea cercetărilor criminologice teoretice*, Chişinău, 2009, 158 p.; Bejan Octavian, *Îndrumar de cercetare criminologică pentru doctoranzi*, Chişinău, 2020, 197 p.; Bejan Octavian, *O metodologie de măsurare a descoperirilor criminologice*, Jurnalul juridic naţional: teorie şi practică, anul 2018, nr. 3 (31), p. 23-32; Бужор Валерий, *О сущности преступности*, Editura „Lyceum”, Chişinău, 1996; Bejan Octavian, *Explicaţie criminologică a comportamentului criminal*, Chişinău, 2009, 136 p.; Bejan Octavian şi Bujor Valeriu, *Interes şi crimă*, Chişinău, 2004, 192 p.; Bejan Octavian, *Prezicerea criminologică prin metoda extrapolării*, Chişinău, 2018, 158 p.; Bejan Octavian, *Prevenirea criminalităţii şi a purtărilor criminale*, Chişinău, 2019, 154 p.; Bejan Octavian, *Metoda corelării unicaracteriale de prognozare criminologică*, Legea şi viaţa, anul 2012, nr. 11, p. 11-12; Bejan Octavian, *Metoda construcţiei abstracte de prognozare criminologică*, Legea şi viaţa, nr. 9 (septembrie), 2012, p. 9-12; Bejan Octavian, *Metode de evaluare a activităţii anticrimă. Recomandări metodologice*, Chişinău, 2014, 48 p. Some of these findings have been made before, but we have shown the works that talk about them by their titles or their authors. Some of these

scientific discoveries have significance for the whole of science, and others for a number of branches of science.

Let's talk about **criminological education** in the Republic of Moldova.

Criminological education in the Republic of Moldova has not yet reached the highest peak in the world, as has scientific research.

The greatest achievement is the establishment of the speciality "Criminology and Criminal Sciences" in higher education. This has been the goal for almost twenty years. In our opinion, the particular beginning was made with the scientific communication *Criminology: a perspective speciality for internal affairs bodies*, which was presented by young criminologists Octavian Bejan, Valeriu Turcan and Igor Ursan at an international scientific meeting held at the end of 2002. The end came in 2018, the year in which the Government took the decision to include this specialty in the nomenclature of professional training fields and specialties. Carried out the work done by many criminologists Octavian Bejan and Valeriu Bujor. With this achievement, the Republic of Moldova has climbed to the second level in the world. As we can see, it is a legal-criminological specialty. On the highest level are countries, very few in number, which have fully criminological university specialties (United States, Canada and Great Britain). However, this legal-criminological speciality is appropriate for the Republic of Moldova, given the scarcity of criminological functions in law enforcement bodies, private businesses and non-governmental organisations.

It must be said that for a short time, starting in 1998, there was a criminological specialization at the master's level (postgraduate specialized master's education), conducted by the Police Academy "Stefan cel Mare".

The second biggest achievement in the field of criminological education is the establishment of criminological educational institutions. The beginning was in 1995, with the establishment of the College of Criminology, followed by the University of Criminology in 1998 (both destroyed in 2003 by the governors), the Institute of Criminology in 2010. In order to understand things better, we will point out that all these educational establishments were private or non governmental, so none of them was state-owned.

The third largest achievement in criminological education is, in our opinion, the writing and printing of criminology textbooks. The first one was *Elemente de criminologie* (Editura „Știința”, Chișinău, 1997), written by criminologists Valeriu Bujor, Octavian Bejan, Sergiu Ilie și Sergiu Casian. It is a manual of general criminology. A series of other general criminology textbooks for higher education followed. Only the book *Curs elementar de criminologie* (Valeriu Bujor, Octavian Bejan) it is original, the others are syntheses of the criminological knowledge acquired by other scientific researchers, some of them with a lot of plagiarism. Here are some of the books on special criminology: Octavian Bejan, Valeriu Bujor, *Caracterizare criminologică a unor tipuri de criminalitate* (Chișinău, 2013, 71 p., 15 types of criminality); *Crîmpeie de criminologie specială* (Octavian Bejan, authors or co-authors of some chapters are Valeriu Bujor și Gheorghe Botnaru, Chișinău, Chișinău, 2020, 95 p., descrie 15 types of criminality); *Crîmpeie de criminologie specială* (Octavian Bejan, authors or co-authors of some chapters are Valeriu Bujor și Gheorghe Botnaru, Chișinău, Chișinău, 2023, 104 p., 18 types of criminality); *Elemente de teoria securității criminologice private (material didactic)* (Octavian Bejan, Valeriu Bujor, Chișinău, 2014, 98 p.); *Bazele asigurării securității criminologice private* (Octavian Bejan și Valeriu Bujor, Chișinău, 2016, 210 p.); *Elemente de prevenire a criminalității și a crimelor* (Octavian Bejan,

Valeriu Bujor, Chişinău, 2021, 133 p.). Some criminological teaching books have dealt with the theory and methodology of criminological research and analysis: *Bazele statisticii criminologice*, (Valeriu Bujor, Editura „Literatura juridică”, Chişinău, 1996); *Statistica criminologică. Manual pentru şcoală superioară* (Bujor Valeriu, Ocraiu Ion şi Cipovenco Stela, Chişinău, 2003); *Bazele analizei statistice a criminalităţii*, (Bujor Valeriu şi Miron-Popa Cătălina, Bălţi, 2010); *Elemente de statistică criminologică* (Valeriu Bujor, Octavian Bejan, Chişinău, 2014, 104 p.); *Ghid de cercetare criminologică pentru studenţi* (Octavian Bejan, Valeriu Bujor, Chişinău, 2016, 45 p.); *Îndrumar de cercetare criminologică pentru doctoranzi* (Octavian Bejan, Chişinău, 2020, 197 p.). Most of these were written within the walls of the Institute of Criminology.

We would also like to mention two criminology dictionaries that have seen the light of print in the Republic of Moldova: Octavian Bejan, *Dicţionar de criminologie*, Chişinău, 2009, 107 p.; Octavian Bejan, *Dicţionar de criminologie*, ediţia a II-a, adăugită şi înnoită, Chişinău, 2021, 329 p., containing 435 criminological terms. We will not talk about two other criminology dictionaries printed in the Republic of Moldova, as they are plagiarized works. However, we will mention two other dictionaries, namely: *Mic dicţionar criminologic român-francez* (Octavian Bejan, Chişinău, 2021, 104 p.), which contains over 1700 terms and over 5000 expressions with criminological meaning, and *Mic dicţionar criminologic român-englez-francez-rus* (Octavian Bejan, Chişinău, 2021, 78 p.), which contains over 800 terms and over 2000 expressions with criminological use.

Unfortunately, **criminological practice** has been steadily weakening since the transition from communist to capitalist order, or perhaps after the break with Russia.

In conclusion, we will say, not without shame, that we do not know much about Polish criminology. We know, from Russian criminological works, only that Polish criminology was among the pioneers of criminological prediction in the world. It is rather the lack of translations of scientific works. In our opinion, the Moldovan governors should take over this task, as private publishers do not earn money from such work. Poland's governors should also give money for the translation of Polish scientific works into as many languages of the world as possible, those which are spoken by tens of millions of people or belong to friendly countries. However, today's scientific meeting is a good opportunity for us to learn more. But it is very important that the collection of scientific papers will be published and spread either on the Internet or in the National Library of the Republic of Moldova.

Poetry and Death: A Requiem for Lost Meaning in the Shadow of Totalitarianism

Kristýna Zákostelnová,

PhD. Student, University of Hradec Králové, Czech Republic

Jan Bolehovský

PhD. Student, University of Hradec Králové, Czech Republic

Abstract

The themes of death and spiritual desolation in the dissident poetry of the 1970s are essential to understanding the intellectual climate of the era. This study connects the works of Jiří Kuběna, Zbyněk Hejda, and Petr Kabeš with Jan Patočka's concept of the "solidarity of the shaken." At the same time, it draws a parallel to Czech fin-de-siècle decadent literature – especially the aesthetics of egotism, revolt, and disgust as cultivated by the journal *Moderní revue*. In both periods, poetry functions as a metaphysical space where confrontation with mortality becomes an existential gesture of resistance: against bourgeois conformity at the turn of the century, and against the regime's nihilism under late socialism.

Keywords: dissident poetry, totalitarianism, solidarity of the shaken, Jan Patočka, decadence, the Modern Revue

Preface, Theoretical and Methodological Framework

The starting point of this paper is the conviction that poetry – especially under conditions of cultural and spiritual repression⁹ – serves not merely as an aesthetic artifact or historical document, but as a distinct philosophical mode of testimony. In order to fully grasp the role of poetry during the Normalization period, particularly in relation to spiritual resistance, it is essential to ground our reading within a broader philosophical framework. This framework is provided by phenomenological and existential philosophy, as articulated in the Central European intellectual tradition most notably by the philosopher Jan Patočka.

Patočka's thought, which connects the Socratic ethos with modern phenomenology, offers key concepts and motifs through which poetry can be understood as a space of resistance and spiritual truth. His concept of the "solidarity of the shaken" represents not only an ethical-political appeal, but also a fundamental anthropological diagnosis of the age – an age in which the subject awakens to truth through shaking (or shock): an existential rupture in which conventional certainties collapse, giving rise to an awareness of finitude. At the same time, it is necessary to take into account the central role of death and finitude, which for Patočka – similarly to Heidegger – form the core of human existence. It is precisely through the awareness of finitude that the human being becomes a being capable of truth. Poetry that thematizes death, emptiness, or spiritual crisis does not function merely as an aesthetic form, but as an articulation of essential questioning. In this sense, poetic expression becomes a method – a way of capturing the inexpressible and thereby disrupting the totalizing discourse of power.

This paper will therefore focus on two key dimensions: first, it will elaborate Patočka's concept of the solidarity of the shaken in both its ethical and existential aspects; second, it will turn to the phenomenological understanding¹⁰ of death and finitude as fundamental categories of human experience. These, in turn, will allow for a renewed perspective not only on the meaning of poetry itself, but also on its role in resisting the spiritual emptiness of the age.

The Context of the 1970s in Czechoslovakia: Normalization, Spiritual Vacuum, Cultural Censorship

The so-called Normalization period in Czechoslovakia after 1968 represents not only an era of political repression and institutional consolidation of power, but also a profound spiritual void that penetrated the cultural and intellectual sphere. Following the suppression of the Prague Spring and the imposition of "brotherly assistance" by Soviet troops, public space was subjected to a new totalitarian logic: language lost its ability to articulate truth, literature was stripped of its autonomy, and aesthetics became a tool of ideological adaptation. This condition, which Jan Patočka¹¹ describes as a spiritual paralysis of society, cannot be understood merely as the absence of freedom of speech, but rather as the loss of a metaphysical vertical – a sense that transcends the horizon of immediate power. Cultural institutions were placed under strict control, dissenting authors were silenced, and a significant portion

⁹ For more on the spiritual and cultural repression during the Normalization period, see for example: BLAŽEK, Petr – PERNES, Jiří – DEVÁTÁ, Markéta (eds.). *Opposition and Resistance to the Communist Regime in Czechoslovakia 1968–1989*. Brno: Centre for the Study of Democracy and Culture, 2005.

¹⁰ For a phenomenological approach to poetry, see also RICOEUR, Paul. *La métaphore vive*. Paris: Seuil, 1975, pp. 291–308. Here, poetry is understood as a linguistic event that disrupts conventional structures of meaning and reveals ontological relations.

¹¹ Jan Patočka (1907–1977) was a Czech phenomenologist and an important philosopher.

of intellectual production was pushed into the realm of samizdat, exile, or internal emigration.¹²

In this space of silence and dissimulation, poetry played a distinctive role. While the official cultural discourse produced empty gestures of loyalty and aesthetic formalism, poetry created outside the censored structures became not only a site of personal expression, but also an act of resistance – silent, coded, yet all the more intense. The spiritual vacuum was not only a trauma but also a challenge: how to speak truthfully when language fails? How to seek meaning in a time that has turned away from any metaphysical questioning? The poetry of the 1970s in Czechoslovakia did not emerge despite these circumstances, but through them. The Normalization regime created conditions in which the word became both a risk and the only means of preserving integrity.¹³

The selection of poets analyzed in this study – Egon Bondy, Ivan Diviš, and Zbyněk Hejda – is by no means accidental. Each of them represents a distinct, yet mutually enriching, trajectory in the struggle for spiritual authenticity and existential truth: Bondy through philosophical underground provocation, Diviš through dramatic spiritual combat and an expressive language of faith, Hejda through meditative introspection and a quietly sacral tone. They articulated the experience of spiritual shock, finitude, and resistance through a language that defied ideological flattening. In this sense, their poetry can be understood as a performative testimony to the possibility of remaining human even in times of unfreedom – through the word that does not resonate with power, but with the truth of being.

The Significance of Poetry as a Means of Resistance and Metaphysical Inquiry

From the very beginnings of modern literature, poetry has functioned not only as an aesthetic form, but also as an ethical and existential instrument. In moments of political oppression, ideological violence, or cultural stagnation, poetry emerges as a voice articulating dissent, defiance, and a spiritual alternative. Particularly in the context of Normalization in Czechoslovakia, poetry became a tool of silent resistance. Poets such as Egon Bondy, Ivan Diviš, and Zbyněk Hejda did not resist directly – their protest was veiled, metaphorical, spiritual.

Bondy's famous assertion "Everything is different!" captures the essence of this resistance: poetry revises official narratives, disrupts the language of power, and creates new horizons of meaning. Through imagery, linguistic fragmentation, and irony, it constructs a space of autonomy – a kind of poetic polis, where the subject finds freedom, even if only in words.¹⁴ Yet poetry is not merely protest. It is also a space of searching – for meaning, for transcendence, or for a higher order. In this sense, poetry is an expression of metaphysical striving – often paradoxical, negative, or ironic. The poet is the one who asks, not the one who answers. In the works of

¹² The culture of the Normalization era was systematically structured according to the model of official – semi-official – and unofficial (prohibited) spheres. See KOUBA, Karel. *Kultura v období normalizace*. Prague: Academia, 2008, pp. 42–56. This tripartite model could only be sustained at the cost of systematic self-censorship and the existence of the so-called grey zone of culture.

¹³ Philosopher Jan Sokol summarizes the role of dissent as follows: "We did not accept the dictates of power – but neither the dictates of lies." See: SOKOL, Jan. *Etika, život, instituce*. Prague: Filosofie, 2009, p. 219. This stance also expresses the fundamental ethos of Normalization-era poetry.

¹⁴ BONDY, Egon. *Všechno je jinak*. Samizdat: Pražská imaginace, 1982, pp. 5–6.

Otokar Březina,¹⁵ Vladimír Holan,¹⁶ and the late Bohuslav Reynek – or in the mystical passages of Ivan Diviš – poetry approaches prayer, ritual, or contemplation. In *A Night with Hamlet*, Holan does not offer ontological certainty, but confronts the subject with the mystery of being: “*Já vím, že vím málo, ale to málo, co vím, vím jistě.*”¹⁷ Here, poetry is not ornament but a method of spiritual reflection.

A key characteristic of poetry as both a vehicle of resistance and metaphysical inquiry is its ambivalence. Poetry is never purely revolutionary nor merely contemplative. Under totalitarianism, it may hide in cryptic language – and in doing so, paradoxically reveals the truth. In the postmodern and post-totalitarian context of the 20th century, poetry acquires a new relevance – not as a tool of mass communication, but as an intimate refuge of meaning. This function is particularly evident in the work of Zbyněk Hejda, who fuses everyday reality with metaphysical unease. In his poem *Nearness of Death*, the awareness of bodily finitude becomes a gateway to spiritual transcendence: “*Až odejdu, zůstane tu / tvé mlčení. A v něm / všechno, co nelze vyslovit.*”¹⁸

Poetry thus remains a distinct space in which both spiritual reflection and resistance to spiritual and political leveling can unfold. Precisely because it resists the instrumental demands of communication, it allows the articulation of experiences that cannot be expressed in any other language. Where the language of power demands clarity, poetry chooses ambiguity; where the language of official culture is banal, poetry seeks depth. In this oscillation between intimacy and defiance lies its unique significance.

How Does Dissident Poetry Respond to Death, Emptiness, and Existential Anxiety?

Dissident poetry written outside official literary institutions during the Normalization period carried not only a political, but also a profoundly existential dimension. In confrontation with totalitarian power and cultural leveling, the poetic subject turns to the reflection of liminal states of human existence – death, emptiness, and anxiety. This poetry is not merely a testimony of its time, but also evidence of the ontological tension carried within the human being in the face of unfreedom and the loss of meaning. In the works of Ivan Diviš, death is a constant presence, inseparable from consciousness. In his collection *Thanathea*, he conceives of death as a reality that demands an inner dialogue. The poem is not a form of consolation, but a direct gaze into the abyss: “*Smrt stojí za mnou. / Dýchá mi na záda. / Ale já / ještě píšu.*”¹⁹ Here, poetry takes on an almost liturgical function – words become a means of grasping the end and resisting it.

Dissident poetry often thematizes emptiness not only as a state of the soul, but also as a consequence of ideological devastation. In Zbyněk Hejda's work, emptiness

¹⁵ Otokar Březina (1868–1929) was a key figure in Czech symbolist and spiritual poetry at the turn of the 19th and 20th centuries. His work transcends the boundaries of contemporary decadence and represents an extraordinary attempt at poetic metaphysics. In his verse, he strove to bridge the gulf between the individual and the cosmos, to discover a higher spiritual unity through pain, death, and suffering. See also: CHVATÍK, Ivan. *Poetry as Philosophical Language: Březina and Patočka*. In: *Filosofický časopis*, 1998, no. 3.

¹⁶ Vladimír Holan (1905–1980) was one of the most original and profoundly existential Czech poets of the 20th century. His poetry oscillates between metaphysical meditation, spiritual exaltation, and the tragic gesture of resignation.

¹⁷ HOLAN, Vladimír. *Noc s Hamletem*. Prague: Státní nakladatelství krásné literatury a umění, 1964, p. 28.

¹⁸ HEJDA, Zbyněk. *Blízkosti smrti*. Prague: Revolver Revue, 1992, p. 38.

¹⁹ DIVIŠ, Ivan. *Thanathea*. Prague: Orpheus, 2004, p. 26.

becomes the very structure of the world – not only meaning is lacking, but even the language to express it. In the poem Epiphany, he writes: *“Říkám slovo / a hned je duté. / Mluví, a neříkám nic.”*²⁰ This linguistic disillusionment is also an ethical challenge: how to write truthfully in a time when language has been devalued? Anxiety in dissident poetry is not merely a psychological condition, but also a symptom of lost spiritual orientation. In Egon Bondy's poem Thirsty Hearts, anxiety manifests as the breakdown of concepts, time, and the body: *“Jak dlouho ještě / se budu znovu rodit? / Jak dlouho ještě / se budu bát?”*²¹ Poetry here is not mere therapy, but an attempt to create an ontological map in a situation where no firm ground exists.

Dissident poetry that engages with death, emptiness, and existential anxiety does not emerge as defeatist, but as searching. Precisely by not avoiding these limit experiences, it achieves a deeper truthfulness. In the absence of freedom, it finds space for metaphysical questions. And in the darkest places of human experience, it renews the value of the word – a value not given by the language of power, but by the language of inner conscience.

In What Ways Can We Observe an Analogy Between the Poetry of the 1970s and the Decadence of the Fin de Siècle?

The poetry of the 1970s in the Czech cultural context emerged under conditions of cultural restriction during the Normalization era, when official literary production was subordinated to ideological control and literature outside the sanctioned mainstream was relegated to samizdat or exile. At the same time, a so-called "grey zone poetry" began to take shape—characterized by inner exile, poetic density, and existential skepticism.²² In contrast, the fin de siècle decadence at the end of the 19th century presented itself as an aesthetic movement responding to a crisis of values, increasing materialism, and the ennui of civilization. In its expressive means, decadence turned to symbolism, introspection, and the aestheticization of decay.²³

One of the key analogies between these two poetics is the emphasis on introspection and on themes of decline, ruin, and subjective melancholy. In the poem Late Years, Karel Hlaváček creates an image of escape into dream and death as an antithesis to reality: *“A časem usnem, v noc něžný a planou, / a květ náš zvadlý složíme v klín.”*²⁴ A similar motif appears, for example, in the poetry work of Ivan Wernisch called Zimohrádek, where reality takes on a grotesque shape and the subject dissolves in language: *“Zima padá ze stropu, / pes mluví latinsky. / Nám nezbyvá, / než zemřít v pravopise.”*²⁵ Both approaches are united by a sense of disconnection from reality and a search for expressive parallels in dreamlike or disintegrated forms of existence. Both decadence and the poetry of the 1970s thematize alienation, the breakdown of values, and the isolation of the lyrical subject. Both display formal sophistication and a drive to disrupt the normative discourse of language. In both, we find linguistic play, intertextuality, multilayered metaphors, and irony toward conventions.

²⁰ HEJDA, Zbyněk. *Básně*. Prague: Triáda, 2013, p. 181.

²¹ BONDY, Egon. *Básnické dílo sv. 9 (básnické sbírky z let 1977–1987)*. Prague: Pražská imaginace, 1993, p. 92.

²² KRÁL, Petr. *La poésie tchèque moderne*. Paris: Belin, 2000, pp. 112–113.

²³ KRÁL, Petr. *La poésie tchèque en fin de siècle*. Amay: Maisons de la poésie de Namur et d'Amay, 1999, pp. 16–18.

²⁴ HLAVÁČEK, Karel. *Pozdní léta*. Moderní revue. 1897, 4 (5), p. 30.

²⁵ WERNISCH, Ivan. *Zimohrádek*. Brno: Petrov, 2004, p. 42.

Egon Bondy, in his *Poems from a Thimble*, uses language as a weapon against the emptiness of ideological discourse: "*Všechny prázdný dny / naplníme významem / třeba klamem.*"²⁶ Similarly, Jiří Karásek ze Lvovic aestheticizes linguistic absurdity, for instance in his cycle *Walled-Up Windows*,²⁷ where expression relies on rhythmic stylization and ceremonial symbolism. The stylized language becomes an expression of personal myth and a form of escape from social pretense. Both poetries are marked by a rejection of social norms. The decadent author places themselves outside the bourgeois world and civilizational progress, while the poetry of the 1970s resists the ideological dictates of the regime. In both cases, this is a passive form of resistance, usually of an aesthetic or existential nature. This inner emigration is reflected not only in expression but also in modes of dissemination: samizdat, handwritten copies, or banned editions. In his late works, Vladimír Holan accentuates the isolation of the subject as a form of resistance: "*Mluvím tě jen v srdci. / V tichu, / kde zároveň hučí všechny vody světa.*"²⁸ Similarly, in *Lights in Darkness*, Otokar Březina articulates his stance toward transcendent reality as a resistance to emptiness: "*Duše má, tělo ztrácející, / vznáší se nad troskami časů.*"²⁹ Both decadence and the poetry of the 1970s are characterized by an inverted aesthetic: beauty is not sought in harmony, but in disharmony, destruction, irony, or paradox. The figure of the poet emerges as prophet, visionary, or ironic commentator. In Ivan Diviš's collection *Sursum*, this posture is especially evident, as ironic images of mortality contrast with the monumental tone of his language: "*Kosti jsou bílý mřížoví / kterým se dívám ven z těla.*"³⁰ A similar decadent sensibility can be found in the works of Arnošt Procházka and Josef Svatopluk Machar, who employed irony, sarcasm, and misfortune as aesthetic subjects. Another parallel also becomes apparent: the rejection of historical optimism. Whereas early 20th-century modernist poetry often retained faith in progress and rationality, both decadence and the poetry of the 1970s emphasize the end of historical illusion and the crisis of value as their fundamental poetic premise. The analogies between the poetry of the 1970s and fin de siècle decadence are not coincidental; they arise from similar states of societal and spiritual crisis. Both currents turn inward, toward introspection, aesthetic renderings of escape, and a critique of reality through a language that defies convention. Poetry thus becomes a space of existential authenticity, reflecting deeper questions of human identity, meaning, and freedom. In this light, both decadence and the poetry of the Normalization era can be understood not as aesthetic escapism, but as a profoundly ethical form of resistance.

How Patočka's Philosophy Enables a New Understanding of Poetry as a Form of Resistance

Patočka's philosophy – particularly his concept of the "solidarity of the shaken" – makes it possible to understand poetry not merely as an aesthetic form or existential expression, but as a specific form of spiritual resistance that arises from the awareness of finitude, existential shock, and the crisis of historicity. "*The solidarity of the shaken, who have come to know that only through the awareness of finitude can one arrive at truth.*"³¹ In Patočka's view, poetry – like philosophy – is an

²⁶ BONDY, Egon. *Básně z náprstku*. Samizdat: Pražská imaginace, 1987, p. 35.

²⁷ KARÁSEK ZE LVOVIC, Jiří. *Zazděná okna*. Prague: K. Neumannová, 1912.

²⁸ HOLAN, Vladimír. *Noc s Hamletem*. Prague: Státní nakladatelství krásné literatury a umění, 1964, p. 53.

²⁹ BŘEZINA, Otokar. *Větry od pólů*. Prague: Knihovna Moderní revue, 1897, p. 19.

³⁰ DIVIŠ, Ivan. *Sursum*. České Budějovice: Krajské nakladatelství, 1967, p. 74.

³¹ PATOČKA, Jan. *Péče o duši III*. Prague: Oikúmené 2002, p. 117.

expression of care for the soul – not in a therapeutic sense, but in the Socratic spirit of constant questioning, which has the power to disturb the taken-for-granted and uncover the truth of being. Patočka's distinction between the three movements of existence³² – acceptance, defense, and truth – can also be applied to poetry as an act of resistance. In a totalitarian society that instrumentalizes language and closes the world within rigid ideological frameworks, poetry becomes a gesture of the third movement: the movement of truth. The poet, like the shaken one, passes through the experience of the collapse of ordinary meaning – and in this rupture finds a new form of seeing. The language of poetry is not descriptive, but revelatory: a gesture that resists the banalization of reality.

In this sense, poetry becomes a form of being's dissent against what is. Patočka understands history as an open field of freedom, in which the individual can decide to take a truthful stance – even against the pressure of power. He writes: "History is not predetermined, but open. It is that which depends on human decision."³³ Authentic poetry expresses precisely this possibility: to be free in language where all other language has lost its meaning. This negative freedom – freedom within the emptied space of ideology – is what makes poetry a philosophically relevant form of resistance. Patočka's emphasis on living in truth³⁴ – a concept later adopted by Václav Havel,³⁵ former president of the Czech Republic – resonates not only with the actions of intellectuals and signatories of Charter 77, but also with the poetic gestures of those writers who refused to speak the language of power. Poetry is thus not a manifesto, but a testimony: a quiet, often hidden act in which the subject stands against the automatism of history and restores to existence its shaken-ness. In this perspective, poetry becomes a performative gesture of essential dissent.

Moreover, Patočka's conception of death as a fundamental phenomenon of human existence allows us to view poetry that thematizes death³⁶ and emptiness not as a decadent escape, but as a constitutive dimension of life in truth. Poets like Diviš and Hejda are not nihilists – they are witnesses of being at its limit. It is precisely here that the space opens up for what Patočka calls negative fullness, formulated in the spirit of Socratic irony: silence, stillness, and ambiguity are not deficits, but pathways to deeper truth. Poetry, when read through the Patočkan lens, thus ceases to be a cultural ornament. It becomes a space where the possibility of spiritual life is renewed – despite its ongoing disintegration. In a world where, as Bondy says, "everything is different," poetry is what brings this difference into language – and thereby makes it communicable. In this lies its ethical, metaphysical, and political significance.

³² PATOČKA, Jan. *Kacířské eseje o filosofii dějin*. Prague: Oikúmené, 1990, pp. 35–60.; PATOČKA, Jan. *Tělo, společenství, jazyk, svět*. Prague: Oikúmené 1995, pp. 172–177.

³³ PATOČKA, Jan. *Kacířské eseje o filosofii dějin*. Prague: Oikúmené 1990, p. 76.

³⁴ Living in truth, according to Patočka, is connected with entering into history—not through a heroic gesture, but through existential responsibility. Everyday care for the world can constitute such an entry: a quiet form of historical engagement.

³⁵ HAVEL, Václav. *Moc bezmocných*. Prague: Expedice, 1978, p. 26. Havel directly engages with and builds upon Patočka's philosophy, translating the concept of "living in truth" into the practical context of dissident life.

³⁶ "Death is not the end, but the most authentic challenge to the question of being." See also PATOČKA, Jan. *Péče o duši* / . Prague: Oikúmené, 1996, p. 153.

Patočka's Concept of the "Solidarity of the Shaken"³⁷

Patočka's idea of the solidarity of the shaken, formulated in his later essays—particularly in the context of Charter 77—represents the culmination of his philosophical reflections on history, responsibility, and human existence. This concept is not merely a political gesture but the expression of a profound ontological experience: the experience of shaking, which dislodges the human being from everyday self-evidence and confronts them with finitude, contingency, and the nakedness of being. *"(...) the solidarity of the shaken, those who have come to understand that only the awareness of finitude and historical responsibility makes one truly human, is the only possible foundation for a new spirituality."*³⁸

For Patočka, shaking does not merely mean disruption – it is a radical event of truth, in which one loses all grounding in ideological systems, habits, and social roles.³⁹ In this collapse, one finds a new core of existence – not as an autonomous subject, but as a being in responsibility. The solidarity of the shaken is therefore not a moral imperative in the sense of a program, but the expression of a shared awareness of finitude, and of the duty it entails: to bear truth, even when it leads not to victory, but to loss, pain, or death. This solidarity is not collective in the usual sense of the word. It is not based on agreement or social convention. It is a community of those who have recognized shaking as a radical questioning of all given meaning – and who remain within it, seeking not comfort, but truth. Poets who created their work outside official institutions during the Normalization period belong to this realm – not through overt political gestures, but through their poetic practice: through language that resists conformist legibility, imagery that disturbs the calm surface of everydayness, and silence that is louder than the words of power.

In a world where language serves ideology, the poetic word becomes a gesture of dissent – not because it proclaims something, but because it refuses to participate. The solidarity of the shaken is present even when unspoken: in the ambiguity of an image, in the silence between verses, in irony that becomes a desperate laugh at the absurdity of history. Poetry created in the shadow of Normalization is thus part of this solidarity – quiet, unpretentious, but radically existential. At the same time, Patočka's concept offers a key to overcoming the reductive view of dissent as mere opposition to a regime. The solidarity of the shaken is not rebellion against something, but a response to the shaking of existence itself. A poet who writes in the midst of spiritual emptiness becomes a witness to truth – not an ideologue, but a being who consciously steps into the risk of being addressed. In the Patočkan horizon, poetry reveals itself as an ontological act:⁴⁰ an act by which a

³⁷ The "solidarity of the shaken" is a key concept formulated by Jan Patočka in the final part of his book *Heretical Essays in the Philosophy of History* (1975). It refers to the community of those who have undergone an existential shaking—a profound crisis of being that disrupts the natural order of life and confronts the human being with finitude, death, responsibility, and truth. Unlike societies founded on power, utilitarianism, or belief in progress, this solidarity is based on the conscious acceptance of the truthful experience of being shaken, and on the moral responsibility that arises from it. For Patočka, this idea carries both spiritual and political dimensions: it is a community of those who can no longer live in lies, as Václav Havel would later paraphrase. In the poetry of dissent, the solidarity of the shaken manifests not only in content, but also in form: through a language that breaks conventions, articulates pain, and seeks truth without manipulation of words. See also Patočka, Jan. *Kacířské eseje o filozofii dějin*. Prague: Oikúmené, 1990.

³⁸ PATOČKA, Jan. *Péče o duši III*. Prague: Oikúmené 2002, p. 117.

³⁹ Patočka defines *shaking* as an experience that *"shakes our certainties, attachments, and conventions"* and enables *"a return to oneself."* See: PATOČKA, Jan. *Kacířské eseje o filozofii dějin*. Prague: Oikúmené, 1990, p. 64.

⁴⁰ The concept of an ontological act may be understood in relation to Patočka's third movement of existence as an event of truth, in which the human being confronts being through exposure to its shaking. Poetry that arises from this experience becomes an act of ontological disclosure—not a description of the world, but its opening within truth. See: PATOČKA, Jan. *Kacířské eseje o filozofii dějin*. Prague: Oikúmené, 1990, p. 81.

human being says yes to truth – even at the cost of uncertainty, incomprehension, or silence.

The Significance of Death and Finitude in Existential Philosophy⁴¹

Death – the most personal, incommunicable, and unavoidable experience – occupies a central place in existential philosophy as the point at which human being reveals itself in its full truth. For both Heidegger and Patočka, death is not understood biologically, but ontologically: as a limit that structures human existence from within, as a horizon in whose light everything else gains its weight, intensity, and urgency. In *Being and Time*,⁴² Heidegger formulates the concept of being-toward-death⁴³ as the structure of authenticity: the human being who accepts death as their own possibility leaves behind the inauthentic “man”⁴⁴ – the world of idle talk, borrowed truths, and anonymous life – and enters into their own existence as a task. In this way, death becomes not an end, but a truthful beginning: only when it is confronted can life be lived in truth. Patočka, who remains in dialogue with Heidegger but also with Masaryk, Socrates, and Comenius, understands death as the most proper moment of human responsibility. For him, death is not merely the limit of life, but the place where its meaning is decided. He asserts that “...human finitude is not a burden, but a necessary condition for becoming responsible.”⁴⁵ In the *Heretical Essays*, he writes that in the movement of truth – that is, in the stance by which the human being turns toward that which transcends them – finitude is accepted as the condition of freedom. Finitude is not a limitation but a prerequisite: precisely because we are not eternal, our life can be responsible, faithful, and truthful.

From this perspective, poetry acquires renewed relevance. The poetic word that does not fear to speak of death, decay, or spiritual emptiness is not decadent – it is authentic. Where ordinary speech falls silent or evades, poetry finds words – not to comfort, but to open. In the work of Ivan Diviš, Egon Bondy, or Zbyněk Hejda, death is not an avoidable catastrophe but a companion with whom one must speak, because only in its awareness can life be truly lived. Finitude in poetry is not a sentimental motif. It is a structure that lends the verse its weight and tone. The awareness that any word may be the last makes the language more intense, more exposed – and in this very exposure, more truthful. In the existential sense, poetry becomes a mirror of finite life: uncertain, yet meaningful; threatened, yet responsible. Patočka’s philosophy, which emphasizes the spiritual struggle for truth amid historical decline, offers a framework⁴⁶ in which poetry can be understood not merely as an aesthetic form, but

⁴¹ Existential philosophy, associated with figures such as Martin Heidegger, Jean-Paul Sartre, and Albert Camus, conceptualizes human existence as being thrown into the world, marked by anxiety, freedom, finitude, and responsibility. In poetry, this philosophical current is reflected not only thematically (e.g., through motifs of death, alienation, or silence), but above all formally: language becomes an instrument of shaking, of disrupting taken-for-granted meaning, and a call toward authentic being. Czech poetry of the second half of the 20th century – particularly in the work of authors such as Holan, Hejda, or Kabeš – often does not articulate existentialism explicitly, but *lives it* as a hidden foundational framework of poetic expression. See: VOKOUN, Jaroslav. *Existencialismus v české literatuře*. Brno: Masarykova univerzita, 2001.

⁴² HEIDEGGER, Martin. *Bytí a čas*. Prague: Oikumené, 1996, pp. 62–72.

⁴³ HEIDEGGER, Martin. *Sein und Zeit*. Tübingen: Niemeyer 1927, pp. 46–53.

⁴⁴ Heidegger states that Dasein which lives “inauthentically” in anonymity (das Man) evades the thought of death. Only the readiness for death as one’s own possibility renders existence authentic.

⁴⁵ PATOČKA, Jan. *Péče o duši I*. Prague: Oikúmené, 1996, pp. 160–161.

⁴⁶ Patočka’s late philosophy represents a profound attempt to formulate a concept of spiritual historicity that does not stem from faith in progress, but from the awareness of crisis, death, and existential shaking. Within this framework, poetry can be understood as an *ethical event* – not merely as an artistic expression, but as a way of being in the world truthfully.

as an ethical event. Where philosophy remains a concept, poetry enters as experience. The poet who touches upon death does not philosophize – they bear witness. And it is in this testimony – quiet and often barely audible – that the possibility of another way of being is born: a life aware of its finitude, and yet choosing truth.

Poetics as a Form of Metaphysical Expression (Literary Hermeneutics, Phenomenology)

Poetics – as the set of formal and meaning-generating principles of poetic language – does not constitute merely the aesthetic component of a literary work; it can also be understood as a mode of metaphysical expression. This chapter draws primarily on literary hermeneutics and phenomenological philosophy, which enable us to read the poetic text as an event of meaning – one that transcends linguistic immanence and opens a path toward questions of being, meaning, and transcendence.

From the perspective of literary hermeneutics (Gadamer, Ricoeur), the poetic text is a dialogical field in which the horizons of author, text, and reader intersect. Gadamer's concept of the "fusion of horizons" allows poetry to be understood as a space where personal experience, historical situatedness, and ontological openness converge into a unique event of understanding.⁴⁷

Poetry is thus not a mere act of communication, but a way for the subject to understand themselves within the world. In this light, the poetic image may be viewed as an expression of truth – a truth that is not objective but lived and shared. The metaphysical dimension of poetry is born precisely from this tension between individual expression and the universal meaning co-constituted by the reader. Paul Ricoeur further develops this interpretive function of poetry through the concept of the living metaphor, which opens new possibilities of meaning by disrupting ordinary semantic logic.⁴⁸ Poetic language thus ceases to be merely aesthetic stylization; it becomes a process of ontological disclosure. The metaphor is not an ornament, but a tool for deeper apprehension of reality. Every act of reading poetry becomes a hermeneutical gesture, in which meaning is established anew and differently.

Hermeneutic theory also emphasizes the temporality and historical situatedness of all reading. Understanding a poetic text is never final but variable, depending on the reader's subjectivity and the cultural context. This openness of meaning transforms poetry into not only an aesthetic artifact, but also an ethical and ontological space where a person may encounter both themselves and that which transcends them.

Phenomenology approaches literature not as a representation of reality, but as a revelation of the structures of experience. In the work of phenomenologist Martin Heidegger, for example, poetry becomes a privileged site where language speaks being.⁴⁹ Poetic language here is not an instrument, but the very means by which being is brought into words. Poetry is not a statement about the world, but that through which the world is uncovered. In this view, the poet is not a producer of aesthetic artifacts but a witness to the hidden order of things. The so-called essential metaphor becomes the fundamental instrument that allows for naming what would otherwise be

⁴⁷ GADAMER, Hans-Georg. *Pravda a metoda*. Prague: Triáda, 2010, pp. 314–315.

⁴⁸ RICOEUR, Paul. *La métaphore vive*. Paris: Éditions du Seuil, 1975, pp. 87–128.

⁴⁹ For more on this topic, see: HEIDEGGER, Martin. *Myslet veršem*. Prague: Dybbuk, 2024.

inexpressible by language: death, emptiness, silence, transcendence. By combining hermeneutic and phenomenological approaches, poetics can be understood as a unique form of metaphysical inquiry. The poetic text does not answer metaphysical questions but enables them to be asked with an urgency that exceeds ordinary communication. In the poetry of Zbyněk Hejda, Vladimír Holan, or Otokar Březina, the questioning of meaning, being, and the absolute is not stated explicitly⁵⁰ – it is embodied in the rhythm of language, in imagery, and in metaphorical engagement with the world.

Poetics, understood in this way, is inseparable from the existence of the subject itself: it is a mode of being-in-the-world through the word. Expression becomes both testimony and event – an unveiling of truth that is never complete, yet all the more pressing because of it. Poetics as a form of metaphysical expression reveals poetry as a medium that enables existential reflection on the world. Phenomenological sensitivity to lived experience and hermeneutic awareness of the situatedness of meaning create a framework in which poetry ceases to be ornament and becomes an event of meaning. In a world marked by destabilized values, ideological distortions, and spiritual emptiness, poetry preserves the very possibility of truthful speech.

Moderní revue, the Aesthetics of Defiance, and Egotism

The decadent current in late 19th-century Czech literature emerged as an expression of cultural, spiritual, and moral opposition to the prevailing norms of bourgeois society. The journal *Moderní revue*, founded in 1894 by Arnošt Procházka and Jiří Karásek ze Lvovic, became the principal platform for this expression. The decadent aesthetic, as formulated and practiced by this circle, was not merely a stylistic preference but a comprehensive philosophy of art as a form of defiance – against banality, conformity, and reality itself.⁵¹

The aesthetic of decadence articulated by the *Moderní revue* circle is a concentrated expression of individual freedom in opposition to a moralizing society and its conventions. Its foundation lies in the turn away from ideals of collective good toward the autonomy of the aesthetic subject, who perceives art as the highest form of existence. In this view, the decadent aesthetic becomes the instrument of a rebellious spirit that refuses to submit to the rules of productivity, ethical utilitarianism, or social acceptability.⁵²

The decadents averted their gaze from the realist and social themes of their time and turned inward – toward the subjective world of dreams, memory, eroticism, faith, and death. Yet this subjectivism is not banal introspection; it is the expression of a profound spiritual dissent from the state of the world. Egotism here is not mere posturing, but a strategy of spiritual self-preservation: the poet constructs a private aesthetic universe as an alternative to the decay of civilization. As Arnošt Procházka writes in one of *Moderní revue*'s programmatic texts: *"We wish to be exclusive, for the world is coarse. We wish to be artists, for reality is repugnant."*⁵³

⁵⁰ For further reading, see: KRÁL, Petr. *Anthologie de la poésie tchèque contemporaine*. Paris: Gallimard, 2002.

⁵¹ PROCHÁZKA, Arnošt. *Program Moderní revue*. In: *Moderní revue*. 1894, 1 (1), p. 6.

⁵² For more on this topic, see: URBAN, Otto M. *V barvách chorobných – Idea dekadence a umění v českých zemích 1880–1914*. Prague: Arbor vitae – Obecní dům, 2006.

⁵³ PROCHÁZKA, Arnošt. *České kritiky*. Praha: Knihovna Moderní revue, 1912, p. 18.

The revolt of decadence unfolds both thematically and formally—in the rejection of realism, in the cultivation of refined language, in the aestheticization of suffering, in the exaltation of imagery, and in a melancholia that refuses to be cured. In *Late Dream*, Karel Hlaváček constructs a landscape of decay as a space of beauty: *"Padá sníh, / tiše zní slova naděje / ve které nikdo nevěří..."*⁵⁴ Such beauty is not decorative, but a challenge to a world that has lost its spiritual verticality. This aesthetic rebellion also takes on ritual and religious dimensions – not only in its treatment of mysticism, but in the very act of writing, understood as a performance of inner purification. In contrast to the bourgeois ethic of order, family, and labor, the decadent author erects an ascetic art of style, silence, and sensory intensity. Style becomes not only an aesthetic category, but an ethical gesture: to write beautifully is to live otherwise.

At the heart of this aesthetic lies a subjective absolutism: the poet becomes the center of the world, whose only authority is their own feeling, vision, and will to form. In this posture, the decadents reject any extra-literary responsibility or morality – the aesthetic gesture itself is the sole legitimization of the artistic act. This radical egotism is not exhibitionism, but a metaphysical stance, in which the subject stands against social entropy and the moral collapse of the age. In the works of Karásek ze Lvovic, Procházka, Hlaváček, or Machar, we repeatedly encounter the emphasis on "art for art's sake", introspective self-examination, and imagery oscillating between ecstasy and ruin. For example, Karásek writes in his novel *Gothic Soul*: *"I do not want to be different, I do not want to be better – I want to be free in the beauty of my misery."*⁵⁵ Thus, the aesthetic of decadence becomes not only an artistic movement but also a stance toward life: melancholy, decay, pain, and eroticism are not denied, but aestheticized. This stance represents an autonomous protest against the leveling tendencies of society, which prioritize utility, order, and productivity. For the decadents, beauty is subversion.

Decadent poetry is marked by a high degree of stylization, metaphorical density, and emphasis on euphony and rhythm. Its motifs revolve around death, decline, solitude, mysticism, dreams, bodily aesthetics, and revolt. These elements create a kind of cult of aesthetic exclusivity, accessible only to those willing to renounce the comforts of conventional existence. This elitist quality is, however, an integral part of decadent defiance: contempt for the "external" is simultaneously a statement about the deep crisis of inner order. Here, aesthetics becomes a form of spiritual diagnosis: the modern human being has lost certainty, but has found form. The decadent aesthetic, as shaped by the *Moderní revue* circle, is an aesthetic revolt whose primary weapons are beauty, irony, and style. In an era dominated by realism and didactic tendencies in literature, decadence represents a return to art as mystery and contemplation. Its cultural significance lies not only in its original artistic output, but above all in its uncompromising insistence on the freedom of the creative subject – even at the cost of self-destruction.

Poetry as a Space of Resistance and Shaking, and Parallels with Decadent Literature

From the beginnings of the modern era, poetry has been not only an aesthetic expression but also a space in which deep anthropological and existential questions

⁵⁴ HLAVÁČEK, Karel. *Pozdě k ránu*. Praha: Knihovna Moderní revue, 1896, p. 10.

⁵⁵ KARÁSEK ZE LVOVIC, Jiří. *Gotická duše*. Praha: Knihovna Moderní revue, 1900, p. 44.

are articulated. In times of historical crisis – during war, under dictatorship, or in periods of spiritual or civilizational emptiness – poetry becomes a site of resistance. This resistance is not always direct or manifest; more often, it is silent, encoded, and spiritual.⁵⁶ Such was the case during the Normalization period in Czechoslovakia, when dissident poetry became one of the few languages capable of preserving a metaphysical dissent from the state of society. This dissent was not always associated with a political program – it was a fundamental gesture of human freedom, a quiet no to the nihilism of the late socialist regime. In this context, an intriguing comparison arises with the decadent poetry of the late 19th century, which also emerged in an atmosphere of cultural crisis, disillusionment with modernity, and the disintegration of traditional value frameworks. Although these were very different historical contexts, in both cases, poetry functioned as a space of shaking – a place where the subject encounters a limit experience and formulates a response to cultural and spiritual collapse. In this sense, we can trace parallels between the poetics of Normalization-era poets such as Egon Bondy, Ivan Diviš, or Zbyněk Hejda, and the decadent authors associated with *Moderní revue*, such as Jiří Karásek ze Lvovic and Arnošt Procházka.

Both currents share an aesthetic stance against the mainstream language of their time: the language of decadence stood in opposition to bourgeois banality and conformity, just as dissident poetry opposed the emptiness of Normalization ideology.⁵⁷ A strong point of connection is also the experience of solitude – the subject turned inward, seeking transcendence in a world whose horizon has been fractured. Jan Patočka thematized this moment as shaking – an experience that leads one to truthful existence precisely through a crisis that cannot be masked by routine or ideological façades. Poetry thus becomes not only a place where shaking is thematized, but where it is enacted. The language of the poem disrupts stable structures of meaning and confronts the reader with death, suffering, absurdity – but also with the possibility of freedom. Although decadence is often associated with escapism, aestheticism, or a cult of beauty, one cannot overlook its deeper philosophical layers. In the works of Czech decadents, we often encounter an existential resistance – albeit stylized and ironic – toward bourgeois society, progress, and a secularized world. Like the later dissident poetry, it turns toward the body, death, and the loss of meaning, yet remains deeply rooted in cultural traditions – from symbolism and mysticism to Catholic spirituality and Nietzschean nihilism.⁵⁸

The aim of this chapter, therefore, is to show how, in Czech poetry from two distinct periods – at the turn of the 19th and 20th centuries and during the Normalization era – a language of resistance was formed that transcends political agitation and enters the existential and metaphysical realm. Here, poetry is not only testimony or a substitute space for freedom (as dissident studies often suggest),⁵⁹ but a structurally specific language of shaking – a space in which the subject encounters finitude and, through it, articulates the possibility of a different, more truthful way of being.

Poetry as a Form of Existential Experience and Defiance

⁵⁶ RICOEUR, Paul. *Interpretace a naděje*. Prague: Oikúmené, 2006, pp. 81–92.

⁵⁷ BÍLEK, Petr A. *Prázdný prostor literatury*. Prague: Herrmann & synové, 1992, pp. 30–45.

⁵⁸ ČINÁTL, Kamil. *Nihilismus a dekadence v české moderně*. In: *Dějiny a současnost*, 2015, no. 1.

⁵⁹ For more on this topic, see: DAY, Barbara. *Samizdat, the Alternative Culture in Czechoslovakia 1968–1989*. London: Faber & Faber, 1999.

Poetry – understood not merely as a literary genre but as a specific mode of experiencing the world – represents, in times of spiritual and political crisis, a privileged language of resistance. Its power lies not in overt political declaration, but in its capacity to disrupt conventional structures of meaning, to provoke the experience of shaking, and to open a space for authentic being. In totalitarian or ideologically rigid systems, poetry becomes a place where truth – silent, coded, or ironic – can still be articulated beyond the propaganda-driven language of the regime.⁶⁰ From this perspective, poetry cannot be understood merely as an aesthetic or cultural artifact. It must be grasped as an existential event – an act in which the subject stands face to face with radical otherness: death, suffering, and the loss of meaning. In this confrontation, a specific form of resistance emerges – not through revolutionary gesture, but through the preservation of openness to truth. This form of defiance echoes Jan Patočka's late writings, especially his *Heretical Essays in the Philosophy of History*.⁶¹ Patočka's concept of the "solidarity of the shaken" is not a political program but a community of those who, having experienced the shock of truth, nevertheless remain faithful to it – and poetry can serve as the medium of this experience.⁶²

In the work of Czech poets from the 1970s and 1980s, we find this existential level of resistance expressed with striking clarity. The poems of Jiří Kuběna, Zbyněk Hejda, and Petr Kabeš do not formulate direct protest against the regime, but rather convey feelings of disintegration, spiritual apathy, death, and abandonment – motifs that resonate with the atmosphere of late socialism while also carrying a broader metaphysical significance. Here, poetry becomes a space of sorrow and silence, in which the subject relinquishes the conventions of language and identity and seeks a new mode of being – being in spite of. Zbyněk Hejda thematizes decay, corporeality, and fallenness as experiences of purification: *"We must understand all things as mortal – to the marrow."*⁶³ This is not pessimism, but radical fidelity to reality – a fidelity that refuses illusion. Such fidelity is itself an act of resistance: in the environment of Normalization, where euphemism and ideological kitsch dominate, the poet who writes of death, finitude, and decomposition becomes a political subject – even if their language is not political in the conventional sense. Thus, in both decadent and dissident contexts, poetry reveals itself as a medium for articulating the fundamental experience of shaking: an existential rupture in which stable foundations vanish and the subject confronts finitude and absence. In this condition, the language of poetry becomes a means of preserving the right to meaning. By rejecting normative language – whether bourgeois or state-sponsored – the poet establishes an ethics rooted not in a program, but in fidelity to the truth of experience. This type of poetry does not abandon beauty, but redefines it: here, beauty is not harmony, but the truthful form of pain. Poetry does not soothe – it disturbs. And in that disturbance, it becomes a space of resistance – not as ideological battle, but as the experience of a subject who maintains dignity amid the ruins of the world.⁶⁴

This exclusive subjectivism in *Moderní revue*⁶⁵ at the turn of the 20th century was closely linked to the idea of the artist as an egotistical creator who drew the

⁶⁰ For further reading, see: HAVEL, Václav. *Moc bezmocných*. Prague: Mladá fronta, 1990.

⁶¹ PATOČKA, Jan. *Kacířské eseje o filozofii dějin*. Prague: Oikúmené, 1990, pp. 87–101.

⁶² DODD, James. *Crisis and Reflection: An Essay on Husserl's Crisis of the European Sciences*. Dordrecht: Springer, 2004, pp. 214–220.

⁶³ HEJDA, Zbyněk. *Všechna slova mají své místo*. Ed. Marek Zeman. Brno: Host, 2006, p. 54.

⁶⁴ For more on this topic, see: STEINER, George. *Jazyk a mlčení*. Prague: Triáda, 2001.

⁶⁵ The aesthetic gesture of *Moderní revue* – a journal closely associated with the Czech decadent movement at the turn of the 19th and 20th centuries – represents not only a historical document of a specific cultural epoch, but also a

value of their work from introspective depth, personal integrity, and spiritual autonomy. This egotism was not narcissistic self-glorification, but a conscious defiance of the leveling pressures of society – a form of spiritual resistance against petty-bourgeois convention, utilitarian morality, and the mechanical rationalism of the age. Jiří Karásek ze Lvovic captured this stance powerfully: *“The artist who ruthlessly expresses his individuality is either persecuted or ignored. And yet, in him lies the guarantee of art’s evolution.”*⁶⁶ This statement reflects not only the Nietzschean idea of the creative individual as one ahead of their time, but also the tragic nature of their social position – loneliness, marginalization, and incomprehension. The artist is seen here as the bearer of values yet to come, a prophet of the aesthetics of the future.

Friedrich Nietzsche’s philosophy provided a strong theoretical foundation for these ideas. Conviction, says Nietzsche, is a means for the overman – not a concession. And here lies the essence of egotism: he does not believe because he must, but because he can.⁶⁷ This spiritual heroism becomes the core of the decadent subject – drawing on the will to create, not on social consensus. This attitude strongly resonates in the poetry of Moderní revue authors – for example, in Bohuslav Knösl’s poem *Twilight of the Soul*. This work is a typical example of the symbolist turn inward, where the ego does not become a triumphant deity, but a dark abyss in which anxiety and solitude are born: *“Po vlnách stišení prchají slábnoucí duchové zvuků / a v duši vládne klid, na jehož dně je skrčena Úzkost. / Sám stojím tu v prázdnotě prostorů, věků. // (...) Juž noci čaloun ztemnělý se níží víc a více / a prázdnotou planinou tmy oceán se šíří / a v hrad můj pustnoucí se nikdo nevrací...”*⁶⁸

The poem evokes existential uprootedness, spiritual barrenness, and solitude – developing themes central to decadent poetics. The emptiness of space and time, the encroaching darkness, the abandoned castle – these are images that symbolize the inner condition of the solitary creator who no longer trusts in any external supports, yet persists in the dignity of their singularity. Understood this way, egotism is not self-centeredness but a tragic and profoundly spiritual stance – a longing for spiritual truth, even at the cost of exclusion. The overman of Moderní revue is not manifested through power of action, but through power of awareness – an awareness of solitude, doubt, and exceptional creativity that stands outside history yet at the core of art.

This deformed transcendence – empty yet formally stylized – forms a kind of prefiguration of later poetry born under spiritual and political pressure. Egon Bondy takes up this line in a radically materialist and provocative form. His poetry of the 1970s – especially the texts published in *samizdat* – addresses not only physical but also social and moral decay: *“Jsem masitá věc / co se táhne stokou / a ve dne i v noci / čte si v Novém zákoně...”*⁶⁹ Bondy’s egotism is deliberately unaesthetic, anti-canonical, yet fully in line with the tradition of the poètes maudits. It is a parody of spiritual grandeur, bearing tragic authenticity: the attempt to seek meaning is already desecrated by the act of articulating it in conditions of total loss.

symptom of a deeper spiritual shift. At the center of this project was the aestheticization of subjective experience, of the exalted “I,” whose decline, mortality, corporeality, and neurosis were elevated to the status of artistic values. This is egotism, not as banal self-centeredness, but as existential maximalism, in which the subject places itself at the center of expression – even at the cost of self-destruction.

⁶⁶ KARÁSEK ZE LVOVIC, Jiří. *Sociální užitečnost v umění*. Moderní revue 2, 1895, p. 27.

⁶⁷ NIETZSCHE, Friedrich. *Antikrist*. In: Moderní revue 8, 1898, p. 151.

⁶⁸ KNÖSL, Bohuslav. *Soumrak duše*. Moderní revue 2, 1895, p. 32.

⁶⁹ BONDY, Egon. *Básně*. Prague: Torst, 2000, p. 38.

Zbyněk Hejda, by contrast, oscillates between matter-of-fact tone and symbolic silence: *"Vidíš, jak pod stěnou tiše hnije / sáček s čajem? / Tak i tobě to jednou / přestane chutnat..."*⁷⁰ His poetry is a quiet, ascetic protest – precisely for that reason, all the more powerful. Ivan Diviš remains closest to the expressive line of symbolist decadence, but without any consoling teleology: *"Tělo se rozpadá, ale duše / nemá kam jít. / Jen věří v rozklad jako v poslední / svátost světa..."*⁷¹

In all these cases, death and decay become artistic subjects – not as morbid fascination, but as a rigorous, unfiltered recognition of the modern (or late modern) human condition. Thus, the poetry of Bondy, Hejda, and Diviš enters into a subconscious dialogue with *Moderní revue*: death here is not merely an end but a method – a way of speaking about what can no longer be said. The word becomes confession, diagnosis – and in that, it continues the aesthetic of egotism, not as something outmoded, but as something that transforms.

Conclusion

The findings of this study show that poetry, in times of crisis, cannot be understood merely as a cultural product or a tool of aesthetic reflection, but as a distinct mode of spiritual existence. In the context of Czechoslovak Normalization, when the language of the public sphere was infected by ideological formalism, poetry became a medium of resistance – articulating the experience of finitude, emptiness, and spiritual shaking. Here, poetic language does not serve as description or ornament, but as act – a performative gesture of testimony, bearing both an ethical claim and existential risk.

In dialogue with the philosophy of Jan Patočka – particularly his concept of the "solidarity of the shaken" – this study has shown that poetry functions as a form of spiritual care, centered not on consolation, but on truth. In this perspective, the poet does not appear as an ideological spokesperson, but as a being who, by inscribing death, suffering, and the loss of meaning into the structure of language, restores the possibility of a spiritual vertical. Poetry is not a reaction to shaking – it is its linguistic realization, an event in which the subject confronts a limit experience and transforms it into an ethical utterance.

Poetry as a site of struggle for meaning in a world that denies it – this is precisely how dissident writing of the 1970s appears as an existentially performative act. In the works of Jiří Kuběna, Zbyněk Hejda, and Petr Kabeš, death is not merely a theme but a structuring principle through which the poetic subject is formed: shaken, searching, and yet refusing to retreat into silence. The link between this body of work and Patočka's notion of the solidarity of the shaken reveals that poetry is not an escape, but a form of unspectacular testimony – and it is in this unspectacular nature that it gains moral weight. The subject who speaks from within spiritual emptiness finds support neither in ideology nor religious certainty – and yet still speaks. This voice is not confident, but all the more urgent: it is a language aware of its fragility, yet refusing to surrender it.

The parallel with the decadent aesthetics of *Moderní revue* is no coincidence – both periods position poetry as an extreme form of expression in times of cultural and spiritual rupture. In both, we find egotism in its deepest sense: an aesthetic and

⁷⁰ HEJDA, Zbyněk. *Blízkosti smrti*. Prague: Torst, 1996, p. 23.

⁷¹ DIVIŠ, Ivan. *Sursum*. Munich: PmD, 1986, p. 52.

ethical effort to endure as a subject – even when subjectivity itself is brought to its limits. Death, decay, and inner collapse are not described to be aestheticized, but to be confronted as challenges to truth: truth without consolation, redemption, or historical horizon.

These parallels between the dissident poetry of the 1970s and 1980s and Czech fin-de-siècle decadence suggest that, despite radically different historical contexts, the aesthetic language can remain subversive. In both cases, it is a stylized form of defiance – not against a specific political entity, but against spiritual trivialization, the entropy of meaning, and the collapse of the metaphysical dimension of life. It is precisely here that the sense of poetry as shaking becomes clear: poetry that rejects euphemism and ideological shorthand becomes a space of truthful speech – its communicability not grounded in accessibility, but in the intensity of the experience it mediates.

As understood in this study, poetry is neither a purely literary form nor merely an illustration of its historical time. It is a radical event of meaning, in which the subject finds the possibility of responsible being even when all official frameworks of meaning have failed. In its fragmentation, irony, silence, and exaltation, poetry preserves what philosophy often loses: the ability to express truth without exhausting it.

This study shows that poetry under totalitarian shadow functions as a modern requiem – not as passive lamentation for the loss of meaning, but as an active, though silent, resistance to its forced silencing. The word, however endangered, becomes the only space where truth can survive – not truth about the world, but about the human being. And that may be the deepest purpose of such poetry: to bear witness to a loss that did not destroy the longing for meaning, but purified it of illusion.

Looking ahead, several directions for future research open up: comparative analysis of dissident poetry in other cultural contexts (e.g., Poland, Hungary, Romania); investigation of the relationship between poetry and metaphysics in light of contemporary phenomenological hermeneutics (e.g., Blanchot, Levinas, Nancy); or interpretation of poetry as a site of cultural memory in a society devoid of memory. In this regard, poetry remains not only a form of testimony but also a mode of questioning – one that preserves space for spiritual experience, even where it seems entirely emptied out.

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The Role of the Mosul University in Preserving the Civilizational Heritage of Nineveh

Dr. Omar Jassam Fathel Alhamo
Mosul University, Iraq

Abstract

The University of Mosul is a leading academic institution that plays a pivotal role in supporting and advancing both the local and national community through its diverse scientific and academic specializations. One of its most notable contributions lies in the preservation of the rich cultural and civilizational heritage that distinguishes Iraq as a whole, and particularly the province of Nineveh. This is achieved through a range of academic and practical initiatives spanning educational, field, consultative, cooperative, social, and administrative dimensions.

Through its qualified human resources and the outputs of its College of Archaeology—which has become a key actor in managing archaeological affairs in the city—the university actively contributes to the rehabilitation and management of damaged archaeological and heritage sites. In addition, it provides technical and consultative support to archaeological departments and excavation missions operating within Nineveh Province.

This study aims to shed light on the multiple roles undertaken by the University of Mosul in safeguarding the cultural and civilizational heritage of Mosul, with particular emphasis on its academic, practical, and consultative functions. It also explores ways to further strengthen these efforts in order to support sustainable development and foster community peace through the protection of local cultural identity.

Keywords: Mosul University, Cultural Heritage, Iraq, Archaeology, Nineveh

**Investigation of the Relationship Between University Students' E-sports Attitudes,
Digital Leisure Flow Experiences and Subjective Vitality**
*Üniversite Öğrencilerinin E-spor Tutumları, Dijital Serbest Zaman Akış Deneyimleri ve
Öznel Zindelikleri Arasındaki İlişkinin İncelenmesi*

Merve Gülcan Güz

Master Student, Erzincan Binali Yıldırım University, Türkiye

Asst. Prof. Dr. Vildan Akbulut

Erzincan Binali Yıldırım University, Türkiye

Abstract

The aim of this research is to examine university students' e-sports attitudes, digital leisure flow experiences and subjective vitality according to some variables and to reveal the relationship between them. The research group consists of 510 university students. In the research "E-Sports Attitudes Scale-ESAS", "Digital Leisure Flow Experiences Scale-DL-FES" ve "Subjective Vitality Scale-SVS" were used as data collection tools. As a statistical method in the analysis of data, descriptive statistics, t-test, ANOVA and correlation tests were used. The students ESAS and sub-dimension score, DL-FES time sub-dimension and subjective vitality scores differed according to gender. ESAS and sub-dimension scores and DL-FES and sub-dimension scores significantly differed according to class level and daily game playing time. ESAS and sub-dimension scores and DL-FES and time sub-dimension scores differed according to the daily internet duration variable. While e-sports participants are high ESAS and DL-FES total and sub-dimension scores and subjective vitality, university students who active sports ESAS and sub-dimension scores, DL-FES and time sub-dimension score and subjective vitality are high. There was a positive and medium level correlation between the ESAS and DL-FES, in contrast to a positive and low level

correlation between the ESAS and SVS. On the other hand, positive and medium level relationship was observed DL-FES and SVS.

Keywords: E-sports attitudes, flow experiences, digital leisure, subjective vitality

Özet

Bu araştırmanın amacı, üniversite öğrencilerinin e-spor tutumları, dijital serbest zaman akış deneyimleri ve öznel zindeliklerini bazı değişkenlere göre incelemek ve değişkenler arasındaki ilişkiyi ortaya koymaktır. Araştırmaya 510 üniversite öğrencisi katılmıştır. Çalışmada veri toplama aracı olarak “E-Spor Tutum Ölçeği-ESTÖ”, “Dijital Serbest Zaman Akış Deneyimi Ölçeği-DSZ-ADÖ” ve “Öznel Zindelik Ölçeği-ÖZÖ” kullanılmıştır. Verilerin analizinde istatistiki yöntem olarak; betimsel istatistikler, t-testi, ANOVA ve korelasyon testleri kullanılmıştır. Cinsiyet değişkenine göre katılımcıların ESTÖ ve alt boyut puanları, DSZ-ADÖ zaman alt boyutu ve öznel zindelik puanlarının farklılaştığı tespit edilmiştir. Sınıf ve günlük oyun oynama süresi değişkenine göre ESTÖ ve alt boyut puanları ile DSZ-ADÖ ve alt boyut puanları anlamlı bir şekilde farklılaşmaktadır. Günlük kullanılan internet süresi değişkenine göre ESTÖ ve alt boyut puanları ile DSZ-ADÖ ve zaman alt boyutu puanları anlamlı bir şekilde farklılık göstermektedir. E-spor yapan katılımcıların ESTÖ ve DSZ-ADÖ toplam ve alt boyut puanları ile öznel zindelikleri daha yüksektir. Aktif spor yapan üniversite öğrencilerinin ESTÖ ve alt boyut puanları, DSZ-ADÖ ve zaman alt boyut puanı ile öznel zindelikleri daha yüksektir. ESTÖ ile DSZ-ADÖ arasında pozitif yönde ve orta düzeyde; ESTÖ ile ÖZÖ arasında pozitif yönde ve düşük düzeyde; DSZ-ADÖ ile ÖZÖ arasında ise pozitif yönde ve orta düzeyde anlamlı bir ilişki olduğu görülmüştür.

Anahtar Kelimeler: E-spor tutumu, akış deneyimi, dijital serbest zaman, öznel zindelik

Tayfun Pirselimoglu's Cinema in the Contrast of National and Modern Allegory
Ulusal Ve Modern Alegori Karşıtlığında Tayfun Pirselimoglu Sineması

Uğur Duman

Master Student, Erciyes University, Türkiye, ORCID NO: 0009-0007-4549-5296

Abstract

In a cinematic narrative, the concept of allegory can be read through different components and analyzed with an interdisciplinary approach. In this study, the concept of 'National allegory' by Fredric Jameson and the concept of 'modern allegory' developed by Paul de Man, Walter Benjamin and Franco Moretti will be analyzed comparatively by considering allegorical narrative in a semiotic framework. The main purpose of the research is to discuss the views of Paul de Man, Walter Benjamin and Franco Moretti, who argue against Jameson's approach that Third World texts necessarily have an allegorical structure and that this structure carries social and political meanings, and to discuss the views of Paul de Man, Walter Benjamin and Franco Moretti, who oppose this necessity and position modern allegory as a method of analysis in understanding individual and social alienation. In line with this discussion, the analysis will focus on how allegorical narration is shaped through themes such as the concept of crime and criminality, the search for justice, resentment, fatalism, traditionalism, dreams, criticism of bureaucracy, social morality, and political criticism, and how the films are positioned against national and modern allegorical readings. By analyzing the superficially apparent meanings of allegorical signs set in the countryside or town, it is important to understand the effect of communication mechanisms through a cinematic actant and to perform a reading. In this context, the films to be discussed are ideal examples for an in-depth examination of this relationship between social impact and cinematic narrative. From this point of view, the universe of this study, in which we aim to understand and discuss how the concept of allegory is handled in the opposition of national and modern allegory from a semiotic perspective, is the cinema of Tayfun Pirselimoglu; the productions of Tayfun Pirselimoglu as a screenwriter/director constitute the sample. The films 'Yol Kenarı' (2017) and 'Kerr' (2021) are the research objects of this study, which will make it possible to discuss the construction and representation under consideration from a relevant perspective.

Keywords: Cinema, Allegory, National and Modern Allegory, Tayfun Pirselimoglu's Cinema

Özet

Sinemasal bir anlatıda, alegori kavramı farklı bileşenler üzerinden okunabilir ve disiplinlerarası bir yaklaşımla analiz edilebilir. Bu çalışmada, alegorik anlatıyı göstergebilimsel bir çerçevede ele alarak, Fredric Jameson'ın "ulusal alegori"

kavramsal ile Paul de Man, Walter Benjamin ve Franco Moretti'nin geliřtirdiđi "modern alegori" anlayıřı karřılařtırmalı olarak incelenecektir. alıřmanın temel amacı, Jameson'ın Üüncü Dünya metinlerinin zorunlu olarak alegorik bir yapıya sahip olduđunu ve bu yapının toplumsal ve siyasi anlamlar tařıdıđını öne süren yaklařımına karřı, Paul de Man, Walter Benjamin ve Franco Moretti'nin bu zorunluluđa karřı ıkarak modern alegoriyi bireysel ve toplumsal yabancılařmayı anlamada bir analiz yöntemi olarak konumlandırın görüşlerini tartıřmaktır. Bu tartıřma dođrultusunda, Tayfun Pirselimolu'nun ele aldıđı suç ve suçlu kavramı, adalet arayıřı, hın, kadercilik, gelenekilik, rüyalar, bürokrasi eleřtirisi, toplumsal ahlak ve siyasi eleřtiri gibi temalar üzerinden alegorik anlatımın nasıl biçimlendirildiđi ve filmlerin ulusal veya modern alegoriye dayalı okumalar karřısında nasıl konumlandırıldıđı analiz edilecektir. Tařra veya kasabada geen alegorik göstergelerin yüzeysel olarak görünen anlamlarını analiz ederek bir sinematik eyleyen üzerinden iletiřim mekanizmalarının etkisini anlamak ve bir okuma gerekleřtirmek önem tařımaktadır. Bu bağlamda, ele alınacak olan filmler, toplumsal etki ve sinemasal anlatı arasındaki bu iliřkiyi derinlemesine incelemek için ideal birer örnektir. Buradan hareketle, alegori kavramının ulusal ve modern alegori karřıtlıđında nasıl ele alındıđını göstergebilimsel bir bakıř aısıyla anlamayı ve tartıřmayı amaçladıđımız bu alıřmanın evrenini Tayfun Pirselimolu sineması; bir senarist/yönetmen olarak Tayfun Pirselimolu'nun üretimleri ise örneklemini oluřturmaktadır. Ele alınan inřayı ve temsili, ilgili bakıřla tartıřmayı mümkün kılacak olan "Yol Kenarı" (2017) ve "Kerr" (2021) filmleri bu alıřmanın arařtırma nesneleri konumundadır.

Anahtar Kelimeler: Sinema, Alegori, Ulusal ve Modern Alegori, Tayfun Pirselimolu

GİRİř

Alegori, farklı disiplinlerce kullanılabilen ve bir anlatının temsil řeklini yüzeysel görünen anlamların ötesine tařıyarak; daha derin, sembolik ve çođu zaman soyut bir mesajı tařıyan yan anlamsal ifade biçimi olarak tanımlanabilir. Alegori, edebiyat ve mitoloji disiplinlerinde epik anlatılar, masallar ve mitlerde sıka kullanılırken, felsefi düşüncede Platon'un "Mađara Alegorisi" gibi metaforlarla hakikat arayıřı bağlamında ele alınır. Tarihsel bağlamda ise ulusların kimlik arayıřı ve ideolojik anlatıları önemli bir yer tutar. Psikoloji ve sosyoloji alanlarında ise Freud ve Jung'un görüşleri, bireysel ve toplumsal bilindışı süreçleri yansıtabilen bir anlatım biçimi olarak karřımıza çıkmaktadır. Alegori kullanımı, disiplinlerarası bir anlatım biçimi olarak sözel bir dil üzerinden sunulabilirken, sinema kültürü ise bu sözel dili edebi gelenekten beslenerek görsel bir dile evirir. Felsefi, tarihsel veya sosyolojik olaylar veya düşünceler, alegorik bir dille ele alınarak gemiři, řimdiyi veya geleceđi yeniden yorumlama imkânı sunabilir. Bu bağlamda, alegorinin sinemasal kullanımı, anlatıyı güçlendiren en etkili araçlardan biri hâline gelir. Sinema, diđer sanat formlarıyla kıyaslandığında, görselliđin yanı sıra zaman-mekân iliřkilerini daha belirgin bir řekilde işleyerek, eřitli temalar ve bileřenler üzerinden alegorik anlatıları daha katmanlı ve ok yönlü hâle getirme potansiyeline sahiptir.

Alegori kavramı, birey ve toplum arasındaki deđiřimleri ve ideolojik yapıları temsil eden işlevsel bir araç olarak deđerlendirilmiřtir. Modern dönemde ele alınan bu kavramsallařtırma, farklı düşünürler tarafından eřitli yaklařımlarla ele alınmıřtır.

Walter Benjamin, alegori kavramını tarihsel melankoli ve zamansallığın birbirine bağlandığı bir yapı olarak incelerken, Paul de Man ise alegoriyi, zaman ve anlamın sürekli ertelendiği metin ve metinlerarasılık düzeylerinde bir yapı olarak ele almıştır. Franco Moretti alegoriyi modern epik, kültürel göstergeler ve toplumsal dönüşümlerin yansıması olarak yeniden ele alıp yorumlayarak, onun modernizmin ve postmodernizmin katmanlı dünyasında bir köprü işlevi gördüğünü ortaya koyar. Fredric Jameson ise, Marksist bir bakış açısıyla alegoriyi bilinçdışı bir hal ile ilişkilendirerek bireysel hikâyelerin aslında toplumsal, siyasal ve tarihsel bağlamların birer yansıması olduğunu savunur.

Modern dönemde bu kavramsallaştırma, farklı düşünürler tarafından çeşitli yaklaşımlarla ele alınmış ve Fredric Jameson'ın "ulusal alegori" kavramsallığı ile Paul de Man, Walter Benjamin ve Franco Moretti'nin geliştirdiği "modern alegori" anlayışının karşılaştırmalı bir şekilde tartışmasını ortaya çıkarmıştır. Fredric Jameson alegorik anlatıyı incelerken Üçüncü Dünya metinlerinin kaçınılmaz olarak alegorik bir yapıya sahip olduğunu ve bu anlatıların toplumsal ve siyasal anlamlar taşıdığını savunur. Buna karşılık, Paul de Man, Walter Benjamin ve Franco Moretti, bu metinlerin alegorik bir yapıya sahip olmak zorunda olmadığını ve modern alegorinin, toplumsal ve bireysel yabancılaşmayı anlamada bir analiz aracı olarak kullanılabileceğini ileri sürmektedir.

Sinema, görsel ve işitsel tabanlı unsurları bir araya getirerek anlamın iletilmesini sağlayan bir sanat formu olarak, Fredric Jameson'ın "ulusal alegori" kavramsallığı ile Paul de Man, Walter Benjamin ve Franco Moretti'nin geliştirdiği "modern alegori" anlayışına dair karşılaştırmalı tartışması göstergebilimsel bir bakış açısıyla ele alınabilir. Gerekçe olarak, sinema çok katmanlı bir anlatı yapısına sahiptir ve burada gizilde kalan anlamlar, yalnızca görsel ve işitsel göstergeler aracılığıyla iletilir. Göstergebilim, bu göstergelerin nasıl anlam kazandığını, nasıl alegorik bir yapı oluşturduğunu ve izleyici tarafından nasıl alımlandığını inceleyen bir yöntem olarak sunulduğundan, bir sinemasal üretimde kullanılması tercih edilebilecek ulusal ve modern alegori karşıtlığını analiz etmek için uygun bir çerçeve sağlar. Bu çerçevede, Barthes'ın göstergebilimsel kodları aracılığıyla imgelerin ve sembollerin anlam süreci analiz edilebilir.

Göstergebilimsel bir bakış açısıyla tartışmayı amaçlayan bu çalışmada, kuramsal çerçeve-yöntem ve araştırma nesnesinin çözümlenmesi bağlamında temel olarak iki bölümden oluşur. İlk bölümde, alegori kavramı üzerinden kavramsallaştırılan ulusal ve modern alegori anlayışları, niteliksel desenli bu çalışmada göstergebilimsel bir yaklaşım tercih edilerek filmler çözümlenirken bu kavramların birbirine zıt ancak aynı zamanda birbirini tamamlayan yönleri sorgulanacaktır. Son bölümde ise, Tayfun Pirseliimoğlu'nun sinemasal üretimleri olan; *"Yol Kenarı"* (2017) ve *"Kerr"* (2021) filmleri; suç ve suçlu, adalet arayışı, hınç, kadercilik, gelenekçilik, rüyalar, bürokrasi eleştirisi, toplumsal ahlak ve siyasal eleştiri gibi alegorik temalar çerçevesinde incelenecektir. Bu bağlamda, filmlerin ulusal ve modern alegori arasındaki gerilimleri ve karşıtlıkları nasıl temsil ettiği incelenecektir. Pirseliimoğlu'nun sineması, taşra ve kasaba hayatını alegorik bir bağlamda ele alarak toplumsal yapıları ve bireysel yabancılaşmayı derinlemesine anlamayı mümkün kılarken; bu çalışmada göstergebilimsel bir yaklaşımla gerçekleştirilen analizler, filmlerin imgelerini ve sembollerini yorumlayarak izleyicilere farklı bakış açıları sunacaktır.

1. Alegori Kavramsallaştırılması: Ulusal ve Modern Alegori Karşıtlığı

Alegori disiplinlerarası alanlarda kullanılabilen, herhangi bir temsil şeklini düz anlamın ötesine taşıyarak daha derin, sembolik ve çoğu zaman soyut bir mesajı taşıyan yan anlamsal ifade biçimi olarak tanımlanabilir. Bu kavram spesifik olarak edebiyat, resim, sahne sanatları ve sinema gibi disiplinlerde, bireylerin ve toplulukların tarihsel, siyasal, toplumsal ve kültürel bağlamlarını yansıtmaya aracı olarak işlev görmüştür. Alegori, bir başka deyişle bir şeyi başka bir şey aracılığıyla anlatma sanatı olup, izleyiciyi veya okuyucuyu katmanlar arası bir anlam dünyasına davet eder.

Alegori kavramı, birey ve toplum eksenindeki dönüşümleri ve ideolojik yapıları temsil eden işlevsel bir araç olarak ele alınmıştır. Ulusal ve modern alegori karşıtlığı ise farklı düşünürler tarafından çeşitli yaklaşımlarla tartışılmıştır. Ulusal alegori kavramsallaştırması, Fredric Jameson tarafından ortaya konan Marksist bir bakış açısıyla alegoriyi bilinçdışı bir hal ile ilişkilendirirken, bireysel anlatıların aslında toplumsal, siyasal ve tarihsel bağlamların birer yansıması olduğunu söyler. Jameson, Üçüncü Dünya metinlerinin kaçınılmaz olarak alegorik bir yapıya sahip olduğunu ve bu anlatıların toplumsal ve siyasi anlamlar taşıdığını savunur. Buna karşılık Paul de Man, Walter Benjamin ve Franco Moretti, Üçüncü Dünya olarak sunulan metinlerin alegorik bir yapıya sahip olmak zorunda olmadığını söyler. Walter Benjamin alegori kavramını kullanırken, tarihsel melankoli ve zamansallığın birbirine bağlandığı bir yapı olarak inceler. Paul de Man ise alegoriyi, zaman ve anlamın sürekli ertelendiği metin ve metinlerarasılık düzeylerinde bir yapı olarak ele almıştır. Franco Moretti alegoriyi modern epik, kültürel göstergeler ve toplumsal dönüşümlerin yansıması olarak yeniden ele alır ve bu tartışmaları modern alegorinin toplumsal ve bireysel yabancılaşmayı anlamada bir analiz aracı olarak kullanılabileceğini ileri sürer.

Ulusal Alegori Kavramsallaştırılması

Modern dönemin önemli figürlerinden olan Fredric Jameson, alegoriyi edebi bir araç olarak ele alıp, aynı zamanda tarihsel ve siyasal bir bilinç üretme mekanizması olarak da değerlendirmektedir. Jameson, alegori kullanımını toplumsal yapının içinde bulunduğu tarihsel süreçlerle örtüştürerek, anlatıların içindeki bilinçdışı hali açığa çıkarmayı amaçlar ve bunu yaparken de siyasal bilinçdışı, marksizm ve biçim, modernizm ideolojisi ve alegori ve ideoloji gibi anahtar kavramlar kullanmıştır. Fredric Jameson tarafından ortaya atılmış bir kavram olan ulusal alegori, (Jameson, 2008) *"Modernizm İdeolojisi"* adlı kitapta şu şekilde ele alınır: *"Bütün üçüncü dünya metinleri zorunlu olarak alegoriktir, üstelik son derece özgül bir biçimde alegoriktir; bunların ulusal alegoriler adını vereceğim alegoriler olarak okunmaları gerekir..."* (Jameson, 2008, s. 372).

Jameson'ın ortaya attığı ulusal alegori kavramsallaştırması, üçüncü dünya devletleri bağlamında önemli bir perspektif sunar. Ona göre, bu coğrafyadaki anlatılar yüzeysel olarak bireysel hikâyeler anlatıyor gibi görünse de aslında daha derin bir işleve sahiptir. Jameson, bu metinlerde bireyin benliğinin içinde bulunduğu toplumun kolektif benliğiyle özdeşleştiğini ve ortak bir amaca hizmet ettiğini savunur. Ayrıca, bu edebi eserlerin toplumsal, siyasal ve politik göndermelerle yüklü olduğunu öne sürer. Ona göre, üçüncü dünyadan gelen tüm metinler ulusal alegoriler olarak tasarlanırlar; çünkü hem sansür nedeniyle dolaylı anlatım kullanırlar, hem de yaratıcılarının kişisel benlikleri ülkelerinin kolektif benliğiyle uyumludur.

Jameson'ın ulusal alegori kavramı, üçüncü dünya bağlamında özel alan ile kamusal alanın iç içe geçtiği ve aralarında radikal bir kopukluğun bulunmadığı temel

düşüncesine dayanır. (Jameson, 2008, s. 372). Çünkü Jameson'a göre, kapitalist kültürün belirleyici ayrımı olan özel alan ile kamusal alan, şiirsel olan ile siyasal olan, cinsellik ve bilinçaltının alanı ile sınıfların ve ekonominin alanı arasındaki ayrım, üçüncü dünyada gerçekleşmemiştir (Gürbilek, 2016, s. 171). Jameson'ın tezine göre, üçüncü dünya bağlamında psikolojik olan ile toplumsal olan iç içe geçmiş durumdadır. Bu kesişim alanında bireysel deneyimler kolektif gerçekliğin alegorik temsillerine dönüşür. Jameson, buradan hareketle, üçüncü dünya kültüründe psikolojiyi ya da libidinal yatırımı öncelikle siyasal ve toplumsal çerçevede okumak gerektiğini öne sürer.

Jameson bu önerisini Hegel'in (Hegel, 1980) "Efendi-Köle" diyalektiğine referansla açıklar. Ona göre, kölenin (Üçüncü Dünya'nın) kendi durumuna ilişkin gerçek bir materyalist bilince ulaşma potansiyeli varken, efendi (Birinci Dünya) idealizme saplanıp kalacaktır (Jameson, 2008, s. 395); çünkü Jameson, efendinin tepeden bakan bakış açısının epistemolojik olarak sakatlayıcı olduğunu ve öznelere indirgeyici bir şekilde ele aldığını savunur. Bu yaklaşımın, tarihsel bağlamdan kopuk bir anlamlandırmaya yol açacağını öne sürer. Üçüncü dünyaya dair metinlerin belirli kıstaslardan ötürü zorunlu olarak alegorik olabileceğini öne süren Jameson, üçüncü dünya için bir çeşit özgöndergesel araç olarak işlev gören alegorinin, üçüncü dünyalı yaratıcılarca bilinçli olarak kullanıldığını düşünür. Üçüncü dünya metinleri için hem bir saptama hem de bir okuma önerisi içeren bu tezi, üçüncü dünyanın kültürel farklılığına işaret etmek için geliştiren Jameson aynı zamanda Batı edebiyatında gözden düşmüş bir tür olan alegoriyi yeniden canlandırmak, bu metinlerde bilinçdışına itilen alegorik yapıların deşifre edilmesini sağlamak istemektedir (Gürbilek, 2016, s. 171-172).

Jameson'ın üçüncü dünya metinleri için ortaya koyduğu yaklaşım kuşkusuz yanlış değildir; ancak eksik ve genellemeci olduğu iddia edilebilir (Belge, 1998, s. 65-74). *"Edebiyat Üstüne Yazılar adlı kitapta, Fredric Jameson ile Aijaz Ahmad arasındaki bir tartışmaya yer verilir. Bu tartışma, Jameson'ın Social Text dergisinde yayımlanan bir makalesinden kaynaklanmıştır. Jameson, "Çokuluslu Kapitalizm Çağında Üçüncü Dünya" adlı makalesinde, üçüncü dünya ülkelerinin edebiyatlarının tamamının ulusal alegoriler olduğunu öne sürer. Bu görüş, Jameson'ın şu sözlerinde net bir şekilde ifade edilmektedir: "Bütün üçüncü dünya metinleri, zorunlu olarak alegoriktir, üstelik son derece özgül bir biçimde alegoriktir; bunların ulusal alegoriler adını vereceğim alegoriler olarak okunmaları gerekir..."* (Jameson, 2008, s. 21) Ancak Jameson'ın bu argümanları, aynı derginin sonraki sayısında yayımlanan *"Öteki Retoriği ve Ulusal Alegori"* başlıklı eleştirisiyle karşılıklı bulmuştur (Ahmad, 1995).

Ahmad, bu yaklaşımın üçüncü dünya edebiyatını indirgemeci bir bakış açısına hapsettiğini savunur ve bu tür genellemelerin her zaman geçerli olmadığını vurgular (Uyurkulak, 2014) ve *"Üçüncü Dünya Edebiyatı ve Ulusal Alegori"* adlı makalesinde bu tartışmayı ayrıntılı bir şekilde ele alır. Tartışma 1986 yılına dayanmasına rağmen hem Jameson'ın kullandığı kavramlar ve şemalaştırmalar hem de Ahmad 'ın bunlara yönelik eleştirileri güncelliğini korumaktadır (Uyurkulak, 2014, s. 136). Jameson'ın üçüncü dünya edebiyatını ulusal alegorilerle sınırlaması, yalnızca edebi metinlerin bireysel bağlamlarını değil, aynı zamanda bu metinlerin küresel kapitalizm bağlamında nasıl okunması gerektiği üzerine derinlemesine bir tartışma başlatmıştır. Jameson ve Ahmad arasındaki tartışma, yalnızca üçüncü dünya edebiyatına ilişkin bir kavramsal çerçeve değil, aynı zamanda sömürge sonrası toplumların edebi üretimlerini anlamlandırma biçimlerine dair ideolojik ayrışmaları da ortaya koymaktadır.

Aijaz Ahmad, Jameson'ın metninin giriş bölümündeki fikirleri önemli bulur. Jameson'ın metnine coşku katan bu yakarış - Amerikan eğitim kurumlarında edebiyat eğitiminin yalnızca Batı edebiyatı değil, dünya edebiyatı temelinde şekillenmesi; kanon edebiyat kavramının hakim zevkin dışlayıcılığı yerine kapsayıcı ve çoğulcu bir yaklaşıma dayanması - doğal olarak takdir edilesi bir girişimdir (Ahmad, 1995, s. 39). Ahmad, Jameson'ın makalesinin iyi bir niyetle başladıktan sonra, üçüncü dünya hakkındaki genelleşici ve ötekileştirici varsayımlarının bilişsel estetik kuram geliştirme çabasını sekteye uğrattığını belirtir. Bu bağlamda, Ahmad'ın eleştirisi, postkolonyal çalışmaların temsil, ötekileştirme gibi temel meselelerini tartışmaya açması; özünde Jameson'ın teorik bakışının eksikliklerini de sorgulamaktadır. Böylece, postkolonyal görüşün sanatsal üretimler üzerindeki etkisi ve bu yaratıların kapitalist bağlamdaki yerinin değerlendirilmesi gerekliliğini ortaya koyar.

Modern Alegori Kavramsallaştırılması

Alegoriyi edebi ve eleştirel teori bağlamında derinlemesine inceleyen Paul de Man, bu kavramı gelenekselde kalan anlam dünyasından uzaklaştırarak modern bir çizgiye taşımıştır. De Man, alegorileri salt bir anlatı formu olarak değil, aynı zamanda metinsel zamansallık ve anlamın diyalektik üretim süreçlerini çözümlemeyi açıklayan epistemolojik bir model olarak konumlandırır (De Man, 2008). "*Okumanın Alegorileri*" adlı eserinde, alegorileri dilin ve ele alınan metnin kendi kendisiyle kurduğu çelişkili ilişkiyi görünür kılan bir araç olarak tanımlamıştır. Ona göre alegori yalnızca metnin içindeki bir katman örüntüsü değil, aynı zamanda metinlerarası dolaşımda olan anlamın sürekli ertelenmesi ve yeniden inşası sürecinin temsidir. Paul de Man'ın incelediği bu süreçte alegori hem edebi eserlerde hem de sinema gibi görsel-işitsel anlatılarda derinlemesine kullanılabilen ve yüzeysel anlamların ötesine geçebilen bir kavram olarak karşımıza çıkar.

De Man, modern alegori yaklaşımını ulusal alegoriden üç temel ölçütte ayırır: anlamın sürekli ertelenmesi, dilsel çatışmalar ve çelişkiler. Bu unsurlar, alegorik okumanın epistemolojik çerçevesini oluşturan temel ayrışmalardır. Bir anlatının sabit bir anlam ifade etmesi yerine sürekli metinlerarası göndermeler yapması, De Man'a göre alegoriyi zamana bağlı bir anlam yaratma süreci haline dönüştürür. Bu yapısal özellik, (Derrida, 1999) *différance* kavramıyla da paralellik gösteren bir anlam ertelenmesi mekanizması yaratır. İkinci ölçütte De Man, modern alegoride dilin kendi içsel çelişkilerini yansıtarak anlamın kesinliğini sorgular ve bu çelişkileri çözümlemek için alegoriyi eleştirel bir araç olarak kullanır. De Man'ın üçüncü analitik ekseninde modern alegori, dilin kendi iç çelişkilerini sistematik olarak ortaya koyan bir süreç şeklinde konumlanır. Bu yaklaşım, metinlerin anlamı sabitleme iddiasından ziyade, dilin epistemolojik sınırlarını ve yapısal belirsizliklerini açığa çıkaran bir işlev üstlenir.

De Man bu ayrışimlardan hareketle alegoriyi zaman üzerinden tartışmaya açar ve "*Okumanın Alegorileri*" (2008) adlı kitabında alegorik yapının özünde zamansal bir anlamlandırma paradigması barındırdığını ortaya koyar. De Man'a göre alegori, yalnızca zamansal bir anlam inşası değil, aynı zamanda bu insanın dilin zamansal yapısıyla organik bağlantısı nedeniyle anlatısal zamanı geçmiş, şimdi ve gelecek arasında sürekli ertelenen bir anlam üretim sürecine dönüştüren bir mekanizmadır. Paul de Man'ın alegori anlayışındaki zamansallık ve anlamın ertelenmesi vurgusu, (Deleuze, 2021), "*Zaman-İmge*" adlı kitapta ele alınan zaman-imge kavramıyla doğrudan bağlantı kurulabilecek bir yaklaşımdır. Her iki düşünür de anlamın sabit olmadığını ve zamanın anlatıda merkezi rol oynadığını farklı bağlamlarla ortaya koymuştur. (Deleuze, 2021). *Zaman-İmge* adlı eserinde, imge ile temsil arasındaki ilişki sorgulayarak geleneksel temsil anlayışını aşan bir yaklaşım geliştirilir. Deleuze'e göre

alegorik imgeler, kapalı anlam dizgeleri sunmak yerine, politik-epistemolojik alanda yeni olasılık alanları açan dinamik yapılar olarak işlev görür.

Paul de Man'dan sonra modern alegoriyi geliştiren Benjamin, "*Alman Trajik Dramasının Kökeni*" adlı kitabında alegoriye geleneksel retorik anlayışın ötesinde, tarihsel ve felsefi bir bağlam kazandırmıştır (Benjamin, 1998). Benjamin, alegori kavramını yüzeysel anlamların ötesinde bir çağrışımlar sistemi olarak ele alır. Bu sistem, metinsel ve temsili yapıların görünür içeriği altında biriken tarihsel, kültürel ve varoluşsal katmanları metodik biçimde ortaya çıkaran bir analiz çerçevesi sunar. Alegori, bir sembolün tek bir anlamla sınırlandırılmasından ziyade çoklu çağrışımları ve karmaşık ilişkileri bir araya getiren bir yapı olarak değerlendirilir. Daha da ötesinde, alegori bir tarihsel dünya görüşüdür. Alegorik anlatılar parçalanmış anlamlar aracılığıyla tarihsel, kültürel ve siyasal dönüşümleri ifade ederken, aynı zamanda bu anlamların belirsizliğini ve sürekli yitirilme tehlikesini de gözler önüne serer.

Benjamin, modern alegori kavramına melankoli kavramıyla kurduğu ilişki aracılığıyla yeni bir boyut kazandırır. Ona göre alegoriler, melankolinin estetik tezahürleridir; çünkü melankoli, hayati anlamın yitirildiği ve dünyaya köklü bir yabancılaşmanın deneyimlendiği bir durumu ifade eder. Bu bağlamda Benjamin'in modern alegori yaklaşımı, melankolik doğa fikrinden üç temel ölçütü ayırır: parçalanmışlık ve dağınıklık, geçicilik ve ölüm ile tarihin yıkıntıları. Alegorik okumanın epistemolojik çerçevesini bu ayırışmlar oluşturur. Melankoli, parçalanmışlığın duygusal karşılığı olarak görülürken, alegoriler bütünsellik iddiasında bulunamaz. Aksine, anlamı diyalektik bir süreçle sürekli başka anlamlara yönlendirerek parçalı ve katmanlı bir yapı sunar. İkinci ölçütte Benjamin, melankolinin varoluşsal kaygılarla doğrudan örtüştüğünü belirtir. Alegoriler, şeylerin geçici doğasını ve yaşamın sonluluğunu temsil eder. Son ölçütte ise alegoriler, tarihsel yıkıntıların fenomenolojik bir tezahürü olarak ortaya çıkar. Alegorik anlatılar, geçmişin parçalarını bir araya getirerek tarihsel süreçlerin karmaşıklığını ve belirsizliğini ifade eder.

Walter Benjamin'in temellerini attığı, Paul de Man'ın teorize ettiği ve Franco Moretti'nin geliştirdiği modern alegori kavramsallaştırması, modern metin eleştirisine yenilikçi yaklaşımlar sunmuştur. Moretti özelinde alegori, edebi retorikğin ötesinde sosyokültürel analizin epistemolojik bir nesnesi olarak yeniden tanımlanmıştır. Moretti, alegoriyi belirli bir dönemin kolektif zihniyetini, toplumsal yapısını ve ideolojik çatışmalarını anlatmak için kullanmıştır. Alegorileri özellikle kapitalist modernitenin yükselişi bağlamında hem sanatsal hem de toplumsal analizlerde bir araç olarak değerlendirmiştir.

Moretti, modern alegoriyi toplumsal ve bireysel yabancılaşma bağlamında ele almış, alegorik metinlerin kapitalist toplumların iç çelişkilerini ve yapısal karmaşıklığını nasıl yansıttığını analiz etmiştir. Ona göre bu anlatılar, bireysel deneyimlerden çok kolektif sosyal dinamiklerin temsilidir. Modern alegori, bireyin içinde bulunduğu koşulları sorgulamasına ve bu durumun yapısal özelliklerini açığa çıkarmasına olanak tanır. Moretti, modern alegoride anlam arayışının mutlak doğasının terk edildiğini, anlamın parçalanmış, geçici ve çoğul yapısının benimsendiğini ileri sürer. Bu epistemolojik dönüşümün kapitalizmin geç evreleriyle bağlantılı olduğunu savunur. Burada atıfta bulunulan geç kapitalizm vurgusu, Jameson'ın "*Postmodernizm ya da Geç Kapitalizmin Kültürel Mantığı*" adlı eserinde (Jameson, 2008) kullanılmıştır. Jameson, "geç kapitalizm" terimini bir kopuş olarak değil, kendisinden önceki dönemle arasındaki sürekliliği vurgulamak amacıyla

kullandığını belirtir (Jameson, 2008, s. 21). Moretti'nin alegorik çözümlemeleri, Jameson'ın geç kapitalizm tezleriyle diyalektik bir ilişki içinde değerlendirilebilir.

Moretti'nin modern alegori eleştirisine getirdiği yenilikçi yaklaşımları analiz edebilmek için, ilgili kitaplarında ortaya koyduğu modern alegori kavramsallaştırmasının sistematik olarak incelenmesi gerekmektedir. Moretti'nin "*Uzak Okuma*" adlı eserinde öne sürdüğü uzak okuma metodolojisi, alegori kavramının yeniden değerlendirilmesi için epistemolojik bir çerçeve sunar (Moretti, *Uzak Okuma*, 2021). Bu yöntem, bireysel metinlerin ayrıntılı analizinden ziyade anlatısal yapıların makro düzeydeki tematik ve yapısal örüntülerini sistematik biçimde ortaya koymayı amaçlar. Söz konusu metodoloji, metinler arasındaki diyalektik ilişkileri ve tarihsel dönüşüm dinamiklerini analiz etmek için kavramsal bir araç işlevi görür.

Franco Moretti, (Moretti, 2023) "*Modern Epik*" ve (Moretti, 2013) "*Epik Roman*" adlı eserlerinde, modern anlatının dönüşümünü alegorik temsiller üzerinden inceleyerek, kapitalist modernitenin formlar üzerindeki etkilerini çözümlemeye çalışır. Franco Moretti'nin teorik çerçevesinde epik anlatı formu iki katmanlı bir işleve sahiptir: bir yandan bireysel deneyimleri aktarırken, diğer yandan bu deneyimlerin tarihsel-toplumsal yapılarla kurduğu diyalektik ilişkiyi yapısal olarak temsil eder. Kapitalist toplumun karmaşık dinamikleri, epik anlatılarda alegorik bir bilinçle görünür hale gelir; mikro düzeydeki bireysel yaşam öyküleri bu sayede makro düzeydeki sosyo-tarihsel dönüşümlerin anlamlı göstergelerine dönüşür. Moretti'ye göre bu dönüşüm alegorik anlatının ideolojik işlevini zayıflatmakla birlikte, bireyin toplumsal konumunu yeniden sorgulama imkânı sunar. Modern anlatılar böylece alegoriyi sadece temsili bir dil olarak değil, aynı zamanda toplumsal bilinç üretiminin bir aracı olarak ele alır.

Moretti'nin "*Mucizevi Göstergeler*" adlı çalışması, modern alegori kavramını tarihsel, ideolojik ve kültürel bağlamlarda yeniden düşünmeye olanak tanıyan özgün bir teorik çerçeve sunar (Moretti, 2005). Moretti alegoriyi salt estetik bir anlatım biçimi olarak değil, toplumsal-ideolojik çatışmaları yansıtan ve dönüştüren bir işlevle ele alır. Alegori bu bağlamda hem bireyin toplumsal konumunu hem de kolektif bilinçaltındaki dönüşümleri görünür kılan bir temsil biçimine dönüşür. Moretti, alegorik yapının iktidar ilişkilerini yeniden üretme, toplumsal normları kalıcı hale getirme ve bireysel deneyimi kolektif yapılar içinde eritme potansiyeline vurgu yapar. Yazarın kültürel ve postkolonyal alegori incelemeleri özellikle dikkat çekicidir; bu analizler sömürge sonrası toplumlarda kimlik, kültür ve tarih temsillerinin alegorik zemin üzerinde nasıl şekillendiğini ortaya koyar. Mucizevi göstergeler böylece modern alegoriyi yalnızca biçimsel bir anlatı stratejisi değil, aynı zamanda toplumsal eleştiri, kültürel yeniden inşa ve ideolojik çözümleme için etkili bir araç olarak konumlandırır.

Moretti'nin modern alegoriye dair yenilikçi yaklaşımını anlamak için, bu kavramsal çerçevenin hangi temeller üzerine inşa edildiğini ve hangi kuramsal paradigmlar içinde konumlandırıldığını sistematik biçimde analiz etmek gerekir. Moretti alegoriyi salt simgesel bir temsil biçimi olarak değil, toplumsal ve tarihsel gerçekliklerin yapısal çözümlemesini mümkün kılan ve bu gerçekliklerin dekonstrükte edilmiş izlerini taşıyan bir anlatı formu olarak yeniden yorumlar. Modern alegori onun yaklaşımında, bireyin dünyayla kurduğu yabancılaşmış ilişkinin epistemolojik ifadesi olmanın ötesinde, bu yabancılaşmanın altında yatan yapısal dinamikleri görünür kılan analitik bir araç işlevi görür. Jameson'ın işaret ettiği geç kapitalizm evresinde anlamın parçalanması ve mutlak hakikatin yerini çoğul, geçici ve dağınık anlam kümelerine bırakması olgusu, Moretti'nin alegori kuramında merkezi bir önem taşır. Moretti'nin kuramsal perspektifinde modern alegori, estetik bir tercih olmaktan çıkıp ideolojik

çözümleme ve sosyolojik eleştiri için epistemolojik bir zemin haline gelir. Moretti'nin eserlerinde geliştirdiği bu kuramsal çerçeve, alegorik okumayı modern anlatıların yapısal karmaşıklığını çözümlemede metodolojik bir araç olarak yeniden konumlandırır.

Ulusal ve Modern Alegori Karşıtlığı

Alegori kavramı, tarihsel gelişim sürecinde, disiplinlerarası bir bakışla toplumsal, siyasal ve kültürel yapıların temsiliinde önemli bir araç olmuştur. Bununla birlikte, alegorik söylemin işlevsel boyutları ve biçimsel nitelikleri, tarihsel koşullara bağlı olarak önemli dönüşümler geçirmiştir. Ulusal alegori ile modern alegori arasındaki diyalektik gerilim, bu dönüşümün iki farklı epistemolojik aşamasını temsil eder ve belirli karşıtlıklar üzerine inşa edilir. Bu bağlamda, Fredric Jameson'ın ulusal alegori kavramsallaştırması ile Paul de Man, Walter Benjamin ve Franco Moretti'nin modern alegoriye dair kuramsal yaklaşımları, bu iki kavramsal yapının temel karşıtlıkları belirli anahtar kavramlar çerçevesinde tartışılacaktır.

Alegori kavramı; anlamın durumu, tarihsel-toplumsal gerçeklik, birey-toplum diyalektiği ve ideolojik söylem gibi analitik desenler üzerinden, farklı düşünsel gelenekler bağlamında ayrılmaktadır.

Jameson'ın ulusal alegori anlayışına göre, Üçüncü Dünya metinlerinde ele alınan bireysel anlatılar, toplumsal ve tarihsel süreçlerin temsili olarak okunur. Bu yaklaşım, anlatının anlamını belirli bir politik ve ideolojik bağlama sabitleyerek kültürel direniş gibi temaları ön plana çıkarır. Jameson'a göre bu anlatılar, bireysel düzeyde kurgulansa da kolektif bilinç, ulusal kimlik ve toplumsal çatışmaların temsili niteliğindedir. Bu bağlamda anlam; sabit, doğrudan ve bağlama sıkı sıkıya bağlıdır. Buna karşın, modern alegori anlayışı –özellikle Paul de Man ve Walter Benjamin'in düşüncelerinde– anlamın sabitlemesine karşı bir duruş sergiler. De Man'a göre modern alegori, anlamı sabitlemek yerine erteler; böylece okuyucu ya da izleyici, metinlerarasılık ve bağlamsal çoğulluk içinde düşünmeye yönlendirilir. Anlamın ertelenmesi, metindeki belirsizlikleri ve çelişkileri görünür kılar. Bu nedenle modern alegori, tekil bir temsil yerine parçalanmışlık, katmanlılık ve yoruma açıklık üzerine kurulur. Benjamin'in perspektifinde ise alegori, mutlak bir anlam üretme çabası taşımaz; aksine, tarihsel kırılmaları, kopuşları ve dilin temsil gücündeki yetersizlikleri öne çıkarır.

Jameson'ın ulusal alegori kavramsallaştırması, özellikle Üçüncü Dünya metinlerinde bireysel deneyimleri toplumsal ve tarihsel gerçekliklerle örtüştürerek ulusal kimlik ve siyasal mücadeleleri açık biçimde temsil eder. Ona göre bu metinlerde bireysel hikâyeler, ulusal tarihin bir mikrokozmosu olarak işlev görür. Bu nedenle ulusal alegori, tarihsel gerçekliği sabit ve belirgin bir biçimde temsil eder. Buna karşılık, modern alegori tarihsel süreçlerin karmaşıklığını ve belirsizliğini yansıtır. Bu tür anlatılar, geçmişin parçalarını bir araya getirerek tarihin sürekli yeniden yorumlanmasına olanak tanır. Walter Benjamin, tarihsel süreci parçalı, belirsiz ve çok katmanlı bir yapı olarak ele alır. Bu bağlamda modern alegori, ulusal alegorinin aksine, tarihsel gerçekliği durağan biçimde temsil etmek yerine onun parçalı ve çok katmanlı doğasını vurgular.

Jameson'a göre ulusal alegori, bireysel deneyimleri kolektif kimliğin bir parçası olarak ele alır. Üçüncü Dünya anlatılarında bireyin kişisel çatışmaları, doğrudan ulusal kimlik ve toplumsal mücadelelerle ilişkilidir. Bu metinlerde bireysel hikâyeler, toplumsal yapıların bir yansıması olarak okunur. Jameson'a göre bu tür alegorik anlatılar, bireyin özel yaşamı ile kamusal alan arasındaki ayrımı

belirsizleştirdiği bir bağlamda işler. Modern alegori ise -Paul de Man, Walter Benjamin ve Franco Moretti gibi düşünürlerin yaklaşımlarında olduğu gibi- bireyin toplum karşısındaki yabancılaşmasını ve bu durumun yarattığı çelişkili, melankolik yapıyı öne çıkarır. Bu bağlamda modern alegori, ulusal alegorinin kolektif kimlik vurgusunun aksine, bireysel deneyimlerin toplumsal yapılarla olan çatışmalarını merkezine alır.

Fredric Jameson'a göre ulusal alegori kavramsallaştırması, dilin ideolojik ve tarihsel bir bağlamı temsil etme işlevine dayanır. Üçüncü Dünya edebiyatında bireysel deneyimler, kolektif bilinç ve ulusal kimlik inşasının bir parçası olarak sunulur. Bu bağlamda dil, sabit ve doğrudan anlam üretir. Ancak bu sabitlik, farklı yorumlara açık katmanlı yapılarla kırılabilir; böylece ulusal alegori, durağan değil, dinamik ve yeniden inşa edilebilir bir anlatı formuna dönüşür.

Jameson'ın yaklaşımının aksine, Paul de Man ve Franco Moretti gibi düşünürler modern alegoriyi, dilin anlam üretme kapasitesini sorgulayan bir yapı olarak değerlendirir. Bu anlayışta anlam, sabitlemez; dil ise çelişkili ve yorumlamaya açık bir yapıdır. Bu tür anlatılar ideolojiyi doğrudan temsil etmek yerine, onu eleştirel biçimde açığa çıkarır. Okuyucu ya da izleyici, bu süreçte pasif bir alımlayıcı değil, aktif bir yorumlayıcı hâline gelir ve tekil ideolojik okumaların ötesine geçer. Bu yönüyle modern alegori, ulusal alegorinin öğretici ve kesin anlam üretme çabasını aşarak, belirsizlik ve yorum çeşitliliğini temel alan bir anlatı modeline dönüşür.

Ulusal ve modern alegori kavramsallaştırmaları, alegorik anlatının iki farklı yönünü temsil eder. Ulusal alegori, toplumsal gerçekliği sabit bir biçimde temsil ederken; modern alegori, anlamın belirsizliğini ve ertelenmesini ön plana çıkarır. İlki bireysel deneyimleri kolektif kimlikle iç içe geçirirken, ikincisi bireyin yabancılaşmasını ve toplumsal çatışmalarla ilişkisini vurgular. Bu iki yaklaşım, tarihsel bağlam, dilin işlevi ve birey-toplum ilişkisi gibi başlıklarda birbirinden ayrışır. Bu karşıtlıklar, alegorik anlatının farklı bağlamlarda nasıl işlev gördüğünü anlamamıza katkı sunar.

Ulusal ve Modern Alegori Kavramsallarının Karşıtlığına Göre Alegorinin Çalışma Prensibi

Ulusal ve modern alegori kavramsallaştırmaları arasındaki karşıtlık, alegorinin çalışma prensibini de şekillendirir. Alegori, soyut ya da karmaşık düşünceleri somut ve anlaşılır biçimlerde ifade eden bir anlatı biçimidir. Katmanlı yapısıyla alegorik anlatım, yüzeyde belirli bir öykü ya da imge sunarken, bu yüzeysel anlamın altında daha derin ve soyut iletileri barındırır. Roland Barthes'ın *S/Z* adlı eserinde, metinler birer anlam üretim sistemi olarak değerlendirilir ve bu üretimin çeşitli kodlar aracılığıyla gerçekleştiği ileri sürülür (Barthes, 2016). Sinema da görsel-dilsel bir metin olarak okunabilir. Bu bağlamda alegorik anlatım, söz konusu kodların etkileşimiyle alt metinleri ortaya koyar. Alegorik anlamın göstergebilimsel inşası ve alegorinin işleyiş biçimi, Barthes'ın tanımladığı hermeneutik kod, semik (karakter) kod, sembolik kod, proaretik (eylem) kod ve kültürel (referans) kodlar aracılığıyla açıklanabilir.

Alegorik anlatılarda, özellikle modern alegorilerde, anlam doğrudan sunulmaz; bunun yerine, gizemli ve çözümlemeye açık yapılar kurulur. Buna karşın, ulusal alegorilerde hermeneutik (yorumsal) kod daha belirgin ve doğrudan çözülmeye yatkındır. Semik (anlamsal) kod ise nesnelerin, karakterlerin ya da mekânların kültürel ve ideolojik anlamlarını taşır. Sinemada bu tür alegorik figürler genellikle belirli bir ideolojiyi veya toplumsal yapıyı temsil eder. Modern alegorilerde bu temsiller sabitlemezken; ulusal alegorilerde, bu temsiller izleyiciye bir sistem

eleştirisi olarak sunulur. Sembolik kod zıtlıklar, çatışmalar ve ikilikler üzerinden anlam üretir. Ulusal alegorilerde bu kod, ulusal kimlik ile sömürgeci yapı arasındaki çatışmayı vurgularken; modern alegorilerde söz konusu çatışmalar, tarihsel gerçeklikten çok varoluşsal bir belirsizlik yaratır. Proaretik (eylem) kod, anlatının olay örgüsünü belirler. Modern alegoride bu kod, olayın ertelenmesi ya da yokluğu biçiminde işler; böylece yapıbozumcu bir anlatı kurulurken, izleyici eylemden çok atmosfer üzerinden yönlendirilir. Ulusal alegoride ise olaylar, kolektif kurtuluş ya da direniş gibi net hedeflere yönelmiştir. Barthes'ın kültürel (referans) kodu, izleyicinin dış dünyaya dair bilgi birikimini devreye soktuğu alandır. Ulusal alegorilerde bu kodlar, gelenek, din, bürokrasi, taşra yaşamı gibi öğelerle ideolojik anlatıyı sabitler. Modern alegoriler ise bu kültürel kodların yapaylığını, çelişkilerini ve kırılğanlığını görünür kılar (Gülmez, 2008, s. 91-94).

2. Ulusal ve Modern Alegori Karşıtlığında Tayfun Pirselimioğlu Sinemasına Bakış

Tayfun Pirselimioğlu'nun sineması; suç ve suçlu kavramı, adalet arayışı, hınç, kadercilik, gelenekçilik, rüyalar, bürokrasi eleştirisi, toplumsal ahlak ve siyasi eleştiri gibi temaları ele alışıyla, onun sinema anlayışına bağlı alegorik anlatımın nasıl biçimlendiğine ve filmlerin nasıl konumlandığına işaret etmektedir. Yönetmenin taşra ya da kasaba olarak konumlandığı sinemasal mekânda, yüzeysel olarak görünen bu alegorik temaların anlamlarını bir sinematik eyleyen üzerinden, iletişim mekanizmalarının etkisini dikkate alarak okumak, çalışma açısından önemli bir yerde durmaktadır. Bu bağlamda ele alınacak filmler, toplumsal yapı ile sinemasal anlatı arasındaki ilişkiyi irdelemek açısından önem arz etmektedir. Türk sinemasında alegorik anlatının dönüşümünü gözler önüne seren çarpıcı örnekler olan *"Yol Kenarı"*(2017) ve *"Kerr"*(2021) filmleri, alegorik anlatının iki farklı kavramsal olan ulusal alegori ve modern alegori arasında şekillenen farklı anlatısal yapıları işaret etmektedir.

Anlatısal yapıların karşıtsallığı bağlamında *"Yol Kenarı"* filmi; bir kıyamet sonrası beklentisi, taşranın çöküşü ve bireyin kaderci teslimiyeti gibi temaları alegorik bir dille işler. Film, bireysel anlatıyı ulusal tarih ve toplumsal yapıyla doğrudan ilişkilendirerek, Jameson'ın Üçüncü Dünya metinleri için öne sürdüğü ulusal alegori kavramına daha yakın bir anlatı yapısı kurar. *"Kerr"* filmi ise modern alegorinin temel özelliklerini barındırır: De Man'ın vurguladığı sabitlenemeyen anlamlar, sürekli ertelenen olay örgüsü ve bireyin toplum karşısındaki yalnızlaşması; Benjamin'in melankolik alegori söylemi ve Moretti'nin modern anlatı çözümlemeleri ışığında filmdeki simgesel yapı, karakterlerin temsil işlevi ve zaman-mekân kurgusu gibi biçimsel unsurlar, alegorik okumaya açık bir metin sunar.

Alegori kavramına dair iki temel yaklaşım olan ulusal ve modern alegori ayrımını, göstergebilimsel bir perspektifle anlamayı ve tartışmayı amaçladığımız bu çalışmada, Barthes'ın sunduğu göstergebilimsel kodlar ışığında, bu iki filmin alegorik yapıları incelendiğinde: bir yanda sabit anlam üretimine dayalı ulusal çerçeve, diğer yanda anlamın ertelendiği parçalı modern yapı açıkça görülebilir. Bu nedenle, *"Yol Kenarı"* ve *"Kerr"* filmleri, Türk sinemasında alegorinin epistemolojik dönüşümünü yansıtan ve sinema-göstergebilim ilişkisini yeniden düşünmeye davet eden önemli metinler olarak karşımıza çıkar.

Yol Kenarı Filminin Analizi

Tayfun Pirselimoglu, *Yol Kenarı* filminde henüz açılış sekansı ile izleyiciyi, tüm filme hâkim olacak bulutlu ve fırtınalı havaya sahip distopik bir atmosfere hazırlar. Bulutlarla kaplı gökyüzü ve fırtınalı hava, filmin kasvetli havasını baştan hissettirir. Sahnede, taşra halkı gizemli bir şekilde ortaya çıkan devasa bir gemiyi hayretle izlemektedir. Bu sırada yaşanan olağanüstü olaylar, yer yer patlak veren yangınlar ve kesintisiz devam eden uğultu, adeta bir kıyamet öncesi atmosferi yaratır. Bu atmosfer, filmin alegorik dilinin ipuçlarını verirken Fredric Jameson'ın kavramsallaştırdığı ulusal alegoriye oldukça yakın bir anlatı modeli sunar. Film, bireysel anlatının ardına saklanmış kolektif bir toplumsal ve siyasal yapıya göndermede bulunur.



Görsel 1-2: Açılış sekansında ulus, millet ve topluma yönelik alegorik bir temsil söz konusudur. Bu sahne, kıyamet atmosferi ve bilinmeyenin ürkütücülüğüyle anlamı erteler. Aynı zamanda ulusal alegorik düzlemde bu sahne, kadercı toplumun dışsal kurtarıcıya duyduğu ihtiyacı simgeler.

Pirselimoglu'nun sinematik taşrası karanlık ve durağan görüntüler eşliğinde kıyametvari bir atmosferde dini, politik ve kültürel kodlara sistematik biçimde göndermede bulunur. Film evrenindeki taşra toplumu kaderciliği, otoriter dini figürleri ve absürt devlet temsilleriyle ulusal tarihin katmanlarında biriken bürokratik ve siyasal sorunları alegorik bir dille eleştirel olarak yeniden üretir. Filmdeki bu taşra, salt fiziksel bir mekân olmanın ötesinde kolektif bir portre çizer. Marjinalleşmiş bireyleri, değişime direnen toplumsal yapıları ve kültürel çelişkileriyle bütüncül bir alegorik temsil oluşturur. Barthes'ın göstergebilimsel çözümleme yöntemi ışığında, filmdeki taşra mekânı üç temel kod üzerinden anlam kazanır: İçerik kapanıklık ve iletişimsizlik (toplumsal kod), çözümsüz kalan yapısal sorunlar (tarihsel kod) ve monoton yaşam ritüelleri (gündelik kod). Böylece filmde mekân olarak konumlanan taşra anlatısı, ulusal alegorinin temel işlevi olan tarihsel-politik bağlama sabitlenmiş anlamları, sinemanın görsel dili aracılığıyla yeniden üretmektedir. Pirselimoglu böylece taşrayı salt bir fon olmaktan çıkarıp, kolektif hafızayı ve politik bilinçdışını yansıtan aktif bir göstergeye dönüştürür.

Filmde kıyamet öncesi bir atmosferin varlığı sürekli olarak izleyiciye hissettirilir; ancak bu durum doğrudan anlatı üzerinden açıklanmaz. İzleyici, taşrada olup bitenleri çözümlemeye çalışırken ertelenen ve belirsizlik üreten bir anlatısal yapıyla karşılaşır. Buradaki bu belirsizlik hali Paul de Man'ın tarif ettiği modern alegorinin sonsuz anlam ertelenmesi olarak değil; Jameson'ın altını çizdiği gibi sabitlenerek ideolojik bir zemine oturan, toplumsal çöküşe, inanç krizine ve otorite boşluğuna gönderme yapan bir yapı ekseninde ele alınabilir. Yine de bu belirsizlik, alegorik anlatıda sabit anlamlar etrafında örgütlenir ve izleyiciye tarihsel bir kırılmayı temsil eden bir dünya sunar. Filmdeki bu kıyamet imgesi hem felsefi hem de ideolojik

bağlamda çok katmanlı bir dünyaya işaret etmektedir ve toplumun kendi yarattığı ahlaki, siyasal ve yapısal tıkanmanın bir sonucu bir ceza olarak kodlanabilir. Bu bağlamda kurulan kıyamet öncesi atmosfer, bireyin içsel boşluğu kadar sistemin sürdürülemez oluşunu da temsil eder. Burada kullanılan içsel boşluk, felsefi bağlamda varoluşsal boşlukla örtüşerek, ideolojik düzlemde de ele alınabilir olan boşluğun alegorik bir temsili olarak okunabilmektedir.

Film-dünyadaki resmi görevliler işlevsiz, kararsız ve tehditkâr figürler olarak çizilmiştir. Onların varlığı devletin işlevini ve temsil yetisini yitirdiği, yapısal çöküşün resmedildiği bir düzleme işaret eder. Bu figürler gösteren olarak otoriteyi çağırıştırırken, gösterilen olarak ise boşlukta kalan ve çözüm üretemeyen devlet imgesine karşılık gelmektedir. Bu yapı, modern devlet sistemindeki siyasal kurumların meşruiyet krizine yönelik doğrudan alegorik bir eleştirinin tezahürü şeklinde tasarlanmıştır. Barthes'ın sunduğu göstergebilimsel kodlar açısından da filmdeki ana karşıtlıklar dikkat çekicidir. Yaşam/ölüm, aydınlık/karanlık, akıl/cehalet gibi ikilikler, toplumun geçirdiği dönüşümü ve içinde bulunulan koşulları alegorik düzlemde temsil eder. Özellikle kasabanın boş sokakları ve duyarsız kalabalıkları çürümüş düzenin ve toplumsal çözülmenin görsel alegorileri olarak kodlanır. Bu ikiliklerin çoğu, bireyin toplumsal değişim karşısındaki konumunu sabitleyerek, ulusal alegorinin ideolojik işlevine hizmet etmektedir.

Anlatı evreninde taşra halkı kolektif bir figür olarak sembolize edilir. Halkın edilgen hali, kabullenışı ve teslimiyeti; taşranın sosyolojik karakterize hali olan kadercilik, gelenekçilik ve değişime direnciyle örtüşür. Bu halk güruhu, bireyin mana arayışına karşı hissiz, kendi içsel kurallarıyla yaşayan ve sorgulamayı dışlayan bir yapıyı temsil eder. Barthes'ın kodları bağlamında, bu figürler sadece bireysel değil, ideolojik semboller olarak okunur. Bu anlamda film, yalnızca bir eyleyenin psikolojik çözülüşünü değil, aydın bireyin ulusal kimlik ve tarihsel hafıza karşısındaki konumunu da sorgular. Modern akıl, baskı figürlerinin ve inançsal boyutun çöküşü karşısında eylemsiz kalmakta, gerçekçi bakış açısı duvarlara çarpmaktadır. Film böylece, aydın olarak konumlanan kişi üzerinden toplumun dönüşümünü aktifleştirme misyonuna sahip bireyin iflasını, ulusal alegori bağlamının temsiline evirir. Bu anlatı yapısı, birey-toplum, akıl-inanç, gelecekçilik-gelenekçilik gibi ideolojik ikiliklerin çözümsüzlüğünü alegorik bir okuma biçimiyle sergiler.



Görsel 3-4: Rüya sekanslarını, anlamın ertelenmesi ve metafizik boşluklar olarak değerlendirmek mümkündür. Rüya film boyunca sıkça tekrarlanır ve anlamı sürekli olarak erteler. Barthes'ın kodları üzerinden okunabilecek bu sahne, bireyin varoluşsal kaygılarını ve toplumsal bilinçdışıyla olan bağıntıyı temsil etmektedir.

Anlatının merkezine yerleşerek belirsizlik üreten ve film boyunca tekrar eden rüyalar ve metafiziksel göndermeler, hem bireysel psikolojik bir boşluk hem de kolektif bilinçdışının ifadesi olarak Nietzsche'nin "*Burada gözler önüne sermeye çalıştığım, gelecek iki yüz yıldır...*" şeklinde başlayan felsefi kehanetinin sinematik aktarımı gerçekleşmiş olur (Işıklar, 2022, s. 15). (Barthes, 2016)'ın "*S/Z*" adlı kitabında bahsettiği hermeneutik yani yorumsal kodu açısından bu rüyalar, çözümlenmeyen gizillerin bir temsilidir; fakat modern alegorinin sonsuz ertelenişi yerine, Jameson'ın ulusal alegori anlayışında olduğu gibi tarihsel ve ideolojik bir bağlama sabitlenmiş anlamlarla ilişkilendirilir. Bu anlamda, filmdeki rüyalar ve kehanetler, sadece bireyin değil, toplumun da geleceğe dair taşıdığı kaygıların sembolüdür. Felsefi bir perspektiften bakıldığında, filmdeki rüya sekansları bilinçdışının karanlık sezgilerini varlık sorunsalı, anlam arayışı ve çözümsüzlük hali üç temel eksen üzerinden temsil eder ve döngüsel zaman algısı, kapalı mekan kurgusu, gerçeklik-hayallik ve nedensellik ilkesinin askıya alınması gibi temsiller, filmin yapısal unsurlarında somutlaşır.

Pirselimoğlu, yine de parçalı yapı içinde, dış müdahaleler, rüyaların belirsizliği ve tarihsel sonun alegorisi gibi faktörleri dahil ederek bir eylem sürekliliği inşa eder. Böylece bu yapı ile, anlatının dağılan gerçeklik algısına rağmen içsel bir ritim ve dramaturjik bütünlük sağlar. Bu ritim, olayların çözüme değil, çözümsüzlüğüne doğru ilerleyişini temsil eder. Filmde zaman, düz bir çizgide değil, bir kısır döngü halinde işlenir; mekân ise sınırları belirli bir coğrafya olmaktan çıkarak psikolojik ve ideolojik bir düzleme evrilir. Mekân, rüyaların mekânına; zaman ise çözülmüş bir anlatının değil, ertelenen anlamların taşıyıcısına dönüşür. Bu noktada film, göstergebilimsel olarak yalnızca anlatılan olaylarla değil, onların anlatılma biçimiyle de ideolojik anlam üretir. Dolayısıyla, filmde anlatının yapısı, mekânın daralması ve zamanın döngüsel örgütlenişiyle birlikte, bireysel deneyim ile toplumsal ve tarihsel gerçeklik arasında alegorik bir köprü kurar. Birey, rasyonel bir varlık olarak sistemin çözülüşüne anlam vermeye çalışsa da hem içsel dünyasındaki rüyalar hem de dışsal dünyadaki çözümsüzlükler, onun bu çabasını geçersiz kılar. Böylece film, bireyin çaresizliğiyle ulusun ideolojik çöküşünü paralel biçimde işler.

Sonuç olarak, Fredric Jameson'ın ulusal alegori tanımına uygun biçimde bireysel anlatının ardına gizlenmiş bir toplumsal ve siyasal çözülmeyi temsil eden filmimiz "*Yol Kenarı*" Barthes'ın göstergebilimsel kodları aracılığıyla bu çözülmenin görsel, yapısal ve simgesel düzeylerde nasıl inşa edildiğini görünür kılar. Filmdeki her bir gösterge taşra olarak konumlanan mekânda, rüyaları, devlet temsilcilerini yaklaşan sabit ideolojik anlamlara bağlayarak, ulusal hafızanın parçalanmışlığını ve toplumsal belirsizliğini alegorik temsillere dönüştürür. "*Yol Kenarı*" filmi, böylece yalnızca bir anlatı değil, aynı zamanda film dünyasındaki yapıya dair kırılmalara, inanç boşluklarına ve temsil krizlerine dair sinemasal bir yüzleşme sunarak anlatıyı sonlandırır.

Kerr Filminin Analizi

Tayfun Pirselimoğlu "*Kerr*" filminde henüz filmin açılış sekansı ile, izleyiciyi tüm filme hâkim olacak üç yabancılaştırma efektiyle karşılar: absürtlük, irrasyonellik ve tekinsizlik (Freud'un *unheimlich* etkisi). Bu sinemasal mekân, Beckett'in zamansız uzamı ile Kafka'nın bürokratik labirentleri arasında konumlanan bir alegorik düzlem olarak belirir. Pirselimoğlu'nun inşa ettiği bu kasaba, Fredric Jameson'ın ulusal alegori kavramsaldan kopuşu temsil eder. Filmin anlatısal yapısı, Jameson'ın sabit

ideolojik anlamlarından ziyade, modern alegori görüşün perspektifleriyle uyum içinde ilerler. Paul de Man'ın dilin alegorik yapısına dair görüşleri, filmdeki göstergelerin istikrarsızlığını ve anlamın sürekli ertelenişini açıklamakta kilit rol oynar. Walter Benjamin'in melankolik alegori fikri, mekân tarihin enkazı olarak okumamıza olanak tanırken, Franco Moretti'nin modern epik analizleri, bireysel deneyimin bir yalnızlık ve yabancılaşma sürecine dönüştüğünü gösterir.



Görsel 5-6: Açılış Sekansı - İrrasyonellik ve tekinsizlik atmosferi ve failin bulunmadığı, nedenin açıklanmadığı ve çözümün sürekli ertelendiği konumlar.

Tayfun Pirselimoglu'nun "*Kerr*" filminde, merkezine babasının cenazesi için eski kasabasına dönen ve adını bile öğrenemediğimiz bir adamı yerleştirir. Filmin merkezinde bir isimsiz anti-kahraman vardır. Bu anti-karakter, kasabaya dönüşüyle birlikte bir dizi absürt ve irrasyonel olayın içerisine çekilir. Pirselimoglu'nun bilinçli tercihiyle karakterin geçmişine dair hiçbir somut bilgi verilmemesi, onu yalnızca fiziksel bir yabancı değil, aynı zamanda psikolojik ve varoluşsal anlamda da bir arada kalmışlık figürüne dönüştürür. Filmin açılış sahnesinde işlenen bir cinayet, klasik dramatik anlatı kalıplarını alt üst eder: cinayetin faili bulunmaz, nedeni açıklanmaz ve çözüm beklenirken sürekli daha fazla belirsizlik üretilir. Bu yapı, modern alegorinin temel özelliği olan anlamın sürekli ertelenmesi ilkesiyle tam bir uyum içindedir. Pirselimoglu, anti-kahraman figürü üzerinden modern bireyin köksüzlük, aidiyetsizlik ve anlamsızlık gibi varoluşsal çıkmazlarını alegorik bir dille görünür kılar. Bu anlam çözümsüzlüğü atmosferi içinde, yönetmenin inşa ettiği sinemasal mekân, zamanın çoktan durduğu, hareketin donduğu bir evren olarak sunulur.

Pirselimoglu sinemasına özgü sabit kadrarlar, uzun planlar ve ifadesiz oyunculuklar, kasabanın havasını daha da ağırlaştırarak izleyiciyi sürekli bir içsel sıkışmışlık duygusuna sürükler. Zaman çizgisel akışını yitirir; mekân, yalnızca fiziksel bir yer olmaktan çıkar ve bireyin zihinsel hapisanesine dönüşür. Böylece kasaba, yalnızca anlatının fonu değil, modern insanın varoluşsal kaygılarını, yönsüzlüğünü ve toplumsal kapanmışlık hissini temsil eden aktif bir alegorik gösterge haline gelir. Anlatı boyunca izleyici, hem bireysel hem de toplumsal düzlemde bir kapanmışlık ve çıkışsızlık duygusuna hapsolür. Bu yapısal özellikler, filmi ulusal alegoriden modern alegoriye evrilen bir sinemasal örnek olarak konumlandırır. Bu bağlamda film, Barthes'ın sunduğu kodlar doğrultusunda çözüm üreten değil, çözümü sürekli erteleyen ve dağıtan bir anlatı formu, Paul de Man'ın alegorik metin anlayışındaki anlamın sürekli ertelenmesi ilkesiyle de uyumludur. Zira her soru başka bir soru doğurur ve hiçbir açıklama kesinliğe kavuşmaz.

Filmdeki kasaba, polis teşkilatı ve bürokratik figürler, işlevsiz, absürt ve irrasyonel biçimde veya doğrudan ideolojik temsiller olarak değil, çok katmanlı ve

kaygan göstergeler olarak sunulur. Bürokratlar ve devlet yetkilileri, bireyin anlamlandıramadığı, çözümlenemeyen sosyal yapıları simgeler. Burada yaşanan sorgulamalar ve cezalar hiçbir mantığa dayanmaz. Bu absürtlük, modern toplumun çöküşünü ve birey üzerindeki anlamsız tahakkümünü açığa çıkarır. Filmde olaylar ardı ardına gelir; ancak klasik bir neden-sonuç zinciri oluşturulmaz. Cinayet, sokağa çıkma yasağı, salgın söylentileri ve sorgulamalar birbirini takip eder, fakat birbirini tamamlayan anlamlı bir bütün oluşturmaz. Bu kopukluk, bireyin modern toplum karşısındaki çaresizliğini ve yabancılaşmasını derinleştirir. Anti-kahraman, kasabaya yabancıdır; orada bulunur fakat asla oranın bir parçası olamaz. Kasabalılar arasında görünür, ama daima dışarıdan biri gibi kalır. Bu durum, bireyin modern toplum karşısındaki köksüzlüğünü ve yerinden edilmişliğini temsil eder.



Görsel 7-8: Mekânın bir yok-yere (non-lieux) dönüşmesi.

Film, bu birbirini takip eden edimlerle gerçek ile hayal arasındaki sınırları siler. Filmde görülen rüya sekansları, kabuslar ve halüsinasyonlar anlatının bütünselliğini parçalamaktadır. Bu yapı, bilincin çözülüşünü ve varoluşsal kaygıyı sinematik bir temsille üretir. Bu da geleneksel anlamda kahramanın olmadığını, yalnızca tanıklık eden ve seyreden bir figürün bulunduğunu gösterir. Film, gerçek ile hayal arasındaki sınırları sildiği için zaman ve mekân kavramları geleneksel anlatıdaki süreklilikten sapar. “Yok-Yerler” adlı kitabında (Auge, 2016)’nın ele aldığı “non-lieux” (yok-yerler, yok-mekânlar) kavramında dediği gibi mekan, dış dünya ile bağlantısını koparmıştır yani, Augé’nin kullandığı haliyle kavram “içinden geçilen, deneyimlenen, ancak benimsenmeyen; mekânı organize eden kişilerin belirlediği yazılı ve yazılı olmayan kurallara uyulan, ancak ziyaretçilerin kendi kişisel kimliklerini tarifleyecek, orada yaşayanlar tarafından bilinen o yere özgü olan yaşanmışlık ve ritüellerin oluşmadığı mekânlar” ifade etmektedir (Arslan, 2009, s. 83). Bu da Benjamin’in tarihsel alegori anlayışında ele aldığı yıkıntı, süreksizlik ve melankoli temalarıyla doğrudan ilişkilidir.

Kasaba böylece de yalnızca fiziksel bir yer değil, aynı zamanda toplumsal çürümenin ve otorite krizinin içselleştirildiği alegorik bir zemin olarak ifade edilir. Bu görüşler doğrultusunda da eyleyen, otorite karşısındaki bireysel eylemsizliği, sistemin düzensizliğini ve toplumsal düzenin çürümüşlüğüne Barthes’ın kodları üzerinden modern bir göstergeler ağına dönüştürür. Bu dönüşüm, Barthes’ın sunduğu kodlar üzerinden olay örgüsünün zayıflamasıyla beraber karakterize edilir: Olaylar nedensel bir zincirle ilerlemez, belirli bir başlangıç ya da sonuç beklentisi oluşturmaz. İzleyici neden sorusunu değil, sürekli nasıl ve ne olacak sorusunu sormaya yönlendirilir. Bu, modern anlatının yapıbozumcu doğasına işaret eder. Film, böylece ideolojik açıdan da, belirli bir ulusal geçmişe veya kolektif kimliğe sabitlenemez. Film temsiliyetin sınırlarını muğlak bırakır ve modern toplumların mekanikleşmiş, duygudan yoksun yapısını, bürokratik irrasyonalizmi ve bireysel yok oluşu alegorik bir biçimde sunar.

Bu noktada, (Moretti, 2021)'nin *“modern alegori bireyin yapısal yabancılaşma koşullarını açığa çıkarır”* önermesiyle tam anlamıyla örtüşür. Film, doğrudan l bürokratik yapıya ve iktidar ilişkilerine göndermeler yapar; ancak bu göndermeler evrensel modern krizleri temsil edecek şekilde genişletilmiştir. Film, böylece belirli bir ulusal hafızanın üretimi yerine, modern toplumların genel çöküşünün sinemasal alegorisine dönüşür.



Görsel 9-10: Delik- Çukur-Obruk.

Sonuç olarak, Tayfun Pirselimoglu'nun *“Kerr”* filminde, ulusal alegorinin sabit ideolojik anlatılarından koparak modern alegorinin çok katmanlı, ertelenmiş ve çözülmemiş anlam yapısını sinemasal düzlemde güçlü bir şekilde işler. Film, absürtlük, irrasyonellik ve tekinsizlik unsurlarını bir araya getirerek bireyin modern toplum içindeki varoluşsal yalnızlığını ve çaresizliğini görünür kılar. Açıklanamayan cinayet, çözüm sunmayan bürokratik işleyiş, sokağa çıkma yasakları ve ardı arkası kesilmeyen sorgulamalar, anlamın sabitlenmesini imkânsız hale getirir. Filmde mekânın 'yok-mekâna' dönüşmesi, karakterin adının dahi verilmeyerek anonim bir figüre indirgenmesi ve zamanın çarpıtılması, bireyin yabancılaşmasını ve toplumsal yapılarla olan kopuk ilişkisini modern alegorik bir düzlemde temsil eder. Film, belirli bir ulusal hafıza üretme çabasından ziyade, evrensel bir modernlik krizinin alegorisini sunar. Toplumsal çürümenin, otorite boşluğunun ve bireysel çaresizliğin sinemasal bir temsili olarak, modern toplumların genel yapısal çözülmesine işaret eder. Bu yönüyle film, yalnızca bir bireyin hikâyesini değil, modern insanın varoluşsal bunalımını ve çağdaş dünyanın ideolojik boşluklarını alegorik bir düzlemde irdeleyen önemli bir yapıt olarak değerlendirilebilir. Böylece, Paul de Man'ın sürekli ertelenen anlam anlayışı ve Walter Benjamin'in tarihsel parçalanmışlık kavrayışı film boyunca hissedilir bir yapısallık kazanır. Bu yapı da hem Barthes'ın göstergebilimsel kodları hem de Moretti'nin modern alegori kavramları doğrultusunda, bireyin yapısal yabancılaşma koşullarını açığa çıkarır.

Sonuç

Bu çalışma, alegori kavramına getirilen iki farklı yaklaşımı sunmayı; Fredric Jameson'ın ulusal alegori anlayışı ile Paul de Man, Walter Benjamin ve Franco Moretti'nin geliştirdiği modern alegori yaklaşımlarını sinemasal anlatının dinamikleri üzerinden tartışmayı amaçlamaktadır. Kuramsal düzlemde, alegorinin anlam üretimindeki değişken doğası; tarihsel bağlamda sabitlenmiş kolektif kimlik temsillerinden, bireysel yabancılaşmayı merkeze alan modern anlatı yapılarına geçiş süreci çerçevesinde değerlendirilmiştir. Bu teorik çerçeve içerisinde, Tayfun Pirselimoglu'nun *“Yol Kenarı”* ve *“Kerr”* filmleri özgün örnekler olarak incelenmiştir.

Her iki film de alegorik anlatı biçimleri üzerinden toplumsal yapının çözülüşünü işlerken, temsil ettikleri alegori türleri bakımından önemli farklılıklar gösterir. “*Yol Kenarı*” filmi, Jameson’ın ulusal alegori yaklaşımına dair sabit ideolojik kodlarıyla kolektif hafızayı temsil ederken; “*Kerr*” filmi, modern alegorinin parçalı, ertelenen ve çözümsüz anlam yapısını güçlü bir sinemasal dil ile görünür kılmıştır. Bu karşıtlık, Pirselimioğlu sinemasında alegorinin dönüşümüne dair önemli ipuçları vermektedir. Film analizlerinde Barthes’ın göstergebilimsel kodları, anlatının anlamsal katmanlarını açmada etkili bir yöntem olarak kullanılmış ve filmlerin anlatı yapısındaki ideolojik ve estetik çözümleri açığa çıkarmada merkezî bir rol oynamıştır. Sonuç olarak, bu çalışma hem ulusal hem de modern alegori kavramsallaştırmaları arasındaki kuramsal ayrımı sinema üzerinden görünür kılmış, hem de göstergebilimsel çözümleme yöntemleriyle sinemada alegorik anlatının farklılaşan işleyiş biçimlerini akademik bir düzlemde tartışarak literatüre özgün bir katkı sunmayı amaçlamıştır.

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New Technologies and Terrorist Organizations: The Experience and Challenges of the Albanian Government in Fighting Terrorism

Gledis Nano

PhD Candidate, Department of Criminal Law, Faculty of Law, University of Tirana, University of Tirana, Albania

Abstract

This paper aims to examine the development and evolution of terrorist organizations in the light of the development of new technologies in Albania. With the development of new technologies, the nature of terrorism has been transformed through the use of new technologies and techniques by terrorist groups. Due to this evolution, the fight against this phenomenon has become increasingly complicated and sophisticated. The study is based on a review of existing literature on the development of terrorist organizations and the relationship with new technologies, with a specific reference to the role of the Albanian government in fighting international terrorism. This paper argues that although the use of intelligence and technology has offered new opportunities for preventing terrorist attacks, Albania continues to face new hybrid threats. In this context, Albania should orient its policy towards strengthening international cooperation and using coordinated strategies.

Keywords: terrorism, hybrid threats, security, Albania, new technologies

1. Introduction

This paper aims to examine the development and evolution of terrorist organizations in light of the development of new technologies in Albania. With the development of new technologies, terrorist groups have transformed the nature of terrorism through the use of new technologies and techniques. Due to this evolution, the fight against this phenomenon has become increasingly complicated and sophisticated.

This paper argues that although the use of intelligence and technology has offered new opportunities for preventing terrorist attacks, Albania continues to face new hybrid threats. In this context, Albania should orient its policy towards strengthening international cooperation and using coordinated strategies.

The study is based on a review of existing literature on the development of terrorist organizations and the relationship with new technologies, with a specific reference to the role of the Albanian government in fighting international terrorism.

This paper consists of this introduction and four sections. The second section explores a brief overview of the main terrorist religious organizations and how they use technology for communication, networking, and operation. The third section discusses the emergence of religious terrorist organizations in Albania and Albanian engagement in terrorist organizations. The fourth section discusses the efforts of Albanian law enforcement in fighting and preventing terrorist attacks in Albania. This paper concludes that although the use of intelligence and technology has offered new opportunities for preventing terrorist attacks, Albania continues to face new hybrid threats. In this context, Albania should orient its policy towards strengthening international cooperation and using coordinated strategies.

2. Terrorist Organizations and New Technologies

Terrorism remains a persistent global threat, with an ever-increasing geographical reach. The number of terrorist attacks has increased. By the end of 2024, 66 states had experienced at least one terrorist incident (Institute for Economics and Peace, 2025a: 4). Furthermore, the data from the 2025 Global Terrorism Index shows that the threat situation from terrorism in many countries has worsened for the first time in seven years. 45 states have reported a greater impact from terrorism, while only 34 countries have reported an improvement from the terrorist attacks (Institute for Economics and Peace, 2025a: 4). The Sahel region (border areas of Mali, Niger and Burkina Faso) remains the global epicenter of terrorism, experiencing over half of all terrorism-related deaths in 2024.

In Europe, terrorist attacks have increased from 28 in 2022 to 120 in 2023 (EUROPOL and EU, 2024: 11). These numbers include completed, failed or foiled terrorist attacks by jihadists, right wings, left wings, anarchists, ethno-nationalists, separatists and others. Compared to 6 terrorist attacks that occurred in 2022, in 2023, fourteen jihadist terrorist attacks took place in the EU. Five terrorist attacks were completed, and nine were foiled. This represents an increase compared to 2022 (6). The five completed attacks took place in France (2), Belgium (1), Germany (1), and Spain (1), resulting in twelve injured and six killed (EUROPOL and EU, 2024: 20).

While the number of terrorist attacks is increasing, terrorist organizations are expanding their activities in other countries and becoming more aggressive. The four main terrorist organizations in 2024 are IS, Jama'at Nusrat al-Islam wal-Muslimin (JNIM), Tehrik-e-Taliban Pakistan (TTP), and al-Shabaab (Institute for Economics and Peace, 2025a: 11). In 2023, these terrorist organizations operated in 29 countries, whereas in 2024, they operated in 30 countries (Institute for Economics and Peace, 2025a: 11). On the other hand, as the biggest terrorist organization, their terrorist activity increased by 11%, with 4,204 deaths attributed to 2024 (Institute for Economics and Peace, 2025a: 14).

The Islamic State (IS), founded in 1999 as an Al-Qaeda in Iraq and Syria, operates globally as a decentralized network of independent jihadist groups. In 2024, IS have expanded its operation in 23 countries and is responsible for 1,805 deaths (Institute for Economics and Peace, 2025b). Jama'at Nusrat al-Islam wal-Muslimin (JNIM) was founded in 2017 and operates only in the Sahel region. In 2024, JNIM recorded an increase in terrorist attacks, resulting in 1,022 deaths (Vision of Humanity, 2025). Tehrik-e-Taliban Pakistan has emerged as one of the fastest-growing terrorist groups. For 2024, TTP is responsible for 558 deaths, which is a 90% increase in deaths compared with the previous year. Al-Shabaab operates in Somalia and is the "most

dangerous militant organization, responsible for 96% of terrorist attacks in the country" (Vision of Humanity, 2025). The group's overall activity has declined recently. However, Al-Shabaab is responsible for more than 400 deaths, including the suicide bomber targeting a queue of young recruits registering at the Damanyo military base in Mogadishu (Reuters, 2025).

With the development of technology, terrorist organizations have adopted innovation to achieve their objectives. The 2023 Global Terrorism Index suggests that around 65 non-state violent actors can deploy drones because they are so "easily accessible in public marketplaces" and easy to use, as the use of drones does not require specialized training (Institute for Economics and Peace, 2023). Whereas, the National Intelligence Council, in its Global Trends 2040 report, forecasts that "technological advances, including AI, biotechnology, and the Internet of Things, may offer opportunities for terrorists to conduct high-profile attacks by developing new, more remote attack methods and to collaborate across borders." The report elaborates further that:

"Terrorists will also seek weapons of mass destruction and other weapons and approaches that will allow them to conduct spectacular mass casualty attacks [...]. Autonomous delivery vehicles guided with the help of AI systems could enable a single terrorist to strike dozens of targets in the same incident. Augmented reality environments could also enable virtual terrorist training camps, connecting experienced plotters protected by distant sanctuaries with potential operatives" (NIC, 2021).

In addition, almost all active terrorist organizations use one or several websites in different languages and are very active in social media for different purposes, such as: i) psychological warfare; ii) publicity and propaganda; iii) data mining; iv) fundraising; v) recruitment and mobilization; vi) networking; vii) sharing information and viii) planning and coordination (UNICRI, 2020; Zeiger and Gyte, 2021; Lieberman, 2017: 9:95; Hossain, 2018). For instance, the investigation of the 9/11 terrorist attacks revealed the use of encrypted messages containing information on the targets and detailed planning of the attack. Furthermore, both Al-Qaeda and the Islamic State, including ISK (Islamic State Khorasan Province), produce content ranging from high-quality online magazines to AI-enhanced videos, including news programs. This enables the rapid production of what is considered high-quality propaganda, recruitment, incitement and radicalization (UNODC, 2012: 4-6). Also, social media such as Facebook, TikTok, Twitter, and YouTube have an important role in the radicalization process of individuals. Encrypted messaging apps (Telegram and Rocket) have provided extremists with secure channels for organization and communication. These platforms offer private, invite-only spaces. As noted by the 2025 Global Terrorism Index, "the DARK WEB provides a hub for illicit activities and ideological exchanges, further amplifying exposure and the risks of radicalization" (p. 3). In conclusion, the internet has become the main source of radicalization, recruitment, communication and operation of terrorist organizations.

With the development of AI, a new toolbox instrument is in the hands of terrorist organizations. Scholars have raised concerns about the future use of AI in terrorist attacks (Esmailzadeh, 2023; Stalinsky, 2023). In 2021, the United Nations Office of Counter-Terrorism warned that "As soon as AI becomes more widespread,

the barriers to entry will be lowered by reducing the skills and technical expertise needed to employ it. AI will become an instrument in the toolbox of terrorism") UNOCT, UNCCT and UNICRI, 2021: 7). Already on December 2022, a frequent user of an ISIS-operated Rocket.Chat server posted that "he had used the free ChatGPT AI software for advice on supporting the caliphate" (MEMRI, 2022). According to the user, the AI replied with a series of operational steps. The user claimed that the information on how to establish the caliphate were original and "smarter than most activists" (MEMRI, 2022). Furthermore, AI is used to improve phishing emails, plant malware in open-coding libraries, spread disinformation, and create online propaganda (Europol Innovation Lab, 2023: 8-10).

3. The emergence of a religious terrorist organization in Albania

After the fall of the communist regime in the early 1990s, Albania underwent profound reform, including introducing legislation to protect human rights, liberalizing the economy, and reforming the judiciary. As Albania was an opportunity for foreign investors, many terrorist organizations exploited its socio-economic, cultural, and political deficiencies. Moreover, due to political regime changes, Albania had weak border security to control. This instability provided the opportunity for many foreign Islamic associations to have a presence in Albania, whose aim was associated with extremist/terrorist groups linked to Al Qaeda (Woehrel, 2006: 6-7).

From the early 1990s to 1998, foreign Islamic associations such as "Al Haramain", "Ringallja e Terashëgimisë Islame", and "Wakf Al Islamiya" have operated in Albania. Their legal activity was for humanitarian purposes in a country which has suffered the harshest communist regime. But their true activity was spreading propaganda and establishing a terrorist network. As a result of a joint action carried out by coordinating the information provided by the Albanian Intelligence Agency (SHISH) and the executive powers of the state police, in 1998, the illegal activity of these associations was shut down. This joint operation prevented further development of religious-based terrorist/extremist activity in Albania.

In addition to the foreign Islamic associations, domestic actors have played an important role in radicalizing society. From the mid-to-late 1990s, the first generation of theologians educated mainly in the Middle East returned to Albania. These theologians preached a religious doctrine that contradicted the traditional stream of moderate Islam. Such divisions led to the creation of certain religious ideologies, such as the Salafi, Wahhabi, and Muslim Brotherhood.

The main target group in "planting" radical Islamic ideologies was young people, mainly from rural areas. At that time, Albania had socio-economic, cultural, and political deficiencies. These humanitarian religious associations established madrassa and provided free education and scholarships, including religious education, which gradually led to the radicalization of the youth. In addition, families with low income were supported financially. The financial support given led to the self-distancing and the establishment of mosques to pray outside the jurisdiction of the Albanian Muslim Community (KMSH). These mosques became the epicenter of the radicalization in Albania.⁷²

⁷² Among these cult objects we mention the Unaza se Re and Mëzezi mosques in Tirana, the Leshnica mosque in Pogradec, etc.

During 2010-2011, Middle Eastern countries experienced the Arab Spring, which dramatically shook the region's political landscape. Protests in many countries led either to the overthrow of their dictators or to the introduction of several domestic reforms (Khan, 2014; Kitchen, 2012; Khalfan, 2021); Rózsa, 2013). This period coincided with the establishment of the terrorist organization Islamic State of Iraq and Ash-Sham/Syria (ISIS) (Oosterveld and Bloem, 2017; Speckhard and Ellenberg, 2020; Mironova, 2019).

The ISIS establishment had an echo in Albania, where the level of indoctrination for certain groups of followers began to increase significantly, strengthening their conviction and encouraging them to support violent extremism, as well as support for jihad in Syria and later in Iraq. These religious ideologies of violent extremism and jihad in Albania peaked in 2012-2013, when the departure of Albanian citizens towards Iraq and Syria began, to join Al Qaeda in Syria and ISIS. According to official data, it is estimated that around 157 to 163 Albanian citizens travelled to join the conflict in Iraq and Syria during 2012-2015 (Counter Extremism Project, 2021).

The Albanian government has repatriated 37 Albanian citizens from the Al-Hawl and Roj camps in Syria. 45 Albanian citizens voluntarily returned before adopting the law in 2014, which criminalizes participation in armed conflicts. As of now, around 35 to 45 Albanian citizens are in Syria, of whom nine may still be in prisons run by the Syrian Democratic Forces (Counter Extremism Project, 2021). Moreover, radicalization in prisons remains a concern and a long-term challenge, given the possibility of the return of Foreign Terrorist Fighters (FTFs) and their families.

4. Albanian Law Enforcement Response in fighting and preventing Terrorist Organizations.

To prevent further deterioration of the situation, Albanian law enforcement institutions reacted quickly. The Anti-Terror Units of both the Albanian Intelligence Service (SHISH) and the State Police (ASP) cooperated with other institutions and coordinated their action in providing the necessary information. This cooperation was quite successful, both in terms of information collection and in avoiding overlapping tasks and work of each structure. In addition, a coordinator was situated between Intelligence and the State Police. The main responsibility was to exchange the information in real time and prevent Albanian citizens from seeking to leave the country to join extremist groups in Iraq or Syria for jihad.

As a result of this cooperation between the Anti-Terror Directorate at the Albanian Intelligence Service and the State Police, in March 2014, one of the most successful operations (in the region) was finalized with the arrest of "proclaimed imams" and individuals who propagandized, incited, facilitated and financed Albanian citizens to participate in armed conflict abroad, namely in Syria/Iraq.

This operation was successful and further developed the fight against terrorist organizations in Albania. First, it prevented further radicalization of members who support the extremist ideology of ISIS, prevented Albanian nationals from travelling to conflict zones and joining terrorist groups and sentenced the responsible persons. Second, this operation highlighted the need for cooperation between the Albanian Intelligence Service and the State Police. During this operation, 9 individuals were

arrested and sentenced to 126 years in prison. 4 other individuals are still wanted on terrorism charges. Therefore, in 2015, a memorandum of cooperation between the two institutions was signed.

Another successful operation between the anti-terror structures is the prevention of a terrorist attack planned to be carried out during the soccer match between Albania and Israel in November 2016. Upon the information received by the Albanian Security Community, the anti-terror structures at the Albanian Intelligence Service and the State Police detained and arrested Albanian and Kosovar citizens identified as the main organizers of this conspiracy. Due to these measures, the terrorist plot was foiled.

With the development of technology and the widespread use of social media, terrorist propaganda and hatred became present in Albania as well. On 25 June 2020, the Albanian Police arrested a 39-year-old man in Koxhaj for using social media to call for the killing of Israelis (Euronews, 2020). The suspect was followed by a months-long investigation launched by Albania's Anti-Terror Directorate and charged with terrorism offences and hate crimes, specifically the "Incitement, public call, and propaganda for committing acts of terrorist intent." The process is still ongoing.

Albania is increasingly becoming a target of state-sponsored entities using commercial tech platforms as proxies for surveillance and influence (Hajdari, 2025). Recently, Albania experienced a cyber-attack and digital espionage. All Albanian citizens' personal IDs, bank accounts, car plates, internal police communications, and Albanian Secret Service contacts were leaked to a Telegram channel (Pashaj, Tomço and Gjika, 2025); Codreanu, 2024). The exposure of such data to the public revealed the weakness of Albanian state agencies in protecting Albanian personal data.

The recent Smart City surveillance proposal has raised several concerns. According to the media, the contractor is a foreign tech company. There is no public information on whether this foreign tech company has been vetted. Moreover, it is questionable whether countries like Albania, which have weak data protection laws or low digital security cultures, implement such projects. The lack of strong legislation might lead to the misuse of surveillance, disinformation, radicalization, and cyber intrusion.

Despite the positive operations in fighting terrorist organizations, the Albanian law enforcement agencies face the following challenges at the national level.

The first challenge relates to the repatriation of Albanian citizens who went to Iraq and Syria. So far, 83 persons have been returned, and Albanian law enforcement institutions have ensured the necessary rehabilitation measures. On the other hand, some individuals need to be criminally prosecuted.

The second challenge relates to the identification of new extremist elements and monitoring the descendants of individuals convicted of terrorism, who may attempt to take revenge on Albanian institutions, facilities of strategic partners or allied countries.

The third challenge relates to monitoring the flow of illegal refugees from countries in the Middle East and North Africa, among whom may be camouflaged former members or operatives of extremist militant groups from the conflict zone in the Middle East.

The fourth challenge concerns monitoring cyberspace used for propaganda, brainwashing, incitement and recruitment of new elements who can/do operate as lone actors for terrorist purposes.

The fifth challenge relates to the radicalization of prisoners, their monitoring and the efforts to de-radicalize and rehabilitate.

Finally, the anti-terror structures need to conduct external operations to counter, strike and disrupt the extremist activity of members/leaders of terrorist organizations such as ISIS and Al Qaeda.

5. Conclusion

The paper shows a significant increase in the capacity and global reach of terrorist organizations, signaling a new phase of terrorist threats. Criminal activities have become sophisticated with the use of technology and digitalization, which are playing an increasingly important role in the spread of radicalization and propaganda. The increase in capacities and the change in current strategies of two of the most dangerous terrorist organizations in the world, the Islamic State (IS) and Jamaat Nusrat al-Islam wal-Muslimeen (JNIM), show us that terrorism is evolving into increasingly sophisticated forms, adapted to local contexts. Both groups show a clear trend in their global approach that targets civilians through the use of local context and modern technologies. Such dynamics tell us that terrorist acts are evolving in forms that are more difficult to neutralize in traditional ways. At the same time, the Western Balkans represent an interesting avenue for terrorist organizations, due to their historical background, ethnic diversity, social inequalities and institutional weakness. The involvement of individuals from the Balkans and especially Albania in ISIS cells suggests a reactivation of radicalized elements in the region, potentially turning it into a transit, recruitment and logistical point for the wider ISIS network in Europe.

Furthermore, the increasing use of social media to recruit young people – especially teenagers – followed by the use of digital propaganda methods by terrorist organizations, reflects a clear development in the group's tactics and strategy, which is shifting the focus towards more sophisticated forms of radicalization. The active involvement of teenagers in tactical planning of attacks, involving weapons, explosives and clear operational knowledge, is particularly worrying. This phenomenon highlights the fact that these young people are not simply victims of radicalization, but have become active parts of a larger network that operates as a terrorist "virtual ecosystem". These trends show us that terrorism does not simply pose a constant threat to Europe, but also highlights the need for a more coordinated approach at the international level.

In conclusion, the paper argues that although the use of intelligence and technology has offered new opportunities for preventing terrorist attacks, Albania continues to face new hybrid threats. In this context, Albania should orient its policy towards strengthening international cooperation and using coordinated strategies

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“The Terror of the Beautiful”: TikTok Aesthetics and the Performance Regime of the Youth Body

Güzelin Terörü”: TikTok Estetiği ve Genç Bedenin Performans Rejimi

Asst. Prof. Dr. Dursun Can Şimşek

Avrasya University, Türkiye

Abstract

This study analyzes the visibility strategies of young TikTok users through the lens of Byung-Chul Han’s concept of *kalocracy*—the rule of beauty. On TikTok, content creation is no longer limited to creativity or entertainment; it has transformed into a struggle to conform to aesthetic norms, body politics, and algorithmic regimes of visibility. Filters, body presentation styles, and performative elements such as dancing are not only acts of expression, but also attempts to generate value within a platform-driven beauty economy.

The research focuses on TikTok content produced by users aged 15 to 25, employing qualitative discourse and visual analysis. Findings indicate that young users optimize their bodily appearances according to digital aesthetic standards, aiming to achieve both social acceptance and algorithmic rewards. In this context, the body functions as a form of capital, and visibility becomes a new labor regime based on performance. TikTok emerges as a digital space where “the beautiful” becomes a mechanism of control, transforming aesthetics into a force that excludes ethical and political dimensions of self-expression.

Ultimately, the study reveals how TikTok aestheticizes the body into a site of performative labor, reinforcing neoliberal norms of optimization, exposure, and algorithmic conformity.

Keywords: Kalocracy, TikTok aesthetics, Body politics, Social media, Digital performance

Özet

Bu çalışma, Byung-Chul Han’ın *kalokrasi* (güzellik iktidarı) kavramı üzerinden TikTok platformunda genç kullanıcıların görünürlük stratejilerini analiz etmektedir. TikTok’ta içerik üretimi, yalnızca eğlence ya da yaratıcılık değil; aynı zamanda estetik normlara, beden politikalarına ve algoritmik görünürlük rejimlerine uyum sağlama mücadelesine dönüşmüştür. Özellikle genç bireylerin kullandığı filtreler, bedenlerini sergileme biçimleri ve dans gibi performatif öğeler, platformun dayattığı “güzellik estetiği”ne boyun eğmekle kalmayıp, aynı zamanda bu estetik içinde değer üretme çabasını da ortaya koymaktadır.

Çalışmada 15–25 yaş arası TikTok kullanıcılarının içerikleri niteliksel söylem ve görsel analiz yoluyla incelenmiştir. Bulgular, genç kullanıcıların dijital estetik normlara göre şekillendirdikleri bedenlerini, hem toplumsal kabul hem de algoritmik

ödüller için optimize ettiklerini göstermektedir. Bu durum, bedenin dijital ekonomide bir sermaye biçimi olarak işlev kazandığını ve görünürlüğüne performansla bağlı yeni bir emek rejimi doğurduğunu ortaya koymaktadır. TikTok, bu bağlamda, “güzel”in bir baskı aracı haline geldiği, estetiğin etik ve politik boyutlarını dışlayan bir dijital iktidar alanına dönüşmektedir.

Anahtar Kelimeler: Kalokrasi, TikTok estetiği, Beden politikaları, Sosyal medya, Dijital performans

Perceptions and Realities of Gendered Political Discourse in Albania

Dr. Lec. Anila Hima

Faculty of Humanities, Department of Foreign Languages, University of Vlore "Ismail Qemali", Albania

Dr. Lec. Bukuroshe Isufaj

Faculty of Humanities, Department of Foreign Languages, University of Vlore "Ismail Qemali", Albania

Abstract

This paper presents a sociolinguistic study on gender-based variation in Albanian political discourse. It seeks to explore whether such differences exist, how they manifest in linguistic style and how they are perceived by the Albanian public. The study employs a mixed-methods approach, combining a sociolinguistic survey with a textual analysis of political speech delivered in the Albanian Parliament. Survey data were collected from 100 respondents, who evaluated excerpts from parliamentary speeches to determine whether stylistic features reflected a male or female speaking style. In parallel, a corpus of 44 parliamentary speeches (22 by female MPs and 22 by male MPs) was examined to identify stylistic markers associated with gendered discourse. Findings suggest a widespread public perception that gender differences in political discourse do exist, although textual analysis reveals a more complex and varied picture that challenges the traditional male/female dichotomy. This research contributes to the broader sociolinguistic literature by providing empirical insights into the interplay between language, gender and political identity in an under-researched linguistic context such as Albania.

Keywords: gendered discourse, political communication, linguistic style, Albania, gender stereotypes.

INTRODUCTION

The way men and women speak has long been a subject of both popular speculation and academic inquiry. From everyday conversations to media portrayals and institutional settings, gendered language use is often framed through a lens of stereotypical assumptions. These stereotypes about male and female discourse not only shape our perceptions of men and women but also reflect and reinforce societal expectations about gendered behaviour (Romaine, 1999; Sunderland, 2006). Language,

in this context, becomes both a medium of communication and a mechanism of social categorization (Lakoff, 1975).

Such distinctions are particularly salient in domains where male dominance has historically been the norm—politics, law, academia and science—while spheres related to caregiving and child-rearing have been traditionally feminized (Coates, 2013). This gendered division of social roles has often extended to the ways in which men and women are expected to speak and act. Although significant progress has been made in the last few decades, the enduring nature of these expectations continues to influence public discourse and professional communication (Crawford, 1995).

The late twentieth and early twenty-first centuries have witnessed profound transformations in gender roles and identities, including the gradual integration of women into leadership positions across political and institutional landscapes. This has led to greater visibility of women in public discourse and has sparked increased academic attention to how gender operates in language use. Cameron (1998) argues that the growing presence of women in previously male-dominated arenas has exposed deeply entrenched patriarchal structures and challenged the assumptions that professional communication is gender-neutral. Similarly, Wodak (2015) highlights how women politicians are often evaluated not only on what they say but how they say it, reinforcing gendered norms of authority and competence.

In Albania, the participation of women in politics has followed a slow but steady trajectory. During the tenth legislature (2021–2025) of the Albanian Parliament, a notable number of female members of Parliament (MPs) had professional backgrounds in law, economics, education, medicine, and the arts. According to official statistics from the Albanian Assembly, the number of female MPs has risen from just 10 in 1991 to 47 in the recent legislature, out of a total of 140 parliamentary seats, comprising 33.6% of Albanian MPs (Albanian Assembly, 2021).⁷³ While this marks progress, the pace of change remains limited, highlighting the structural and cultural barriers that continue to hinder gender parity in political representation (UN Women, 2022).⁷⁴

LITERATURE REVIEW

As women's public participation has increased in the last centuries, so has the interest in how gender influences communicative practices in professional settings. Scholars have explored gendered communication styles using various theoretical frameworks, often grounded in a binary conception of gender. One influential model is that of Holmes and Stubbe (2003), who identify a set of widely recognized features attributed to male and female interactional styles.

⁷³ <https://www.parlament.al/deputet> accessed in January 2025.

⁷⁴ UN Women. (2022). Women in Politics: Eastern Europe and Central Asia [Regional Report] accessed in January 2025

Table 1. The model of recognized features attributed to male and female interactional styles based on Holmes & Stubbe (2003)

FEMININE STYLE	MASCULINE STYLE
Indirect	Direct
Communication is subtle, implied and often less assertive.	Communication is clear, straightforward and to the point.
Conciliatory	Confrontational
Aims to reduce tension and maintain harmony.	Tends to challenge or assert in conflicts, sometimes aggressively.
Facilitative	Competitive
Encourages collaboration and cooperation.	Focuses on individual success and outpacing others.
Collaborative	Autonomous
Works together to achieve shared goals.	Values independence and individual decision-making.
Minimal Public Contribution	Dominant in Public Discourse
Often listens, supports and does not take a dominant role in public discussions.	Frequently takes center stage in discussions and debates.
Supportive of Interlocutor	Aggressively Interrupting
Shows empathy and ensures others feel heard.	Interrupts or cuts others off to assert dominance.
Person/Process-Oriented	Outcome/Result-Oriented
Focuses on relationships and how things are done, not just the result.	Focuses on achieving tangible results, often without regard for process.
Emotion-Based	Reference-Based
Emotions are central to communication and decision-making.	Prioritizes facts, data and external references over emotions.

Although Holmes and Stubbe caution that these features should not be treated as rigid or universally applicable, they serve as useful heuristics for analyzing communicative behavior across genders in professional and institutional contexts. Such frameworks help reveal not only the linguistic differences between men and

women but also the broader social meanings attached to those differences (Baxter, 2010).

Other scholars have contributed complementary insights. Tannen (1994), for example, observes that expressions of politeness and gratitude tend to be more frequent in what is perceived as a feminine style, whereas teasing and competitiveness are more commonly associated with male discourse. These tendencies, while not deterministic, suggest culturally embedded patterns of language use that reflect socialized gender roles (Mills, 2003). Research by Kitzinger and Frith (1999) also illustrates how conversational norms around turn-taking, interruptions, and silences can carry different social meanings depending on the speaker's gender.

Eckert and McConnell-Ginet (1995) offer a critical departure from binary models by emphasizing the diversity and fluidity of gendered discourse. They argue that what is commonly labeled as "masculine" or "feminine" language encompasses a wide range of styles, performances and identities. Rather than viewing gendered communication as fixed and dichotomous, they advocate for a more nuanced approach that accounts for intersectionality, social context and individual agency. This aligns with Butler's (1990) theory of performativity, which sees gender not as a static identity but as something continuously enacted through language and behaviour.

Taken together, these perspectives challenge us to rethink how gendered language operates—not only as a mirror of existing social structures but also as a potential site of resistance and change. In contexts such as political discourse, where language plays a central role in shaping public perception and asserting authority, examining the gendered dimensions of communication becomes particularly relevant (Shaw, 2006).

This study investigates the intersection of gender and political language in the Albanian context, focusing on both public perceptions and observable linguistic practices. It seeks to understand how gendered expectations shape the communicative strategies of political actors—particularly women—and whether these align with or diverge from established gendered language patterns. Using a mixed-methods approach that combines survey data with textual analysis of parliamentary discourse, the study aims to reveal the nuanced ways in which language functions as both a site of gendered performance and a potential tool for challenging entrenched norms.

OBJECTIVE AND METHODOLOGY OF THE STUDY

The purpose of this study is to discover, first, how a sample of the Albanian public perceives the communication styles of male and female politicians, and second, to analyze the speeches of politicians themselves to see if these perceptions are supported by the language the politicians actually use, to reveal the effect of gender stereotypes on the conception of identity. The research specifically aims to answer the following questions:

1. What do respondents think about the existence of gender differences in political discourse?
2. To what extent can respondents identify, based on selected excerpts of parliamentary speech, whether the speaker is a male or female politician?
3. What linguistic features do respondents identify as gender markers, as typical of the masculine/feminine style in excerpts from political speeches?
4. Does the gender of the respondents themselves influence their perceptions?
5. Do the conclusions drawn from the survey data correspond to those obtained through textual analysis?

To answer these questions, a mixed-methods approach was employed, combining quantitative and qualitative techniques. To examine the respondents' perceptions a sociolinguistic survey was used, and to validate these perceptions, a corpus-based textual analysis was carried out, to investigate the real differences in political discourse. By combining survey data with empirical linguistic analysis, this study offers a more comprehensive understanding of gendered communication in Albanian politics.

DESCRIPTION AND FINDINGS OF THE SURVEY

The sociolinguistic survey was designed to capture the public perceptions regarding the gendered political discourse. This survey not only aimed at identifying the extent to which the respondents could distinguish gender based on language, but also to highlight specific words or expressions from the given excerpts that influenced their choices. Respondents were encouraged to comment on the reasons behind their gender attributions, thus providing qualitative insights into the linguistic markers they associated with male and female political speech.

The survey was conducted with 100 Albanian respondents (59 female and 51 male). The respondents' native language is Albanian and their age ranged from 18 to 45 years of age. The survey was designed in two parts.

PART ONE OF THE SURVEY

In the first part, the respondents were asked to express their opinions on gender differences in political discourse, and second, to comment on their answers.

- *In your opinion 'Do Albanian male and female MPs speak the same?'*
 - *Yes*
 - *No*
 - *I don't know*

The results are summarized in Table 2. A majority of respondents of both genders (47%) expressed their belief in the existence of differences in the way Albanian male and female MPs use language. A small percentage of respondents (19%) considered the communication styles of both genders to be the same, while 34%

of them did not provide any answer to this question. The distribution of responses from male and female participants was roughly equal, indicating that the gender of the respondents did not significantly influence their perceptions regarding the language used by politicians.

Table 2. Responses to the question "Do Albanian male and female MPs speak the same?"

Responses	Male Respondents (%)	Female Respondents (%)	Total (%)
Politicians use language differently by gender	45	49	47
Politicians use language in the same way	22	16	19
No answer	33	35	34

The respondents were also asked to comment on the reasons for their answers. Those who believed there are no differences in political discourse between male and female politicians often attributed linguistic variation to other factors such as education level or communication skills. They believed that nowadays, with the successful integration of women into leadership positions, both women and men have the similar speech styles because they fulfill the same political and leadership functions.

Among respondents who acknowledged the existence of gender-specific linguistic styles, a variety of features were identified. Most described female politicians' speech as more polite and diplomatic, aimed at avoiding conflict, while male politicians were characterized linguistically as more direct, precise, critical, ironic and more prone to sarcasm. However, they did not exclude cases when female politicians use aggressive, offensive and inappropriate language. Some even stated that the language used by politicians, regardless of gender, tends to be equally incomprehensible or unclear to the public.

Among the reasons cited for answering *I don't know* to the first question, respondents mentioned a lack of interest in politics or in the manner in which politicians speak.

PART TWO OF THE SURVEY

For the second part of the survey, ten excerpts (~ 200 words each) were selected. They were extracted from the transcripts of ten political speeches delivered by five female and five male MPs in different plenary sessions of the Albanian

Parliament.⁷⁵ The selected excerpts of the speeches purposely did not contain any clues about the politician's gender.

The respondents were asked to determine the gender of MPs based on the given fragments from parliamentary speeches, by underlining the option '*Female*' or '*Male*'.

- *After reading the excerpts from political speeches, determine the gender of the author of the speech, by checking the option 'Female' or 'Male'.*

☐ *Female* ☐ *Male*

Figure 1 illustrates the overall success rate of correctly identifying gender for each of the ten MPs. The responses of male and female respondents for each politician are expressed separately within this figure.

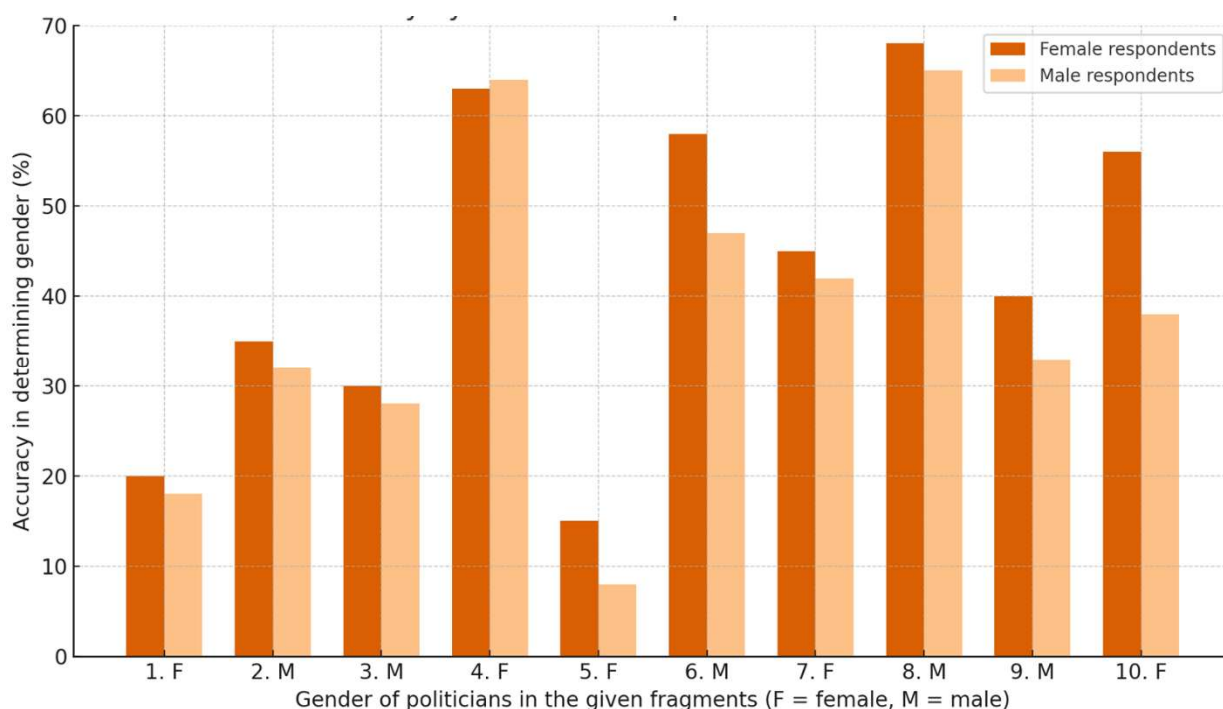


Figure 1. Percentage of gender identifications for each of the ten MPs (F – female MP, M – male MP) by male and female respondents

The survey findings show that incorrect gender identifications (56%) outnumber correct ones (44%) across all respondents, with similar patterns for both male and female participants. As seen in the figure, the accuracy of gender identification varies across the ten speech fragments provided. The responses of female and male respondents, calculated separately, show a slight difference, where the average of incorrect gender identification of politicians by female informants is 60% and by male informants 52%.

⁷⁵ http://www.parlament.al/web/Procesverbale_15614_1.php accessed in October 2024.

Since the respondents were required to underline gender-specific words/phrases in the given excerpts, which helped them during the gender identification process, and then provide a comment on their choices, it became possible to shed light on the possible motives for this distribution of results.

For example, the correct identification of the fourth female politician, in figure 1, by both female and male respondents was made, according to the respondents' own responses, based on the use of polite language forms, such as: *"I invite you", "Therefore, we reiterate this proposal, inviting you to remove it, to zero VAT on health services and medications"*.⁷⁶

Correct responses also dominated the sixth and eighth excerpts, which had two male politicians as authors. As a reason for identifying the gender as male, the respondents had underlined the tone of mockery and humor: *"Mr. Prime Minister, coward, who throws a tantrum in Parliament and runs away, lying to the Albanians"*, and expressions of irony: *"We will make you a millionaire, by retiring you and with that pension you will receive, you will be able to increase your income, as you have stated", "Doesn't Lazarati deserve to be offered coffee by officials of the current government, and then you can smoke a locally produced cigarette"*.

The respondents generally agreed with some of the widely cited characteristics of interactional styles by Holmes and Stubbe (2003). However, the perception strategy did not always lead to accurate identification by the respondents. For example, the author of the fifth excerpt was incorrectly identified as male due to the use of insulting and degrading words: *"When the fly did not find any flower to pose on, it ended up in the dung, ... you will also have the end of the fly"*, which were perceived as masculine by the respondents.

DESCRIPTION AND FINDINGS OF THE TEXTUAL ANALYSIS

To complement and verify the findings from the sociolinguistic survey, a corpus-based textual analysis was conducted. This involved the selection of 44 speeches (22 by randomly chosen female MPs and 22 by randomly chosen male MPs) delivered during plenary sessions in 2024. These speeches were sourced from the official transcripts published on the Albanian Parliament's website.⁷⁷

The textual analysis aimed at testing the stereotypical expressions identified by respondents as gender-specific, thus serving primarily as a tool to corroborate the sociolinguistic survey. This methodological triangulation strengthens the study's validity by juxtaposing subjective perceptions with objective linguistic data.

Only the stylistic features of male and female politicians' speech recognized by respondents were examined. They could be classified into four groups: (1) politeness; (2) personal phrases; (3) obscene impolite vocabulary; (4) irony.

In our corpus, female politicians generally maintained a more polite and formal tone in parliamentary speech than their male counterparts. Female MPs generally framed arguments with formality and policy-based language, even when critical, whereas male MPs, especially during confrontations, more often resorted to personal insults, shouting and vulgarity.

⁷⁶ The examples illustrated in this paper are translated by the first author Anila Hima.

⁷⁷ http://www.parlament.al/web/Procesverbale_15614_1.php accessed in February 2025.

"Mr. Speaker, I would like to emphasize that public spending is not justified, and there is a clear lack of transparency standards. This is a deep institutional problem."

"It is essential that we approach foreign policy with seriousness and without speculation. Throwing around accusations without facts serves no one."

These examples from female deputies reflected formal, respectful and policy-focused and inclusive (*"we approach foreign policy with seriousness"*) language, typical of constructive parliamentary debate.

Another aspect of politeness manifested in female political discourse was the formal courtesy form of addressing. In the Albanian language, there were distinct grammatical forms for addressing people in an informal and formal way, respectively, the informal singular form 'ti', used when addressing family and friends and the formal singular 'ju', which is used to show respect, especially when addressing elders, superiors, or people you don't know well. More often than their male colleagues, female politicians used the formal way of addressing their speeches.

Concerning personal expressions, through the textual analysis we found that the use of first-person singular pronouns *I* was seen as indicating personal involvement and directness, traits perceived as more masculine 69%. Conversely, the use of first-person plural form, *we*, was interpreted as signaling collective responsibility or distancing from individual accountability, following Wilson's (1990) concept of deixis. Given the synthetic nature of the Albanian language, where pronouns may be omitted due to verb inflections, verb density in the first person singular (indicating the use of *I*) and plural (indicating the use of *we*) was also considered in the textual analysis. The survey results confirmed that male politicians more frequently used *I* (65%), supporting respondents' perception that men tend to be more direct, while women are more indirect and inclusive. Some earlier mentioned examples: *"It is essential that we approach foreign policy with seriousness and without speculation"*, *"Therefore, we reiterate this proposal, inviting you to remove the VAT on health services and medications"*.

Regarding inappropriate and taboo language, respondents overwhelmingly associated them with masculine speech with 79%. Actually, based on the textual analysis, male politicians used inappropriate or offensive language more frequently and more explicitly than female politicians did in the Albanian Parliament, but with a lower frequency – 64%. Women's harsh, degrading, and inappropriate language, even though less problematic in violating the house rules of decorum, needs consideration. During an interpellation in Parliament, a female deputy responded harshly to a male deputy, calling him *"a puppy"* and using the expression, *"Oh, may your paint grow, how much s*** your mouth can eat"*, which led to the Speaker's intervention. Another very offensive addressing comes from another female MP: *"That gentleman... is a coward, he's soiled his pants... don't become his excrement"*, referring to one of the highest political figures, while ironically calling him *"gentleman,"* she launched a physical insult (*"soiled his pants"*) and used the term *"excrement"* to describe the behavior of the ruling majority MPs.

Lastly, irony, perceived by respondents as a feature of masculine speech (63%), was actually found to be slightly more frequent among female politicians (53%). A female MP, for instance, used the phrase *"Raise high, comrades, the flags of the congress"* to ironically highlight the lack of freedom of speech and the dominance of a

political theater, where critics were not invited to speak, or “*that gentleman*” used for ironically calling the Minister.

In table 3, we can see summarized and compared through both approaches (the survey and the textual analysis) the gendered linguistic features, examined in this analysis: politeness expressions, personal expressions (/ vs *we*), taboo/inappropriate words and irony.

Table 3. Summary of gendered linguistic features identified and analyzed

	SURVEY	TEXTUAL ANALYSIS
Category	Predominantly Used By:	Predominantly Used By:
Politeness Expressions	Female politicians	✓ Female politicians
Personal Expressions /vs <i>we</i>	Male politicians	✓ Male politicians
Taboo/Inappropriate words	Male politicians	✓ Male politicians
Irony	Male politicians	✗ Female politicians

CONCLUSION

This study aimed at analyzing public’s perceptions of gender differences in political discourse in the Albanian language, using both qualitative and quantitative approaches. The sociolinguistic survey demonstrated that the majority of respondents perceived differences in the way male and female politicians communicate. However, they were not able to identify reliably the gender of politicians based on short excerpts from their speeches. Consequently, it can be concluded that the gender-specific characteristics proposed by respondents in this study are insufficient to accurately determine a politician’s gender.

Furthermore, respondents’ gender did not appear to influence their answers, as male and female participants expressed similar views regarding political language.

The textual analysis served primarily as a tool to corroborate the survey, and mostly supported the survey. The textual analysis revealed that female political discourse also contains features that respondents associated with male speech styles and vice versa. The overall findings of this study can be summarized in the statement: gender differences are visible in some, but not necessarily in all contexts.

This research supports the notion that gender differences exist in political discourse, yet the linguistic variation related to gender does not follow a strict

dichotomous model—where all men speak distinctly differently from all women. As Eckert and McConnell-Ginet (1995) argue, within the categories of 'male' and 'female' speech, there is a diverse and mosaic range of patterns and models, where the distinctions can be more fluid than strictly binary.

Finally, to reach more generalizable conclusions about gender-specific linguistic variation in political discourse, further analytical studies are necessary. These studies should be based on a larger and more varied corpus encompassing different levels of political discourse, such as parliamentary speeches, interviews, televised debates, and interactions with broader public representatives from diverse age groups and social strata.

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Component Analysis of Abbreviations in Media Discourse

Aida Jalilzada

Nakhchivan State University, Azerbaijan, ORCID: 0009-0003-2463-2053

Abstract

In media discourse, various multi-component abbreviations are commonly used, prompting different approaches to their component analysis. These include classifying abbreviations by the number of components, examining the diversity of their structural elements, and comparing them to their full forms. Abbreviations can comprise graphemes, phonemes, syllables, words, numerals, or symbols, and may be of uniform or mixed types.

Uniform-type abbreviations contain components of the same kind, such as UK (two graphemes) or BFI (three graphemes). Mixed-type abbreviations combine different elements. Single-component abbreviations, especially frequent in British and American media, often denote units of measure, directional terms, or other functional labels.

The context determines the meaning of homonymous abbreviations. Media texts, including weather reports and TV listings, utilize standard single-letter abbreviations and provide legends or context when needed (e.g., C → Clouds, R → Rain). In sports reporting, standard codes like G, S, and B for gold, silver, and bronze are often used without explanation due to their widespread recognition.

Despite their usefulness, single-component abbreviations are limited in number due to the finite alphabet and potential ambiguity. Their use reflects linguistic economy and their formation depends on the frequency and context of their full forms.

Keywords: abbreviations, media discourse, component analysis, homonymous abbreviations, symbols, syllables

Various multi-component abbreviations are used in media discourse. Therefore, it is possible to approach the component analysis of abbreviations in at least three ways: Analysis in the form of groups differentiated by the number of components in abbreviations; Analysis based on the diversity of abbreviation components; Comparative analysis of abbreviation components and their full forms.

The study of the structural typology of abbreviations shows that their components can include graphemes, phonemes, phoneme combinations, grapheme

combinations, syllables, words, dots, hyphens, numbers, and other symbols. Abbreviations can be formed from either uniform or mixed types of components. Regardless of the type, an abbreviation consists of a certain number of components. From this perspective, an abbreviation can have one, two, three, four, five, or even more components. Generally, abbreviations with five or more components are not very common. However, there is still a need to create such abbreviations. In language, there are nominative units that contain more than six words. When such names are frequently repeated or widely used in a text, their abbreviation becomes necessary. For example, UNESCO, UNICEF.

Abbreviations with Uniform-Type Components

When the components of an abbreviation are of the same type, it means they share uniformity in terms of graphemes, phonemes, syllables, words, phoneme combinations, etc. For example:

"The UK Film Council, which has been absorbed by the BFI, developed the picture with backing from film companies Studio Canal and Aegis, plus sponsorship from Aviva, Nike, and Puma" (The Daily Mail, 30.03.2012: p. 69)

In this example, the abbreviation UK consists of two initial graphemes, while BFI consists of three initial graphemes. The UK abbreviation is two-component, and BFI is three-component. Both abbreviations are composed of uniform-type components.

"Lilyhammer, a Norwegian comedy-drama about a New York mobster, starts on BBC4 later this year" (The Daily Mail, 30.03.2012: p. 61).

In this example, the abbreviation BBC4 consists of four components. However, its components are not uniform; three of them are initial graphemes (BBC), while one is a number (4). Such abbreviations, which contain components of mixed types, will be referred to as mixed-component abbreviations.

Abbreviations with uniform-type components can consist of one, two, three, or more components. Their component analysis is conducted separately.

Single-Component Abbreviations

In British and American media discourse, single-component abbreviations such as **A, C, D, E, F, K, L, M, N, P, T, G, S, W** are used. Among them, four abbreviations represent directional terms:

- **E** (East)
- **N** (North or Northern)
- **S** (South or Southern)
- **W** (West)

In British newspapers, separate advertisement pages provide information about products for sale, including their price and weight. For example, page 48 of the *Daily Mail* issue dated **March 30, 2012**, belongs to this category. On that page, various texts are placed over product images, such as:

- Cadbury Flake Easter egg, 98p, 153g

- Cadbury Creme Egg Easter Egg, 98p, 178g
- Luxury Hot Cross Buns, 99p, 4-pack
- Mini Eggs, 59p, 90g
- Hurry! Limited stocks
- Beani Buny, 99p, 100g (The Daily Mail, 30.03.2012: p. 48)

In the given examples, the letter **p** following the numbers (**98p**, **59p**, **99p**) is an abbreviation. "*Pence [pens] n. pl pens (as a unit of money, amount); see: 'penny'*" (English-Azerbaijani Vocabulary, 2012: p.651). In these contexts, **p** is an abbreviation for the word **pence** or **penny**. Similarly, the abbreviation **g** in the examples represents a unit of mass, replacing the word **gram**.

One-component abbreviations are of the anacopa or initial type. They always keep the initial grapheme and discard the rest of the word: p ence, g ramme, m etre, m illion.

In media discourse, single-component abbreviations such as p, g, m are almost always used after numbers: 59 p, 90 g, 99 p, etc. In such cases, the word takes a plural suffix, and the plural suffix is considered during pronunciation, but the abbreviation is not increased.

Abbreviations denoting units of measurement are similarly used in American media discourse. Some abbreviations, such as p (pence), are used in British media discourse. This is also natural. In British newspapers, the currency of this country is used with high frequency. US currency is also prolific in American media discourse.

Most American and British newspapers carry the weather forecast. "London/SOUTH EAST: A warm day with blue skies and spring sunshine. Light winds. Max 22 C (72F): (The Daily Mail, 30.03.2012: p. 2)

Europe forecast [Europe forecast, p.1]

Today		C	F	tomorrow	C	F
Amsterdam	cloudy	11	52	cloudy	10	50
Brussels	cloudy	12	54	cloudy	11	52
Frankfurt	cloudy	13	55	cloudy	12	54

The abbreviations C and F in the table are temperature units. Since they are both proper names Celsius and Fahrenheit, they should be capitalized. British newspapers record these abbreviations in both lowercase and uppercase letters. It should be noted that abbreviations of the same full form in different images are also possible. The single-component abbreviation F is also used in English in the form "Fahr". Abbreviation F is adopted in the international system of units. Therefore, this abbreviation is considered standard. Fahr is a variant and is considered non-standard.

It is also possible for the same one-component abbreviation to mean different words. For example, p – pence, p – penny, p – page, p – pound. In English, the

abbreviation F is also used instead of feminine and frequency. "w - warden, water, week, weight, Welsh, West, western, white, wicker, wide, width, wife, with, withdrawal, work" (English-Azerbaijani Vocabulary, 2012: p. 1091). There are cases where the same abbreviation is used in different meanings in American and British newspapers. It is also possible to observe this in single-component abbreviations. The use of the same abbreviation in different meanings or belonging to a different full form becomes clear from the context. In some cases, the opening of the abbreviation is indicated in the text. Abbreviations with the same graphic volume and different full form can be called homonymous abbreviations.

The single-component abbreviation P is used as a homonym abbreviation in newspapers. "Apple offers refunds over IPAD's data speed claim. P32" (The Daily Mail, 30.03.2012: p. 29). "P32" is written after the announcement on page 29 of "The Independent" newspaper dated 29.03.2012 on page 28, "Gingrich vows to fight on after voting campaign team. P30-31" information was included. The P given after both pieces of information is an abbreviation that replaces the word "page". The number after the abbreviation P indicates the page on which the article related to the information or announcement is located. Let's also note that both P and "page" are used in newspapers. In other words, newspapers use both the abbreviated form and the full form. For example, on page 1 of the mentioned newspaper, after part of the article text, there are notes such as "continued on PAGE 2", "Reports, PAGE 7", "Reports, PAGE 4-5" (The Independent, 29.03.2012, p.1). The use of a number after the abbreviation P does not give reason to consider the abbreviation as a number. In numerical abbreviations, the number carries a certain semantic load and becomes one of the constituents of the complete form.

Consider some of the single-component abbreviations used in British newspapers:

l – liter; "Engine capacity 1.6 l petrol" (The Independent, 29.03.2012: p.39). R – radio; T – Television: "7.30 East Enders. Jay decides to talk to the police (T); 10.35 The Jonathan Ross Show Lost in the series (R) (T)" (The Independent, 29.03.2012: p.39). These examples are taken from the TV & radio section of The Independent newspaper. In each issue of the newspaper, 2 pages are allocated to this section, where information about the program of the main programs is given.

Single-component abbreviations mainly cover units of measurement, and their adoption, both functionality and the full form of the measurement, are intended to avoid mixing numbers and letters in calculations.

In the American newspaper "The International Herald Tribune", the weather forecast for travellers in different cities of the world is given under the heading "Travelers' Forecast". In this column, the newspaper accepts and notes its abbreviations, and uses those abbreviations when writing predictions.

Traveler's Forecast (The International herald Tribune, 01.10.2013: p20)

C → Clouds	Sh → Showers
F → Fog	S → Sun
H → Haze	Sn → Snow
I → Ice	T → Thunderstorms
PC → Partly cloudy	W → Windy
R → Rain	SS → Snow showers
H → High	L → Low

	°C	°F		°C	°F
Abu Dhabi	44/32	111/90 S	Kiev	24/11	75/72 Sh
Almaty	31/14	88/57 S	Mumbai	30/26	86/79 R
Bangkok	31/26	88/79 Sh	New York	34/28	93/82 T
Beijing	30/23	90/70 PC	Jakarta	33/23	91/73 H
Boston	27/22	81/72 T	Tokyo	31/25	88/77 F
Chicago	24/16	75/61 W	Moscow	22/11	72/52 S
Frankfurt	23/10	73/50 S	Toronto	22/19	72/66 R

C, F, H, R, S, W, as well as two-component conventional abbreviations such as PC (Partly cloudy), Sn (Snow), SS (Snow showers) given in the tables. When using such abbreviations in media discourse, their opening or full form is indicated. Such conditional reductions are also observed in the tables related to sports competitions.

"The International Herald Tribune" newspaper lists the countries that won medals at the London Olympic Games. Abbreviations G, S and B were used in that table: G – gold, S – silver, B – bronze. Unlike the weather forecast table, the opening or full form of the abbreviations G, S, B is not given in this table. The table is presented under the headings "Medals standings", "Olympics medals" (The International herald Tribune, 08.08.2012: p.13). Apparently, such a presentation allows the readers of the newspaper to understand the opening, deciphering and decoding of the abbreviations G, S, B. Therefore, it was considered superfluous to give the opening of the abbreviations.

Among the abbreviations used in both British and American newspapers, single-component abbreviations are in the minority. There are two reasons for this. First, the number of graphemes of the language or the number of letters in the alphabet is limited. There are 26 letters in the English alphabet. Even considering homonymy, there are not many possible abbreviations. The second reason is related to the information that abbreviations carry. A single-component abbreviation is placed against a word, since there are many words in the language that begin with the same letter, it is difficult to determine which word this or that grapheme replaces. Finally, it is incorrect to replace each word with its initial grapheme. Using abbreviations is related to the high frequency processing of their full forms. It should be considered that the language as a whole is not prone to abbreviation. The main reason for the creation of abbreviations is the principle of economy, and this economy is rooted in simplifying, not complicating, the language system.

One-component abbreviations also include special signs and symbols. Although such symbols and signs perform the function of abbreviations at the level of metalanguage, they are considered as signs and symbols, not abbreviations. They are not arranged by the letters of the alphabet of the language. Special signs and symbols used in British and American newspapers will be discussed in the third chapter of the work. In our opinion, it is more appropriate to collect such units from both British and American newspapers and involve them in research.

Two-component abbreviations

These abbreviations can be divided into two groups: 1) with the same type of component; 2) abbreviations with different types of components.

In two-component initial abbreviations, the components are of the same type, that is, both components are initial graphemes. For example, UK, UC, MP, PC, BP, GP, AG, AF, CF, PR, RC, etc.

"UN peacekeepers were hiding in their barracks and aid workers were being evacuated from the main hub in the region" (The Independent, 29.03.2012: p.17).

"U.S. wants deeper ties with continent, where China is longtime player" (The International Herald Tribune, 08.08.2012: p.4)

Two-component initial combinations are recorded in VV, VC, CV and CC types according to the processing of vowels and consonants. According to this typology, the most functionality is observed in abbreviations formed by CC combinations. Two-component initial combinations made of the same type of components are almost always read by the names of letters. However, some two-component initial combinations are revived as words. For example, FA, EO.

S.O. Barinova noted that there is a complete semantic identity between the abbreviation and their initial or full form in letter and sound combinations, and at the same time, the tendency of such abbreviations to be built according to the word scheme. [Barinova 2008: p.16]. The conducted research shows that the letter types of two-component initial combinations, that is, the form based on the reading of letters, are predominant. In fact, the types of VC and CV are most likely to be read as words in English. Because vowel+consonant, consonant+vowel phoneme sequences are functional in English. However, literal reading of abbreviations is preferred. Some abbreviations are read as words.

"FA [fa] Earlier this week student Liam Stacey, 21, was jailed after the hatred over tweets he posted about Bolton Wanderers footballer Fabrice Muamba, who collapsed from a cardiac arrest while playing in an FA Cup tie against Tottenham" [The Guardian, 19.03.2012]

The abbreviation ED and Ed has a literal reading. But personal names Emanuel, Edward, Eduard, etc. Phonetic reading is also possible in the abbreviation Ed. Although this name abbreviation is often used together with the surname in the British media discourse, it is also recorded that it is given separately as a personal name.

"Labour leader Ed Milband was dealt a blow last night when the chief architect of his policies for the next election announced he wanted to quit Westminster" [The Daily Mail, 30.03.2012: p.23].

The use of the mentioned abbreviation in the American media discourse is not recorded.

In fact, Ed, which is an abbreviation of the personal name Edward, is not a two-component abbreviation of the same type. If the initial binary grapheme combination is taken as a component, the abbreviation is unicomponent. If a letter is a component, then the abbreviation is a combination of the initial and the grapheme after it.

Two-component abbreviations formed by combining different types of components. Abbreviations of this type, used in British and American media discourse, attract attention by writing the letters in upper and lower case. Abbreviations in which the first of the components is capitalized, the second is lowercase, and both components are written in lowercase are widespread. For example:

"Mr. Frankel has a tougher time once Kay and Arnold, who travel to Maine to work with Dr. Feld, retreat into their corners" [The International Herald Tribune, 08.08.2012: p. 9]

The abbreviation Dr is made up of the initial and final graphemes of the word doctor. The abbreviation mechanism can be imagined as a clipping+blending process. The initial and final graphemes of the full form are cut first and then joined. The middle part of the word is dropped: doctor = Dr. In words such as Mister, Doctor, Junior, Senior, the initial grapheme of the abbreviation is written with a capital letter. Abbreviations of this type are also called syncope. Abbreviations of this type are not followed by periods in British media discourse. In American media discourse, abbreviations are used with periods.

Abbreviations made from a combination of different types of components and naming the units of measurement are written in lowercase letters when there is no personal name in full form: mm, kg, bn, km, etc.

"Beko Large 8kg Capacity Washing Machine" [The Independent, 19.03.2012: p.28].

"The London Olympics will be worth the £9.3bn cost to the public purse" [The Independent, 29.03.2012: p 4].

-in is an abbreviation of inch(es). The first component is the initial grapheme, the second is the intraword grapheme. The first two graphemes of the word were used in the abbreviation. The abbreviation is written in lower case.

Abbreviation of Ft. It is the same as the abbreviation Dr given above, feet is formed from the initial and final graphemes of the word. It is considered syncope. Both components of the abbreviation are written in lowercase.

Different types of two-component abbreviations have a condition that the number of components in their composition should be two. The number of elements of such abbreviations can be more than two. For example, T-shirts, Roam-free, MAC – McDonalds, Q1 – quarter 1, F1 – Formula 1, phone-in – telephone in, Brexit – Britain (or British) exit, Europol – European Police, Fed taper – Federal taper, Lib Dems – Liberal Dems, e-commerce – electronic commerce, e-tailing – electronic tailing, ebay – electronic bay, IBEX – Iberian Index, PHD – Doctor of Philosophy, sq.m – square meter, V-turn, etc. As you can see, there are not a few two-component abbreviations with components of different types, and it is possible to divide them into subtypes.

T-shirt (tee-shirt) – T-shaped short-sleeved shirt (t-shirt). There are different opinions about its etymology. According to the first version, it is considered the name given to the sleeveless shirt worn by workers emptying tea bags from ships carrying tea to Annapolis, the capital of the state of Maryland, in the colonial period – teeshirts. According to the second story, sleeveless T-shirts worn by American soldiers (British sailors) as slippers were called T-shirts because of their shape resembling the letter T [www.beautynet.ru]. One of the information about the etymology of the abbreviation mentions its origin in America, and another in Britain. Currently, T-shirt is used as a common noun in various languages.

In order for the words T-shirt or T-shirts to be an abbreviation, the formation of the grapheme T from the abbreviation of the word on its first side must be confirmed. If the word "tea" is taken as the basis, the abbreviation is of initial grapheme+word type. In the second case, it is possible to say that it is formed by dropping the element "shaped" from the combination "T (tee)-shaped shirt". The abbreviation is also hyphenated.

In the British and American media discourse, the T-shirt abbreviation is used: "Lock, stock and stopped T-shirt: Jason Statham and double hit the street" [The Daily Mail, 30.03.2012: p. 24].

The abbreviation Europol – European Police is made up of parts taken from the beginning of the full form and both. The "pol" part from the second word does not meet the syllable requirement. It is possible to assume that the first syllable of the word and the grapheme "l" were chosen for the abbreviation in the form of a combination. In our opinion, this possibility is not true. The second part of the abbreviation is not based on the syllable+grapheme principle. The "Pol" element has a CVC structure and is of word type. It turns out that Euro and pol are not the same kind of components.

The abbreviation Interpol is also an abbreviation of Europol according to the abbreviation mechanism. The first component of the abbreviation is the first part of the word International. Inter is a prefix meaning "between". Nevertheless, Interpol is an abbreviation and was formed by means of an abbreviation from the combination of International Police. The abbreviation is used in British and American media discourse. The full form of difficult-to-pronounce abbreviations is given next to the abbreviation when it is used for the first time in the media discourse. Abbreviations that are widespread and whose full form is known to many are not shown in parentheses.

LibDems – The Liberal Democrats Party – Liberal Democrats party. Along with the abbreviation LibDems, the use of the party's name in elliptical forms is also widespread in British media discourse.

"After a lot of pressure from senior Liberal Democrats, the Coalition replaced the orders with so-called TPIMs (terrorism prevention and investigation measures) soon after the last election" [The Independent, 29.03.2012: p. 14].

The components of the LibDems' cuts are essentially the same. Its full form consists of four words. The article "Party" was not involved in the process of abbreviation.

Brexit – Britain exit. One of the components of a two-component abbreviation is the first two graphemes of the word Britain, and the second component is the whole word. The abbreviation was created in recent times and was created due to the desire of the United Kingdom to leave the European Union.

"It comes after French president Emmanuel Macron, in an interview with the Financial Times, accused the UK of not keeping its Brexit pledges on fishing as he said London lacked "credibility"[www.mirror.co.uk].

PhD – Doctor of Philosophy. The first component of the abbreviation is the first two graphemes of the word Philosophy. The second component is the initial grapheme of the word Doctor.

eBay – buy electronically. The components of a two-component abbreviation are different. The first component is the initial grapheme of the first word of the full form. The second component is the word buy. The abbreviation stands for electronic shopping.

Thus, the analysis of two-component abbreviations shows that initial-letter and initial-sound or acronym abbreviations are as productive as single-component abbreviations. They usually have a literal reading. Such abbreviations, which are read as words, are a minority, they appear in VC, CV types due to the sequence of processing of the consonant and vowel in the composition. The number of elements of abbreviations made from components of the same type is equal to the number of their components.

Abbreviations with components of the same type, with more initial graphemes, are written with capital letters. Two-component abbreviations consisting of different types of components use uppercase and lowercase letters. There are more cases when the number of graphemes that make up abbreviations with different components is more than two.

Three-component abbreviations

In British and American media discourse, the number of three-component abbreviations is greater than any of those with one, two, four or more components. Initial abbreviations form the main part of three-component abbreviations. For example: NGN, INT, RWE, GMB, TUC, APR, RMI, HGV, ONS, NHS, NTK, FSA, ISM, BBC, Ltd, Dfs, USA, etc.

According to the opinion of the English researcher D. Crystal, in the 20th century, in addition to being widely used in science, development and special fields, abbreviations began to appear in the language of mass media at a great speed.

Economy also plays a decisive role in the press release of abbreviations motivated by the principle of language economy [Мартине, 1963: p.127]. At the same time, the tendency of sub-languages belonging to separate fields to abbreviation shows itself more clearly [Crystal, 2004: p. 48]. The increasing number of abbreviations in the media discourse of the United Kingdom and the United States is related to the worldwide distribution of the well-known newspapers of these countries, as well as their large volume, covering social, socio-political, economic, cultural and other fields, and the wide range of advertising opportunities. At the same time, it should be considered that in the modern era, new achievements related to scientific and technical progress are also broadcast through the English language.

In media discourse, the number of units formed by the combination of nominations and three or more words is increasing. Observing the principle of economy during their repeated processing in newspaper materials, eliminating tautology in the language of writing also encourages the creation of new abbreviations. According to D. Crystal, in 1995-1996, more than 1250 international organizations adopted English as an official language. Almost all of these organizations have abbreviated versions of their names, and these abbreviations have the opportunity to be used in both British and American media discourse [Crystal, 2004: p.87]. Undoubtedly, in addition to international organizations, the names of growing international companies and campaigns also enrich the abbreviation system of the English language. Let's also note that quite a few of such abbreviations are initial abbreviations and consist of three components. For example, IBM, PWC, FAO, WHO, CIF, CFR, EXW, FAS, FSA, etc.

"A roadside bomb struck a bus carrying Turkish troops to a navy base in western Turkey on Thursday, killing at least one and wounding 30, the state-owned television network TRT reported" [The International Herald Tribune, 08.08.2012: p. 3]

"SANA, the state news agency, reported the appointment in a brief announcement that did not refer to the defection" [The International Herald Tribune, 08.08.2012: p. 4]

BMA – The British Medical Association. The initial is an abbreviation. It consists of three components. Four words are involved in the full form. One of them is the definite article "the" and this word was not used in the process of abbreviation. The initial grapheme of each of the other main meaning words acts as a component of the abbreviation. They are components of the same type (initial grapheme). An abbreviation is used as a combination of initials. In British media discourse, the full form of the abbreviation is used in the earlier part of the text, and the abbreviation that replaces it is used in the later part. We could not register this situation in the American media discourse. In the British media discourse, it is elaborated in this way in the article "Doctors in threat to see emergency patients only" on page 11 in the issue of "Daily mail" dated 30.03.2012. It is written in the second paragraph of the article: "The British Medical Association will ballot its members in May to decide whether to take industrial action over the proposals" [The Daily Mail, 30.03.2012: p.11]. The name of the organization given in open form in the second paragraph of the article is presented as an abbreviation in the 5th paragraph. "The BMA says the government's plans to make doctors pay more into their pension and retire later are "unfair" and "unnecessary" [The Daily Mail, 30.03.2012: p.11]. In the open or full form of the name of the institution, as well as before the abbreviation, the definite article "the" is used. In general, abbreviations with a nominative singular are preceded by an article. "The action is likely to cause major disruption across the NHS and thousands of

appointments and operations would be cancelled" [The Daily Mail, 30.03.2012: p.11]. The definite article "the" is used before the three-component initial abbreviation NHS in the last sentence. Since articles express certainty and uncertainty, they need to be used in the text and context. When nominative units are taken separately, they are without articles. In this regard, the full form of the abbreviation is abbreviated without an article, not with an article.

Three-component abbreviations whose components are not of the same type. Among three-component abbreviations, there are not many of this type. Let's consider some of them.

Mrs – Mistress. Initial, middle and final graphemes of the word were used in the process of abbreviation. Given that all three components of the abbreviation are graphemes, it can be considered homogeneous. But those graphemes occupy different positions in the word. In this regard, the abbreviation cannot be considered as having the same component.

"I'm so glad they gave it the go-ahead", says Mrs Shiling who, educated at a Kent grammar school – Granbrook school – which she recalls fondly" [The Daily Mail, 30.03.2012: p.15].

lbs: "The world's biggest, weighing 55 lbs loz, was caught in Greffern, Germany, in 1996" [The Daily Mail, 30.03.2012: p.13]. In English-speaking countries, 1 pound is an abbreviation for the unit of weight. Libra is an abbreviation of the word scales. A word is formed by combining the initial grapheme and two other graphemes. The "s" at the end indicates sum. 1lbs = 0.453592237 kg.

There are three-component abbreviations with dots, numbers, and hyphens. Abbreviations made with the presence of the & ("ampersand"-) symbol are valid in English. Some of them are three-component. One component is the mark itself: NS&I.

The full form of the abbreviation: National Savings and Investments. "For over years, NS&I has always been changing to meet our customers' needs" [The Daily Mail, 30.03.2012: p.16].

A number of three-component abbreviations used in British and American media discourse are recorded in different meanings. For example, the abbreviation GDP is often used instead of the full form Gross Domestic Product. In addition, the General Development Plan combination is also expressed by the same three-component abbreviation.

"Government Debt as a Percentage" is also used as an abbreviation for "General Dental Practitioner" in British media discourse.

Three-component abbreviations are more often formed based on initial combinations. Some of them are sound abbreviations that are read as words. For example, BOC – British Oxygen Company; CEO – Chief Executive Officer; GOP – Grand Old Party; NUT – National Union of Teachers; IRA – Irish Republican Army; MEP – Member of the European Parliament, etc.

In abbreviations expressing phonetic initial three-component combinations, the location of consonants and vowels in the composition plays a fundamental role in their sound reading. If we divide such abbreviations into Consonant (C) and Vowel (V) types, we will encounter the picture given in the table below:

Abbreviation	Consonant, Vowel structure
NUT	CVC
GOP	CVC
BOC	CVC
MEP	CVC
CEO	CVV
IRA	VCV

As can be seen from the examples, the CVC structural type is the majority among three-component CVC abbreviations with a voiced initial. Abbreviations consisting only of consonants (CCC) are read with the names of the letters. Abbreviations formed by sequential processing of two consonants at the beginning (CCV) and at the end are also read with the names of the letters. The mentioned feature confirms the closeness of consonant+vowel+consonant sequence to word structure in English.

Letter-initial abbreviations are more productive than phonetic abbreviations. In British and American media discourse, a certain number of abbreviations with three or more elements are given in the text with their opening or full form. Abbreviations that are not used much, and the opening of which is not known to the general readership, are included by the authors in their full form. For example, DFE - Department for Education, DWP - Development for Work and Pensions, PIP - Personal Independence Payment, UMP - Union for a Popular Movement, etc.

Homonymous abbreviations are often used alongside the full form in order to avoid confusion in newspaper materials. For example, the abbreviation CDS is used as an economic term. Its full form is "credit default swap". CDS also replaces "Centre for Development Studies, Country Day School (CDC), Center for Documentary Studies (CDS)" in British media discourse. In general, the meaning of this or that abbreviation can be revealed in the context. In American media discourse, CDS is used as an economic term.

The analysis carried out on the basis of three-component initial abbreviations shows that the number of words contained in their full forms often exceeds three. Words whose initials are not included in the abbreviation include prepositions, conjunctions, and articles. Most a (article), of, for (clause), and (conjunction) are left out of the abbreviation process.

Four-component abbreviations

Such abbreviations used in British and American media discourse are composed of initial graphemes or phonemes. OECD, GCSE, HFEA, NATO, NASA, ISII, IRGC, ISIS, OPEC, CAAT, DCAS etc. These abbreviations are divided into letter, sound

and letter-sound abbreviations according to reading. Identical components are registered in terms of the fact that the components are of the same different type. "Original writers Sir Antony Jay and Jonathan Lynn are to create a six-part series for UKTV's subscription channel Gold" [The Daily Mail, 30.03.2012: p.19]. The abbreviation is derived from the combination of The United Kingdom Television. It is interesting that two abbreviations are combined here. UK (United Kingdom), the most used abbreviation in the British media discourse, and TV abbreviations, distinguished by their productivity, have been worked together to form a four-component abbreviation. The abbreviation consists of three initials and one regular grapheme. There are two different components to the reduction. US and U.S. in American media discourse. are productive abbreviations. The reason for the use of the abbreviation UK (United Kingdom) in the British media discourse and US in the American media discourse is clear.

"Although the high grades Dawn had been predicted to achieve in her early childhood were no longer possible, she did manage to get five GCSEs" [The Daily Mail, 29.03.2012: p.33]. The GCSE abbreviation consists of four initial graphemes.

One of the characteristics of media discourse is to convey new information to readers quickly and expressively. Language, graphic and descriptive tools are used for this purpose. In this regard, the mass media are prone to various language innovations [Gruni, 1992: p. 26]. Abbreviations are also one of the tools that stand out visually within the general text and attract attention. It is clear that abbreviations are repeated nomination units formed on the basis of language units and elements. Nevertheless, they also play a role in selecting and distinguishing the text. The use of abbreviations in the press is also considered one of the language innovations. Font, color, size, graphic signs and symbols, and different lines are used in newspapers. Abbreviations also qualitatively perform such a function. This aspect is very typical for abbreviations with four or more elements.

Numbers used in abbreviations and abbreviations perform different functions. First of all, it is necessary to specify whether the number is a component of the abbreviation or not. Component analysis is performed both from the full form to the abbreviation and from the abbreviation to the full form. "National Savings and Investments", "Glasgow, G58 1SB" in the "Daily Mail" fragment at the end, G58 and 1SB are abbreviations. The numbers in these abbreviations are related to the respective situation and may change in other cases. Therefore, in this type of numerical abbreviations, the numbers do not enter the full form, they do not appear as a result of the abbreviation process.

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Examining the Diversity of Microalgae in the Effluent of the Southern Tehran Wastewater Treatment Plant and Feasibility Study of Their Use in the Retreatment Process

Sedigheh Rahimi

*School of Biology, College of Science, University of Tehran, Iran
(Corresponding author: rahimi.s@ut.ac.ir)*

Nilloofar Hssani

Bachelor's Student in School of Biology, College of Science, University of Tehran, Iran

Khadije Arabsalmani

School of Biology, College of Science, University of Tehran, Iran

Abstract

With increasing water consumption and pollution from industrial and urban activities, wastewater treatment has become an environmental necessity. Microalgae, as natural agents in wastewater treatment, have gained attention due to their ability to absorb nitrates, phosphates, and heavy metals, reduce organic load, and produce oxygen. This study aimed to identify the diversity of microalgae present in the effluent of the Southern Tehran Wastewater Treatment Plant and assess their potential in improving the treatment process. Water samples were collected from the plant's effluent and cultivated in both liquid and solid media under controlled temperature and light conditions. The algal species were then examined and identified using light microscopy. Additionally, the efficiency of algal ponds in enhancing wastewater treatment was evaluated. The results revealed the presence of various microalgae species, including *Chlorella* sp., *Scenedesmus* sp., *Euglena* sp., *Monoraphidium* sp., and *Closterium* sp. Some of these, such as *Chlorella* and *Scenedesmus*, were found to effectively remove pollutants, including nitrogen and phosphorus compounds, from wastewater. These microalgae can play a significant role in improving effluent quality and reducing environmental contaminants. Furthermore, the establishment of algal ponds could serve as a sustainable and cost-effective bioremediation method for post-treatment of wastewater plant effluent.

Keywords: Wastewater Treatment, Microalgae, Bioremediation, Effluent, Nutrient Removal

Introduction

Water resources are becoming increasingly scarce worldwide due to the imbalance between freshwater availability and consumption, making access to clean and safe water one of the major challenges of modern society (Jackson et al., 2001). Water demand continues to rise due to population growth, migration to drought-prone regions, rapid industrial development, increased per capita water consumption, and climate change, which alters weather patterns in densely populated areas (Pearce, 2008). Water is an essential resource and a critical input in numerous industries, including pharmaceuticals, electronics, food and beverage, petrochemicals, agriculture, oil and gas, and domestic use (Morseletto et al., 2022). The direct discharge of contaminated wastewater from these industries poses significant environmental risks and has become a growing concern due to the presence of numerous pollutants (Chen et al., 2020).

Wastewater (WW) contains various compounds, some of which are highly toxic to organisms even at low concentrations. Additionally, significant amounts of inorganic nutrients and organic matter are released into the environment, leading to high chemical oxygen demand (COD) and biological oxygen demand (BOD). The eutrophication of aquatic environments caused by excessive phosphorus (P) and nitrogen (N) discharge results in environmental concerns such as solid waste accumulation and unpleasant odor emissions (Wang et al., 2022). It also promotes the growth of unwanted microbes, threatening aquatic life, degrading drinking water quality, and contributing to common issues in discharge-adjacent areas (Hena et al., 2021).

Heavy metals (HMs) are among the most prevalent contaminants in wastewater. Inhalation, ingestion, or direct exposure to these toxic substances, even at trace levels, can endanger human health and increase cancer risks (Abidli et al., 2022). In recent years, growing concerns have emerged regarding the presence of emerging contaminants (ECs) in aquatic systems and their associated hazards to human health and aquatic life. These ECs are synthetic organic compounds that, despite their long-term presence in the environment, have only recently been recognized due to increased scientific understanding, analytical advancements, and awareness of their risks (Munyaneza et al., 2022). Wastewater may also contain certain nutrients that promote the growth of aquatic plants and algae, leading to the eutrophication of lakes and streams (Topare, 2011).

When water is contaminated and treatment becomes necessary, selecting the most effective treatment strategy is crucial to achieving the desired purification goals (Basu et al., 2021). One approach to wastewater treatment is biological methods, which rely on the metabolic activities of microorganisms to break down and convert pollutants into biomass and associated gases (CO_2 , CH_4 , N_2 , and SO_2), thereby reducing BOD and COD levels in effluents and improving their quality (Dalvi et al., 2021).

Various microorganisms, including bacteria, fungi, and microalgae, have been employed in bioremediation to remove contaminants from the environment. Microalgae-based bioremediation technology has gained attention as a viable technique due to its advantages. Algal bioremediation can eliminate pollution while producing biomass that can be converted into valuable bioproducts (Kalra et al., 2021). Microalgae (MA) cultivation as an intensive green tertiary wastewater treatment has garnered increasing interest from the global scientific community.

This study aims to identify the microalgae present in the Southern Tehran Wastewater Treatment Plant and evaluate their potential for wastewater treatment applications.

Materials and Methods

To obtain comprehensive data on the diversity and role of microalgae in wastewater treatment, a systematic-spatial sampling model was employed. For this study, water samples were collected from five different points at the effluent outlet of the Southern Tehran Wastewater Treatment Plant, covering diverse geographical locations (Table 1 and Figure 1). These sampling points included industrial, residential, and agricultural zones to ensure a wide range of contaminants were represented.

Sample Collection and Preservation

Samples were collected in sterile glass bottles and immediately transported to the laboratory.

During transport and until analysis, samples were stored at 4°C (in a refrigerator) to prevent chemical alterations or unwanted microbial growth.

Culture Medium Preparation

The standard Bold's Basal Medium (BBM) was used, containing all essential nutrients for microalgae growth (Figure 2). The medium was prepared in two forms:

Liquid culture medium – For rapid and mass growth of microalgae.

Solid culture medium – Prepared by adding 1.5% agar to the liquid medium for species isolation and purification.

Cultivation Process

Each water sample was separately inoculated into both liquid and solid culture media.

Cultured media were placed in an incubator (temperature and light-controlled chamber) under the following conditions:

Temperature: 25°C (day) and 17°C (night).

Light: 16-hour light / 8-hour dark photoperiod with 2000 lux light intensity (simulating natural sunlight).

Duration: 7 days for liquid cultures and 10 days for solid cultures.

Microscopic Examination and Identification

After the growth period, the developed colonies (Figure 3) were examined using:

Light microscopy (400x magnification) to observe algal morphology (shape and structure).

Standard identification keys (Prescott, 1899) and reliable scientific references to identify microalgae genera (e.g., *Chlorella*, *Scenedesmus*, *Spirulina*).

Water Sample Analysis

A collected water sample was analyzed to determine its elemental composition, with results presented in Table 2.

Table 1 .Location and geographical coordinates of collected samples

	Location	Longitude	Latitude
1	Effluent outlet of Southern Tehran WWTP (South of the ancient Kasani Castle hill)	51.447648°	25.566263°
2	Eslamabad Village	51.520338°	25.562140°
3	Effluent outlet of Khavarshahr WWTP	51.566381°	25.550879°
4	Qiamdasht	51.662407°	25.525628°
5	Imam Reza Boulevard, Pakdasht	51.683292°	25.485302°



Figure 1. (Outlet of the South Tehran Wastewater Treatment Plant)



Figure 2. Preparation and cultivation of the studied samples in solid and liquid culture medium



Figure 3. Growth of colonies in solid and liquid culture media

Table 2. Heavy metal concentrations in the effluent of Southern Tehran Wastewater Treatment Plant

Sample	Element	Calc Conc.	Units
Kh-1	Al	2.4888	mg/L
	Ag	0.26880	mg/L
	B	0.42457	mg/L
	Ba	0.40807	mg/L
	Bi	0.51160	mg/L
	Ca	83.272	mg/L
	Cd	0.052243	mg/L
	Co	0.041568	mg/L
	Cr	0.055279	mg/L
	Cu	0.19823	mg/L
	Fe	0.032793	mg/L
	Ga	0.15044	mg/L
	In	0.33434	mg/L
	K	19.669	mg/L
	Li	0.29048	mg/L
	Mg	16.268	mg/L
	Mn	0.20139	mg/L
	Na	91.996	mg/L
	Ni	0.079407	mg/L
	Pb	0.086065	mg/L
	Sr	1.2537	mg/L
	Tl	0.28645	mg/L
	Zn	0.074068	mg/L

Results and Discussion:

Ahmad et al. (2021) reported a list of algae suitable for heavy metal absorption. Since some of the microalgae obtained in this experiment match their findings, these microalgae have the ability to absorb heavy metals. Therefore, they can be added to water to absorb a portion of the heavy metals. Amour et al. (2012) demonstrated that certain microalgae have antimicrobial effects. Thus, adding these microalgae to water can provide antimicrobial benefits.

This study aims to identify microalgae resistant to highly polluted water so that they can be used to improve the quality of effluent from wastewater treatment plants. This water is primarily used for irrigating agricultural fields and orchards. However, due to the presence of heavy metals, microbial and fungal contaminants, as well as nitrogen and phosphorus compounds, it may be harmful to crops and the environment.

Table 3. List of microalgae species identified in the effluent of South Tehran Wastewater Treatment Plant

	Genus	Application	Source
1	Clorella sp.	Biofuel production, bioremediation, dietary supplements, wastewater treatment	(Markou and Georgakakis 2011),(Becker 2013),(Abdel-Karim, Gheda et al. 2019)
2	Cloeosterium sp.	possibly bioremediation and biofuel research	(You, Yang et al. 2022)
3	Scenedesmos sp.	Biofuel production, bioremediation, carbon sequestration, wastewater treatment	(Rawat, Gupta et al. 2016), (Mata, Martins et al. 2010)
4	Cholorobion sp.	possibly bioremediation	
5	Spirullina sp.	Nutritional supplement, pharmaceutical applications, antioxidant production	(Khan, Bhadouria et al. 2005), (Vonshak 1997)
6	Euglena sp.	Biofuel production, dietary supplements, bioremediation, cosmetic applications	(Ogawa, Tamoi et al. 2015)
7	Nanochloris sp.	Biofuel production, aquaculture feed, pharmaceutical research	(Pruvost, Van Vooren et al. 2009)
8	Monoraphidium sp.	Biofuel production, bioremediation, aquaculture feed	
9	Clamydomonas sp.	Model organism in genetics and molecular biology, biofuel research	(Harris 2001), (Merchant, Prochnik et al. 2007)

The findings of this study demonstrated that the South Tehran Wastewater Treatment Plant harbors a diverse array of microalgae species. The complete list of identified microalgae is presented in Table 3.

As presented in Table 3, the microalgae species *Chlorella* sp., *Scenedesmus* sp., *Euglena* sp., *Monoraphidium* sp., and *Closterium* sp. demonstrate significant potential for heavy metal bioremediation. These species were successfully cultivated in the polluted wastewater, confirming their tolerance and survival capacity under such conditions. Beyond their metal absorption capabilities, all identified species serve as viable feedstock for biofuel production. This dual functionality makes them

particularly suitable for cultivation in treatment ponds, where they can be periodically harvested for both water purification and bioenergy applications - a distinct advantage over other metal-absorbing algae species.

Notably, *Chlorella* and *Scenedesmus* exhibit exceptional wastewater treatment capabilities, particularly for nitrogen and phosphorus removal (Zhou et al., 2021). Their biosorption and bioaccumulation mechanisms offer a sustainable, cost-effective solution for improving effluent quality (Smith & Johnson, 2020). Implementing microalgae-based treatment addresses the critical issue of eutrophication while protecting aquatic ecosystems (Wang et al., 2019). This process simultaneously reduces pollutant loads and generates valuable biomass for multiple applications including biofuels, animal feed supplements, and biofertilizers (Gupta & Verma, 2022).

The integration of algal ponds with conventional wastewater treatment systems creates a hybrid technology that enhances overall treatment efficiency. Unlike chemical methods that are often costly and environmentally detrimental, this approach represents an eco-friendly and efficient natural solution (Park et al., 2021). Furthermore, microalgae-based tertiary treatment not only mitigates environmental pollution but also creates new economic opportunities. Advanced algal technologies can significantly reduce treatment costs, minimize environmental impacts, recover valuable resources, and improve treatment plant productivity (Chen et al., 2022).

Conclusion:

Current effluent analysis confirms the treated wastewater fails to meet reuse standards. The optimal solution involves implementing a multi-stage treatment system combining biological (algal) and physico-chemical processes. This integrated approach would elevate water quality to international standards while generating valuable biomass for economic returns. The study demonstrates that selected microalgae species offer a sustainable, cost-effective solution with dual environmental and economic benefits for wastewater treatment applications.

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A Computational Perspective on Catalyst–Molecule Interactions

Hanaa Sari Mohammed

Université de Tlemcen, Algeria

Karim Merabti

Université de Tlemcen, Algeria

Sihem Azizi

Université de Tlemcen, Algeria

Abstract

The catalytic production of second-generation biofuels from lignocellulosic biomass offers a sustainable alternative to fossil fuels. Among the various approaches, hydrodeoxygenation (HDO) plays a central role by enabling the conversion of biomass-derived platform molecules into high-quality alkanes through a series of reactions including hydrogenation. Experimental studies have shown that metallic catalysts are essential for these transformations due to the complexity and diversity of the reactions involved. To better understand the underlying mechanisms, a theoretical approach is adopted to identify the adsorption behavior of reactants and intermediates on catalytic surfaces, and to determine the active sites responsible for each elementary step. This mechanistic insight is crucial for the rational design of efficient catalysts tailored to the HDO process.

Keywords: catalytic production, hydrodeoxygenation (HDO), metallic catalysts, DFT, pseudopotentials, basis

Comparison of MPC Based Motion Control Algorithms on Mujoco Hybrid Platform
Mujoco Hibrit Platformunda Mpc Tabanlı Hareket Kontrol Algoritmalarının Karşılaştırılması

Ayşe KIZILDEMİR KILIÇ,
M.Sc. Student Istanbul Technical University, Turkiye

Prof. Dr. Hakan TEMELTAŞ
Istanbul Technical University, Turkiye

Abstract

Quadruped robots(QRs) have attracted significant attention in recent years compared to wheeled or tracked robots due to their ability to move on rough and sloping terrain. With the advancement of technology, these robots have become extremely prominent in areas such as search and rescue, agricultural activities, exploration in remote areas and logistics operations. With the increasing demand for QRs, the need for high performance motion control strategies has become increasingly evident. Among the existing control techniques, Model Predictive Control (MPC) is a model based approach that predicts the future behavior of the system and continuously optimizes control inputs to maximize robot performance. For this reason, it is considered one of the powerful and preferred methods.

This study presents a comparative analysis of three different MPC based motion control methods: Iterative Linear Quadratic Gaussian (iLQG), Gradient Descent and Predictive Sampling. These algorithms were tested on the Unitree A1 model in a simulation environment using the MJPC platform developed by the Google DeepMind team. The integration of MJPC with the MuJoCo physics engine provides a robust infrastructure and computational environment for conducting predictive control experiments.

The simulation environment was developed using Python and Jupyter Notebook, allowing user interaction, data collection, visualization, and performance evaluations. The scenarios included various locomotion tasks such as walking, trotting, galloping, hill climbing, progressing on unstable ground, and recovery after falling. Time series data and cost function outputs were recorded to evaluate the consistency, efficiency, and responsiveness of each control method.

The results revealed that the iLQG algorithm provided the highest tracking accuracy, fastest convergence, and highest stability under various conditions. This method stood out as a more effective method in terms of maintaining balance and adapting to step transitions. Gradient Descent showed moderate performance but required careful tuning of parameters such as step size and was not robust enough to sudden ground changes. Although Predictive Sampling is an algorithm that does not rely on derivatives, it was considered a suitable alternative that provides stability in simple scenarios due to its lower computational complexity.

In addition, this study has addressed some of the shortcomings of the MJPC platform, such as benchmarking tools and visualization capabilities. A special evaluation

interface has been developed that allows for more detailed performance analysis and different simulation scenarios. This advanced structure is thought to be a helpful approach for future research to improve the locomotion of QRs with predictive control methods.

Keywords: iLQG, Model Predictive Control, MuJoCo, Predictive Sampling, Quadraped Robots

Özet

Dört ayaklı robotlar, engebeli ve eğimli arazilerde hareket edebilme yetenekleri sayesinde, tekerlekli veya paletli robotlara kıyasla son yıllarda önemli ölçüde ilgi görmüştür. Teknolojinin ilerlemesiyle birlikte bu robotlar; arama-kurtarma, tarımsal faaliyetler, uzak bölgelerde keşif ve lojistik operasyonlar gibi alanlarda son derece öne çıkmıştır. Dört ayaklı robotlara olan talebin artmasıyla birlikte, yüksek performanslı hareket kontrol stratejilerine duyulan ihtiyaç da giderek daha belirgin hale gelmiştir. Mevcut kontrol teknikleri arasında, Model Öngörülü Kontrol (MPC), sistemin gelecekteki davranışını öngören ve robot performansını en üst düzeye çıkarmak için kontrol girişlerini sürekli optimize eden modele dayalı bir yaklaşımdır. Bu nedenle güçlü ve tercih edilen yöntemlerden biri olarak kabul edilmektedir.

Bu çalışma, MPC tabanlı üç farklı hareket kontrol yönteminin karşılaştırmalı analizini sunmaktadır: İteratif Lineer Kuadratik Gauss (iLQG), Gradyan İnişi ve Öngörülü Örneklem. Bu algoritmalar, Google DeepMind ekibi tarafından geliştirilen MJPC platformu kullanılarak simülasyon ortamında Unitree A1 modeli üzerinde test edilmiştir. MJPC'nin MuJoCo fizik motoru ile entegrasyonu, öngörüye dayalı kontrol deneylerinin yürütülmesi için sağlam bir altyapı ve hesaplama ortamı sağlamaktadır.

Simülasyon ortamı, Python ve Jupyter Notebook kullanılarak geliştirilmiş olup kullanıcı etkileşimi, veri toplama, görselleştirme ve performans değerlendirmelerine olanak tanımaktadır. Senaryolarda yürüme, koşma, dörtnala gitme, yokuş tırmanma, dengesiz zeminde ilerleme ve düşme sonrası toparlanma gibi çeşitli hareket görevleri yer almaktadır. Her bir kontrol yönteminin tutarlılığını, verimliliğini ve tepki hızını değerlendirmek amacıyla zaman serisi verileri ve maliyet fonksiyonu çıktıları kaydedilmiştir.

Sonuçlar, iLQG algoritmasının çeşitli koşullar altında en yüksek izleme doğruluğunu, en hızlı yakınsamayı ve en yüksek stabiliteyi sağladığını ortaya koymuştur. Bu yöntem, dengeyi koruma ve adım geçişlerine uyum sağlama açısından daha etkili bir yöntem olarak öne çıkmıştır. Gradyan İnişi, orta düzeyde bir performans sergilemiş; ancak adım büyüklüğü gibi parametrelerin dikkatli şekilde ayarlanmasını gerektirmiş ve ani zemin değişikliklerine karşı yeterince dayanıklı olamamıştır. Tahmini Örneklem, türevlere dayanmayan bir algoritma olmasına rağmen, daha düşük hesaplama karmaşıklığı nedeniyle basit senaryolarda kararlılık sağlayan uygun bir alternatif olarak değerlendirilmiştir.

Ayrıca bu çalışma, MJPC platformunun karşılaştırma araçları ve görselleştirme yetenekleri gibi bazı eksikliklerini de ele almıştır. Daha ayrıntılı performans analizlerine ve farklı simülasyon senaryolarına olanak tanıyan özel bir değerlendirme arayüzü geliştirilmiştir. Bu gelişmiş yapının, dört ayaklı robotların hareket kabiliyetini öngörülü kontrol yöntemleriyle geliştirmeye yönelik gelecekteki araştırmalar için yararlı bir yaklaşım olacağı düşünülmektedir.

Anahtar Kelimeler: iLQG, Model Tahminli Kontrol, MuJoCo, Tahminli Örneklem, Dört Ayaklı Robotlar

A Skin Effect in Horizontal Wells

Sulaiman Dzaiy

Ph.D. Student, Petroleum-Gas University, Romania

Al Jaseem Ameer Maki

Ph.D. Student, Petroleum-Gas University, Romania

Lect. Dr. Doru Bârsan

Petroleum-Gas University, Romania

Prof. Dr. Timur Chis

Petroleum-Gas University, Romania

Abstract

Increasing the capacity of depleted natural gas fields to provide additional quantities of natural gas is being achieved recently through the use of horizontal wells.

But even if these wells achieve performances that are difficult to achieve through vertical wells, the skin effect (omnipresent and complex) still causes natural gas production (flow through porous media) to be affected by creating additional flow resistance in the wellbore area.

Understanding, quantifying and managing the skin effect makes the exploitation of gas fields through horizontal wells viable, this article discussing the numerical modelling of the fluid flow behaviour in the wellbore area affected by the skin effect.

Keywords: horizontal gas drilling, skin effects, modelling of the fluid's velocity

Introduction

The increasing demand for natural gas as a transitional fuel has led to an increase in the number of horizontal wells, with the aim of producing gas from depleted reservoirs.

Originating as a deviation from vertical drilling (often unintentional), directional drilling has been used to drill multiple wells in the same location (offshore platforms) since the 1920s and 1930s. Direction control techniques were taken from mining (acid glass) or by using magnetic fields (single and multiple shot).

But the first commercial technological applications were developed starting in the 1970s, with the development of mud motors, which allowed the drill bit to rotate independently of the drilling rig, thus facilitating directional control.

The first successful installation of a pipeline (by horizontal drilling) took place in 1971 (under the Pajaro River, California), and the first 90° deviated well was developed by Mobil in the Pine Island field (1970).

The well was stimulated by hydraulic fracturing, using limited penetration technology (developed by Mobil).

Innovations in measurement and logging techniques while drilling (MWD - Measurement While Drilling) and (LWD - Logging While Drilling), created the premises for the exponential growth in the number of horizontal drilling and especially in the productivity of the drilled layers.

If in 1987 51 horizontal wells were drilled, their number reached over 5000 in 1997.

By 2001, over 34,777 horizontal wells were registered in 72 countries. Canada (over 18,000) and the United States (over 11,000) are the leaders in these exploitation techniques.

Drilling has also been carried out in Russia, Venezuela, Oman, the United Arab Emirates, Nigeria, Saudi Arabia and Indonesia.

In Romania, the first onshore horizontal well was drilled in Bacea, Blejești (1995-1996), and for the exploitation of the Lebăda Est field (on the Black Sea platform), horizontal drilling has been carried out since 1993.

Also, significant quantities of crude oil were extracted, as a result of horizontal drilling, in the Suplacu de Barcău deposit (starting with 2011).

The use of horizontal drilling to penetrate into layers with low permeability and the treatment of these layers by hydraulic fracturing, created the premises for productivity increases, difficult to achieve by other methods.

Horizontal wells are useful for not intercepting the water cone, for obtaining vertical fractures of productive layers, for ensuring increased flow rates in the case of underground gas deposits.

A classic example of exploitation of the Austin deposit by drilling 4000 horizontal wells in limestones, led to obtaining a productivity of 9400 tons per well.

Materials and Method

The first description of the skin effect was carried out by Van Everdingen and Hurst, to numerically model the differences between bottomhole pressures from wells in operation (measured pressures) and those calculated with Darcy's relationship (assuming that these differences are due to contamination of the layer belonging to the study area with drilling fluid).

The skin effect refers to the change in flow conditions in the vicinity of the wellbore (well wall) compared to flow through the unaffected porous medium.

$$\Delta p_s = S \cdot \frac{q \cdot \mu \cdot B}{2 \cdot \pi \cdot k \cdot h} \quad (1)$$

Fundamentally, the skin effect manifests itself as an additional pressure drop that varies directly proportionally to the dimensionless skin factor S , the fluid flow rate q (m³/day), the fluid viscosity μ (cP), the fluid volume factor B (m³/m³_{st}), and

inversely proportional to the permeability of the unaffected formation, k (mD or m²), the thickness of the productive layer h (m).

The constant that defines the skin factor can be positive (indicating damage to the area around the well) and therefore an additional pressure drop, negative given an improvement in permeability.

And Hawkins defined the skin factor with the relationship:

$$S = \left(\frac{k}{k_s} - 1\right) \cdot \ln\left(\frac{r_s}{r_w}\right) \quad (2)$$

Also, relation (2) provides us with data on the alteration of the productive formation, starting from the permeability of the unaltered formation k (in mD), permeability of the altered zone k_s (mD), radius of the altered zone (skin) r_s (m) and radius of the well r_w (m).

When $k_s < k$ then $\frac{k}{k_s} < 1$, and the skin factor $S > 0$, so the zone is deteriorated, and the permeability of the altered zone is lower than that of the productive formation.

When $k_s > k$ then $\frac{k}{k_s} > 1$, and the skin factor $S < 0$, so the zone has improved flow and the permeability of the altered zone is higher than that of the productive formation.

When $k_s = k$, then $S=0$ and there is no skin effect.

The higher the ratio $\frac{r_s}{r_w}$, the greater the area alteration.

For radial flow of a stabilized incompressible fluid, the flow equation (which includes the skin effect) is:

$$q = \frac{2 \cdot \pi \cdot k \cdot h \cdot (p_e - p_{wf})}{\mu \cdot B \cdot \left(\ln \frac{r_e}{r_w} + S\right)} \quad (3)$$

In equation (3), r_e is the drainage radius, p_e represents the pressure at the drainage radius (Pa), and p_{wf} is the flow pressure at the wellbore.

In practice, the total skin factor (equation 4) (S_t) is used, which is given by the actual skin (due to well stimulation or damage) (S_d), the skin due to completion (fitting a slotted liner or perforating it) of the well (S_c), the pseudoskin, due to deviation from ideal radial flow (S_{pseudo}) (occurs due to well inclination, partial fluid penetration and horizontal wells) and the skin that occurs at high flow rates (especially gas flow), namely the non-Darcy skin ($D \cdot q$).

$$S_t = S_d + S_c + \sum S_{pseudo} + D \cdot q \quad (4)$$

Design of horizontal gas well stimulation operations

Generally, horizontal natural gas wells are drilled in well-known formations as a result of exploitation through horizontal wells.

In principle, depending on the type of well completion, several stimulation technologies can be applied, the most common being:

a. Wells that have an open hole. If it is not possible to tighten or collapse the wellbore, the flexible tube is inserted at the bottom of the horizontal portion. Then a high-flow flushing is performed to remove the drilling fluid and debris from the well.

This is followed by flushing (a bath) with an acid solution with a concentration given by the rock mineralogy or injection of the solution at a low flow rate into the pores of the productive layer (matrix-type acidization). Dual packers can also be used for stimulation, to direct the acid solution to areas of increased porosity and permeability (in the case of physical logs),

b. Wells that have a perforated or slotted liner. In this case, the flexible tubing is also used, except that in this case, after washing, the injection operation of the acid solution into the annular space takes place using the flexible tubing mounted to the end of the horizontal section or the flexible tube is successively withdrawn to the end of the horizontal section towards the vertical area, placing acid solution packages as it is withdrawn. Injection packers can also be used, but with a maximum distance of 125 m from the perforated spacer,

c. In wells completed with slotted or perforated liner and external column packers, stimulation is performed after the interpretation of geophysical logs, the porous-permeable zones being separated from the impermeable intercalations with packers.

d. If the column is cemented, stimulation will take place by perforating the cement column at desired points, acid injection and therefore matrix acidification, hydraulic fracturing, neutral hydraulic fracturing with support agent.

To observe the productivity increase (or injectivity) of a horizontal well in a reservoir under steady-state or pseudo-steady-state flow conditions and thus allow the performance of a horizontal well to be compared with that of a vertical well under similar reservoir conditions, we can use Joshi's analytical relationship:

$$I_H = \frac{q_h}{\Delta p} = \frac{\frac{2\pi k_h h}{\mu B_o}}{\ln \left[\frac{\alpha + \sqrt{\alpha^2 - (\frac{L}{2})^2}}{\frac{L}{2}} \right] + \frac{I_{ani}}{L} \ln \left[\frac{I_{ani} h}{r_w \ln \left[\frac{I_{ani} h}{r_w (I_{ani} + 1)} \right]} \right]} \quad (5)$$

In equation (5) I_H is the productivity index of the horizontal well (m³/day/bar), q_h is the flow rate of the horizontal well (m³/day), Δp is the pressure difference between the drainage limit and the flow pressure at the base ($p_e - p_{wf}$), k_h is the horizontal permeability of the reservoir (in the main lateral parallel direction usually considered k_x or the average $k_x k_y$), h is the net thickness of the productive layer, μ is the fluid viscosity, B_o is the gas volume factor, L is the length of the horizontal productive section of the well, r_w is the well radius, I_{ani} represents the anisotropy factor ($I_{ani} = \sqrt{\frac{k_h}{k_v}}$).

The semi-major axis of the drainage ellipse is a function of the equivalent drainage radius of the horizontal well r_{eh} .

$$\alpha = \frac{\frac{L}{2}}{\sqrt{0.5 + \sqrt{0.25 + \left(\frac{r_{eh}}{L} \right)^4}}} \quad (6)$$

For a rectangular drainage area of area, $A = \frac{2x_e}{2y_e}$, where the probe is centered, the radius, r_{eh} , can be approximated in various ways, Joshi considering an

elliptical drainage area and so for the case of a quadratic drainage with side $2x_e$ then $r_{eh} = \sqrt{\frac{A}{\pi}}$, where $A = (2x_e)^2$.

Assuming that $x_e > \frac{L}{2}$ (x_e being the distance from the probe to the drainage boundary in the x direction) and the probe is located in a drainage area with a quadratic drainage area $2x_e$, then we can write:

$$I_h = \frac{0.00708 k_h h / (\mu B_0)}{\ln \left[\frac{\alpha + \sqrt{\alpha^2 - \left(\frac{L}{2}\right)^2}}{\frac{L}{2}} \right] + \frac{I_{ani}}{L} \ln \left[\frac{I_{ani} h}{r_w (I_{ani} + 1)} \right]} \quad (7)$$

When k_h in mD, h , L , r_w in ft, q_h in STB/day, Δp in psi, μ in cP, B_0 in bbl/STB.

In equation (7), α is calculated with relation (6) and r_{eh} is function by x_e .

To calculate the increase in productivity of the horizontal well compared to the vertical one, we present the productivity equation of the vertical well below:

$$I_v = \frac{2 \pi k_h h / (\mu B_0)}{\ln \left[\frac{r_{ev}}{r_w} \right] + S} \quad (8)$$

In relationship (8) r_{ev} represents the vertical well drainage radius for the same area $r_{ev} = \sqrt{A/\pi}$ and S represents the skin factor for the vertical probe.

The $\ln \left[\frac{r_{ev}}{r_w} \right]$ has the value between 7 and 9, while the sum of the two logarithmic

expressions $\ln \left[\frac{\alpha + \sqrt{\alpha^2 - \left(\frac{L}{2}\right)^2}}{\frac{L}{2}} \right] + \frac{I_{ani}}{L} \ln \left[\frac{I_{ani} h}{r_w (I_{ani} + 1)} \right]$ has a value between 3 and 4.

So it is demonstrated that an unstimulated horizontal well can be less productive than a vertical well and that is why matrix acidification is recommended.

Acid baths and matrix acidifications in horizontal wells must be performed using flexible tubing, because simple acidifications have shown that when washing with a 300 cubic meter acidification solution, the flow rates increased by a maximum of 15% of the flow rate of a vertical well.

Rock blockages during horizontal well drilling lead to increased productivity as the contact with the drilling fluid in the first part of the well increases the pressure gradient.

In cross-section, the blockage has an elliptical shape, reflecting the anisotropy of permeability.

In this case the skin effect can be expressed by the relationship:

$$S_{eq} = \left(\frac{K}{K_g} - 1 \right) \cdot \ln \left[\frac{1}{I_{ani} + 1} \sqrt{\frac{4}{3} \left(\frac{\alpha_{Hmax}^2}{r_w^2} + \frac{\alpha_{Hmax}}{r_w} + 1 \right)} \right]^3 \quad (9)$$

Chemical matrix stimulation of gas wells is a well intervention operation aimed at improving the permeability of the reservoir rock in the immediate vicinity of the wellbore.

This is achieved by injecting chemical solutions into the formation at pressures below the rock fracturing pressure, so that the treatment fluid penetrates the existing pores of the rock matrix,

The main purpose of chemical matrix stimulation is to remove damage in the area near the wellbore and/or improve the natural permeability of the rock. Damage can be caused by:

- Drilling or completion fluids (invasion of fine particles, pore blockage).
- Migration of fine particles from the formation (clays, silicates).
- Swelling of clays in the presence of water.
- Precipitation of salts (scales) from the reservoir water.
- Organic deposits (paraffins, asphaltenes – less common in pure gas wells, but possible in gas condensate wells).

By dissolving these blocking materials or part of the rock matrix, better flow paths for gas to the well are restored or created, leading to increased production.

The choice of chemical solution depends critically on the mineralogy of the formation and the type of damage suspected:

• **Hydrochloric Acid (HCl):**

- o Primary Use: Carbonate deposits (limestones, dolomites). HCl reacts rapidly with carbonates, dissolving them and creating larger flow channels (known as "wormholes").

- o Typical concentrations: 5% - 28% (usually 15%).

• **Hydrofluoric Acid (HF) mixed with HCl (Acid Mud):**

- o Primary Use: Sandstone deposits (sandstones). HF has the ability to dissolve clay minerals and silicates (including quartz and feldspars) that can block pores. HCl is included to dissolve any carbonate component and to prevent precipitation of some HF reaction products.

- o Typical formulations: For example, 12% HCl - 3% HF.

- o Precautions: HF is highly corrosive and reactive, requiring special handling and specific additives. It can cause precipitation of some fluorosilicates if not used correctly.

• **Organic Acids (acetic acid, formic acid):**

- o Use: In high temperature reservoirs (reacts more slowly than HCl), in formations sensitive to strong HCl, or as pre-flush/post-flush. They are less corrosive than strong mineral acids.

- o Can also be used to chelate iron ions and prevent iron hydroxide precipitation.

• **Organic Solvents (xylene, toluene, methanol):**

- o Use: To dissolve organic deposits such as paraffins or asphaltenes, which can occur in gas condensate wells. Methanol can also be used to reduce surface tension and help remove water blockages.

• **Chelating Agents (EDTA, GLDA, HEDTA):**

Use: To control metal ions (especially iron Fe^{3+}) and prevent their precipitation as hydroxides or other insoluble salts, which can block pores after acid treatment. They can also be used as main stimulation fluids under certain conditions, being less corrosive and having a more controlled reaction.

• **Surfactants:**

o Use: To reduce the interfacial tension between the treatment fluid and the reservoir rock, or between gas and liquids trapped in pores. Helps improve treatment fluid penetration, prevent emulsion formation, and more efficiently recover fluids after treatment

A typical chemical matrix stimulation operation involves several steps:

1. Well Preparation: Well cleaning, target interval isolation (if necessary, using packers).

2. Pre-flush: Injection of a fluid (e.g., surfactant brine, dilute HCl, organic acid, or solvent) to displace formation fluids incompatible with the main treatment fluid, clean the formation face, and prepare the rock for reaction with the main acid. In the case of HF treatments, a pre-flush with HCl is essential to prevent HF from contacting calcium salts in the reservoir water, avoiding precipitation of CaF_2 .

3. Injection of Main Treatment Fluid: The selected acid or chemical solution is pumped into the formation at a controlled rate and pressure, below the fracturing pressure. The volume injected depends on the degree of damage and the desired depth of penetration.

4. Soak Time: Sometimes, after injection, the well is left closed for a set period of time to allow the chemical solution to fully react with the minerals in the formation. This is more common with slower-reacting acids or solvents.

5. Post-flush / Overflush: Injection of an inert fluid (e.g., saline, nitrogen water, methanol, or diesel) to displace reaction products and unconsumed treatment fluid beyond the critical zone around the well and restore relative gas permeability.

6. Production: The well is gradually reopened to clean out residual treatment fluids and reaction products and to evaluate stimulation efficiency.

Chemical matrix stimulation is a valuable technique for maintaining and improving the productivity of gas wells, when designed and executed correctly.

Results

Acid matrix treatment of horizontal wells has particularities due to the long productive interval exposed to the formation:

- Reducing the positive skin: Through the mechanisms mentioned above, the acid cleans the area around the horizontal section, reducing flow restrictions. An effective treatment will transform an initial positive skin (e.g., $S=+5$) into a lower one (e.g., $S=+1$ or $S=0$).
- Creating a negative skin: Ideally, the treatment should result in a negative skin (e.g., $S=-1$ to $S=-4$ or even lower, especially in carbonates). This indicates that the area around the well has become more permeable than the rest of the formation.

CONCLUSION

The effectiveness of matrix acid treatment and the final skin value are usually evaluated by well tests, such as pressure buildup tests or pressure drawdown tests. Analysis of the data from these tests allows the calculation of the skin factor and other reservoir and well parameters. A comparison of the skin before and after treatment indicates the success of the operation.

In conclusion, a successful matrix acid treatment of a horizontal gas well should lead to a significant decrease in the skin factor, ideally to negative values, reflecting an improvement in the hydraulic connection between the well and the reservoir and, implicitly, an increase in the production capacity of the well

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Modeling the Effects of Accidents on Employees during Testing of Flare Preventers

Daniel Iancu

Ph.D. Student, Petroleum-Gas University, Romania

Al-Gburi Hasan Ali Mosleh

Ph.D. Student, Petroleum-Gas University, Romania

Lect. Dr. Doru Bârsan

Petroleum-Gas University, Romania

Prof. Dr. Timur Chis

Petroleum-Gas University, Romania

Abstract

The testing of blowout preventers for oil and gas wells is carried out according to API 16 A standards, which consists of performing the hydrostatic, closing test, mandrel test for horizontal blowout preventers and tests for the hydraulic drive system (as an integral part of the preventer or delivered separately) and consists of performing the hydrostatic (strength) test of the drive system body, the analysis of the closing of the horizontal preventer jaws, the closing test of the preventer at minimum pressure, equipped with a fixed hole and/or variable hole jaw, the closing test of the preventer at minimum pressure, equipped with a total jaw, the cutting and sealing test of the total cutting jaw of the horizontal preventer, the mechanical locking test of the fixed hole jaw with minimum pressure in the preventer body and the mechanical locking test of the variable hole jaw with minimum pressure in the preventer body. In the article, we conducted a study on the effects of pressure tests on employees.

Keywords: Blowout preventers, modelling, well

I. INTRODUCTION

This article was started from the need to understand and describe the phenomena that occur as a result of the malfunction of blowout preventers.

Starting from the unfortunate experiences in the last period of time, when there were several uncontrolled eruptions that were largely due to the malfunction or non-functioning of blowout preventers, in the paper I wanted to analyze the effects of these dysfunctions on the structure of the technological installation and the environment.

It should be noted that the latest technical incidents of malfunctioning blowout preventers led to fires (Satu Mare, Romania) or explosions, pollution and damage to the structure of the marine platform (Deepwater Horizon).

The analysis of the causes that led to the propagation of these eruptive manifestations led to the determination of the moment when they can occur, namely:

- a. During the crossing of the productive layer, as a result of the penetration of fluids that saturate this layer into the drilling fluid,
- b. As a result of the pressure variation during the extraction maneuver of the drilling set,
- c. As a result of performing pistoning or sleeve operations on the productive layer and/or the casing string,
- d. As a result of the loss of drilling fluid during rock dislocation operations (as a result of its penetration into the productive layers) and its complete isolation,
- e. As a result of the use of an eruption preventer, unclassified or inappropriate, for the pressure class in the well,
- f. During perforation or operations to increase the productivity of the wells,
- g. As a result of erosion/corrosion of the drill tubing or casing strings and therefore the occurrence of unscheduled multiphase fluid leaks,
- h. As a result of failure of the sealing gaskets at the flanges of the strings or the eruption heads (occurrence of fluid leaks in the form of a jet).

Also, fluids that could erupt may consist of:

- a. Natural gas associated with productive or exploration deposits,
- b. Crude oil,
- c. Water associated with the deposit penetrated by drilling,
- d. Sand and traces of rocks dislodged by drilling,
- e. Components of the drilling fluid (chemical products, biological products, components to increase the capacity of the productive layer, elements to reduce the permeability of the drilled layer, etc.),
- f. Dislodged elements from equipment (metallic or other) damaged as a result of the uncontrolled flow of fluids from the erupting wells.

The way an uncontrolled eruption occurs is primarily due to the fact that during drilling (during the passage of a layer saturated with fluids under pressure), a pressure imbalance usually occurs (between the hydrostatic pressure of the liquid column in the well and the pressure under which the fluids in the layer are located).

If the hydrostatic pressure of the liquid column is lower than the pressure in the layer, the fluids in the layer penetrate the liquid in the well, leading to a sharp decrease in the hydrostatic pressure of the liquid column at the layer level (due to the diffusion of gas particles into the drilling fluid).

It has been observed that fluids that saturate the layer can penetrate the drilling fluid even if the hydrostatic pressure of the liquid column in the well (at the

layer level) is higher than the pressure at which the fluids that saturate the layer are found (due to the gasification of the drilling fluid by the adsorption of gases on the surface of colloidal clay particles in the drilling fluid).

In the case of saturation of the productive layer only with the liquid phase (no free or in solution gases), a decrease in the specific gravity of the drilling fluid is observed (which can be corrected) and which is due to the diffusion of liquid particles due to the density variation between the two fluids in contact.

II. MATERIALS AND METHOD

In the following, we conducted a study on the effects of pressure tests on employees.

The study of the pathways of gas penetration into drilling fluids allowed me to conclude that they lead to the gasification of the drilling fluid and are due to:

- a. Dissolution of gases in the free water in the drilling fluid,
- b. Bubble diffusion,
- c. Adsorption on the surface of colloidal particles,
- d. Dislocation of rocks by the drill bit and the penetration of gases into the fluid,
- e. Effusion processes.

We analyzed the effects of test pressure on the environment in the event of a rupture or leak of the test equipment (blowout preventer).

For testing, we took oil-water (fuming sulfuric acid) $\gamma\text{SO}_3\text{-H}_2\text{O}$ with a concentration of 1%.

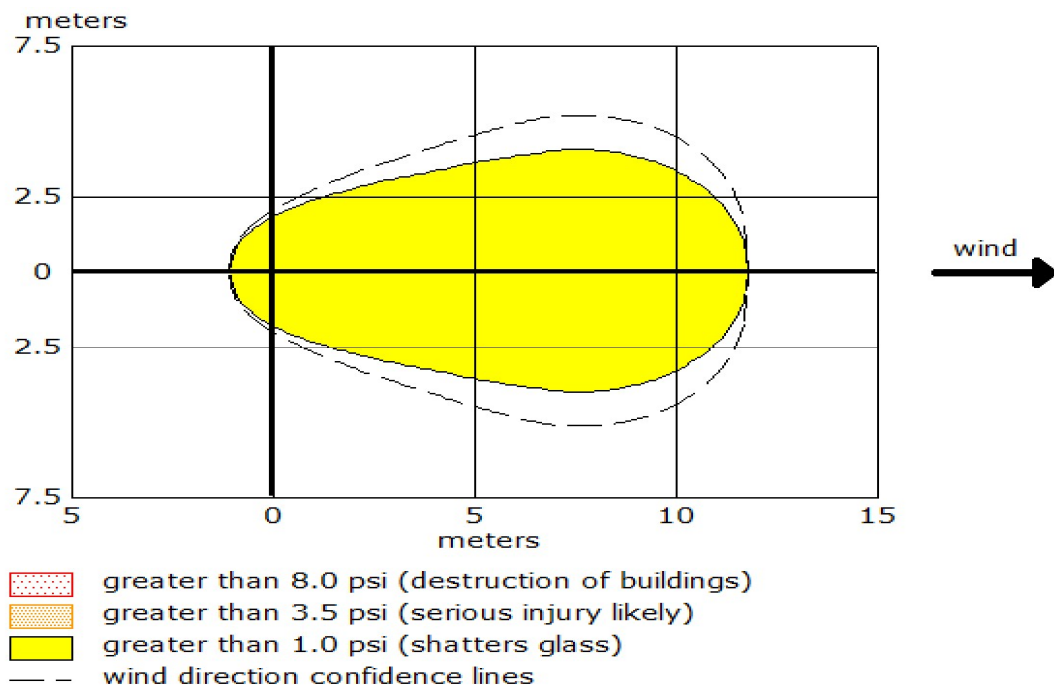


Figure 1. Effects of a failure on the environment at 100 atm pressure (BOP test)

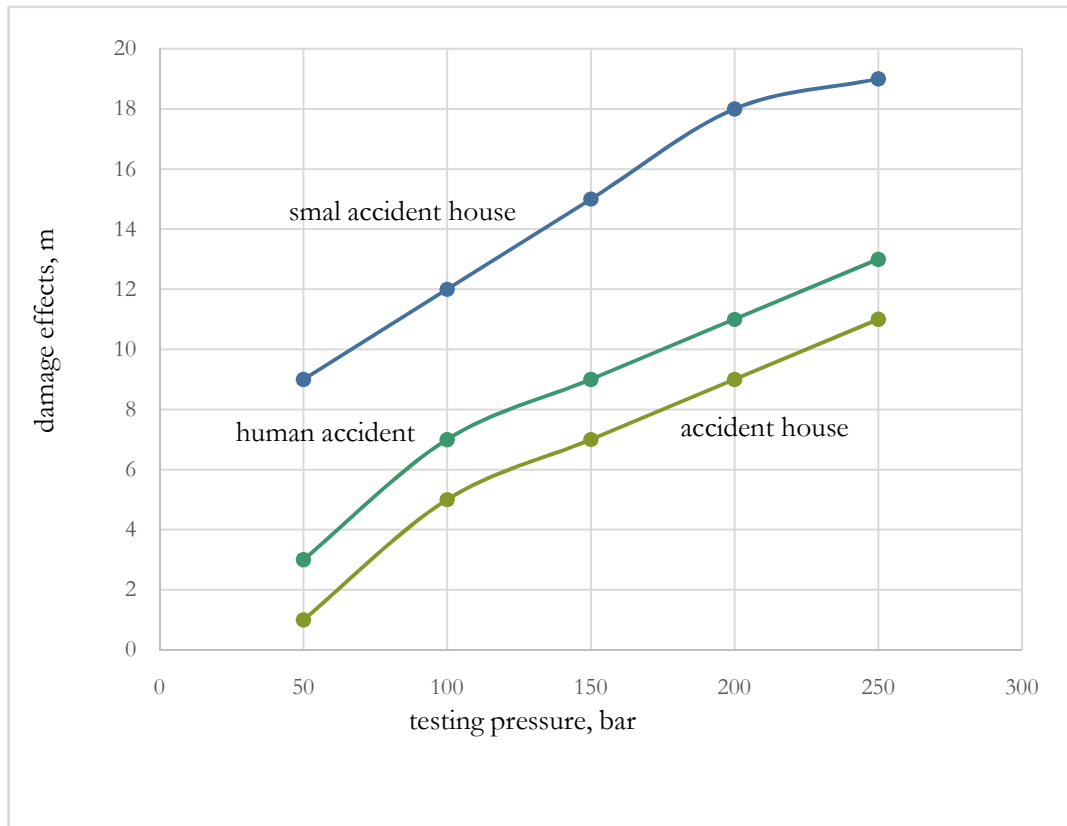


Figure 2. Effects of a 1 cm diameter damage on the environment (BOP test)

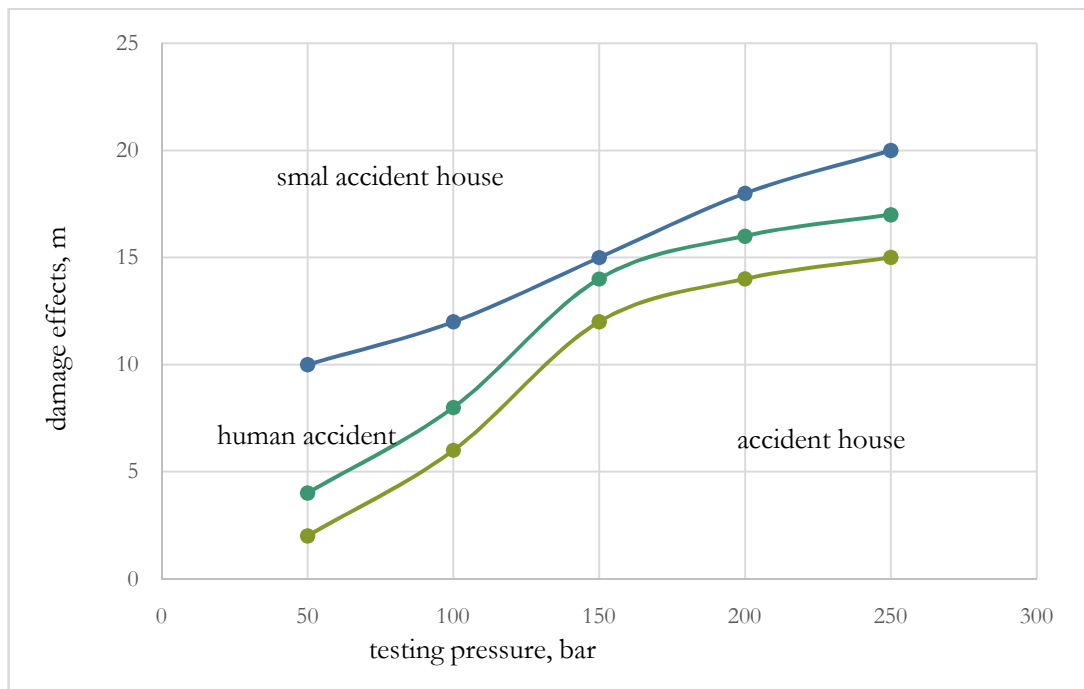


Figure 3. Effects of a 2 cm diameter damage on the environment (BOP testing)

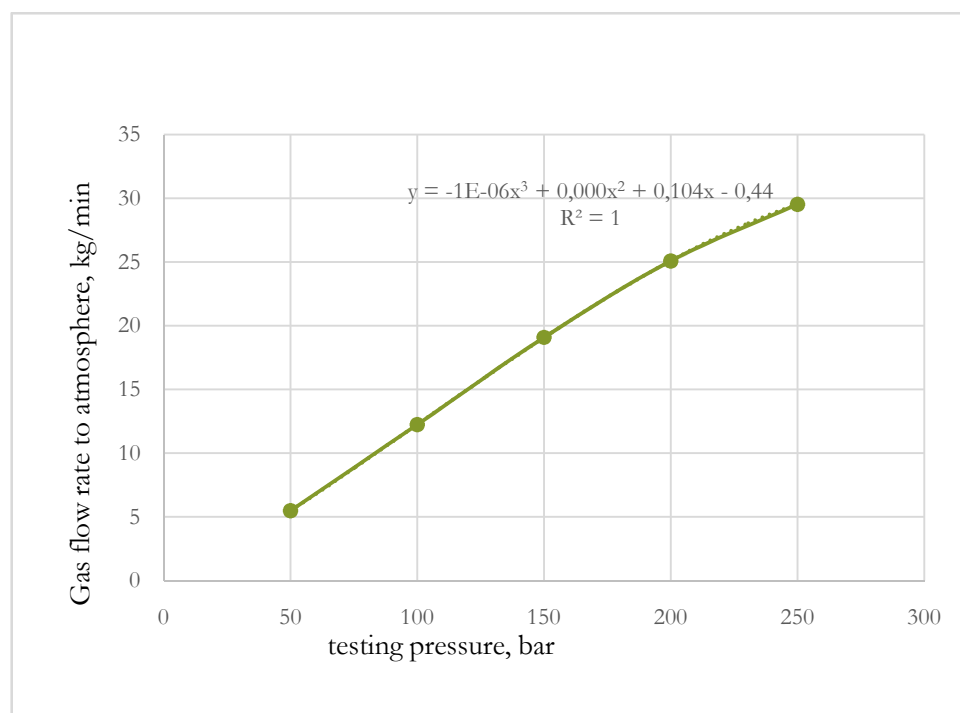


Figure 4. Effects of a failure on the leakage of fluids from the BOP at a diameter of 2 cm (BOP testing)

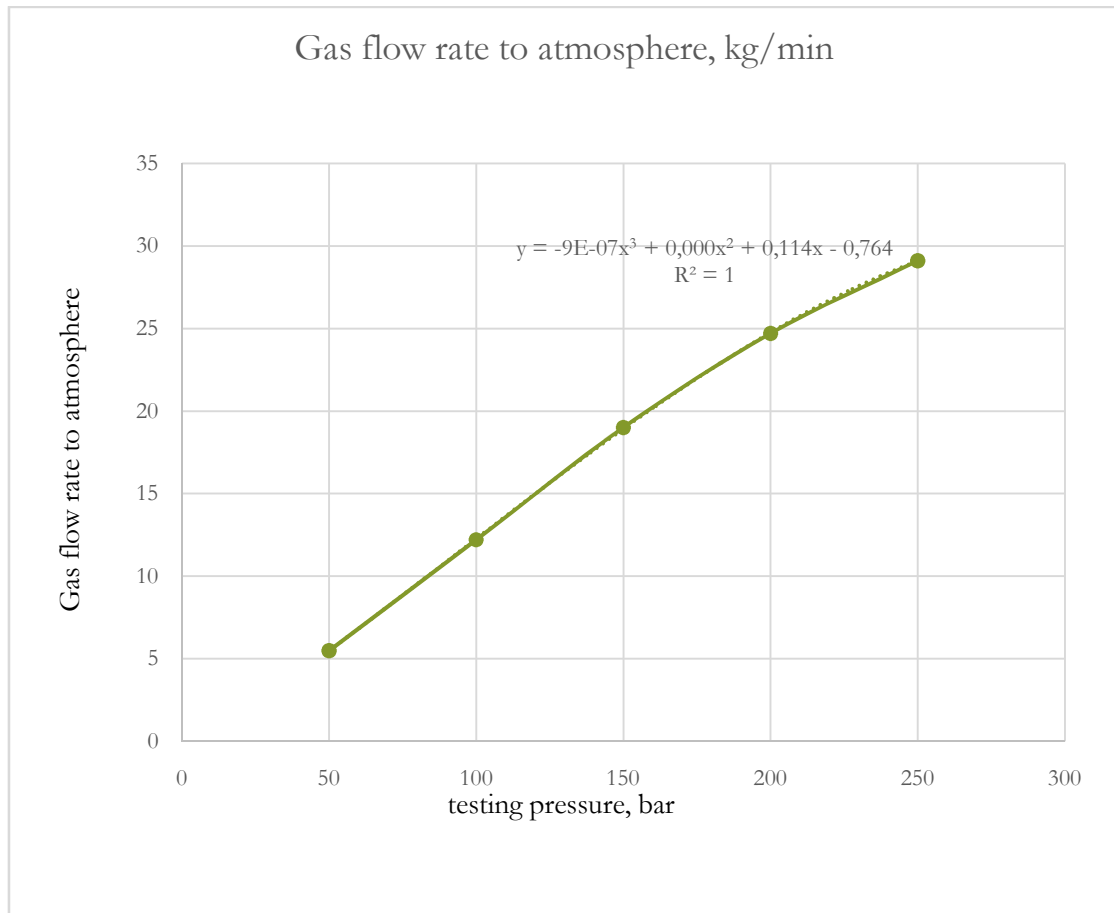


Figure 5.6. Effects of a failure on the leakage of fluids from the BOP at a diameter of 1 cm (BOP testing)

The equations for the variation of the amount of liquid leaked into the atmosphere according to pressure and diameter are:

$y = -1E-06x^3 + 0,0003x^2 + 0,1043x - 0,44$ at a damage diameter of 2 cm, (y is the amount of liquid drained kg/min),

$y = -9E-07x^3 + 0,0003x^2 + 0,1144x - 0,764$ at a damage diameter of 1 cm, (y is the amount of liquid drained kg/min).

It is very important to numerically determine the areas affected by the damage as a function of the pressure and the diameter of the damage.

Equation of the diameter of the building destruction zone (Y), m (ie the diameter of the damage zone) as a function of the test pressure (bar) (X1) and the diameter of the damage (cm) (X2).

$$Y = -5,3 + 0,058 X_1 + 3,2 X_2$$

Equation of the diameter of the human accident zone (Y), m (ie the diameter of the damage zone) as a function of the test pressure (bar) (X1) and the diameter of the damage (cm) (X2).

$$Y = -3,3 + 0,058 X_1 + 3,2 X_2$$

Equation of the diameter of the Zone where glass breaks and small material detachments can occur, m (Y), m (ie the diameter of the damage zone) as a function of the test pressure (bar) (X1) and the diameter of the damage (cm) (X2).

$$Y = 6,4 + 0,052 X_1 + 0,4 X_2$$

III. RESULTS

We also determined:

- The effects of a damage on the environment at a diameter of 1 cm (BOP test)
- The effects of a damage on the environment at a diameter of 2 cm (BOP test)
- The effects of a breakdown on the leakage of liquids from the BOP at a diameter of 1 cm (BOP test),
- The effects of a breakdown on the leakage of liquids from the BOP at a diameter of 2 cm (BOP test).

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**An Energy Efficiency Model based on Heat Pumps of a Public Building with
Conventional Heating**

Dan Cirjan

Ph.D. Student, Petroleum-Gas University, Romania

Ioana Purghele

Ph.D. Student, Petroleum-Gas University, Romania

Prof. Dr. Maria Stoicescu

Petroleum-Gas University, Romania

Prof. Dr. Timur Chis

Petroleum-Gas University, Romania

Abstract

Nowadays, the increase in energy prices from conventional sources and the implementation of environmental protection policies by reducing the carbon footprint have brought to the forefront the need to identify alternative solutions for producing energy from sustainable/renewable sources which, in addition to reducing energy costs, also ensure the reduction of the carbon footprint of buildings, installations or means of transport. In the context of sustainability and sustainable development, buildings must be considered as "organisms" in continuous evolution, which over time must be rehabilitated and modernized to meet the requirements established by the user in a certain period. Energy efficiency of buildings involves reducing the energy requirement while ensuring appropriate comfort conditions, achieving two important objectives of sustainable development: saving primary resources and reducing polluting emissions into the environment.

The paper presents an energy efficiency model based on the implementation of a complex heat pump system in an old 7000 sq m public building with conventional heating on the campus of the University of Petroleum and Gas in Ploiesti.

Keywords: energy saver, heat pumps, heat recovery

INTRODUCTION

The proposed system is unitary and based on heat pumps and completed with energy efficiency measures, it is sized to cover the basic requirements of the

university campus (the heating-cooling cycle of the body of approx. 7000 m² of an old building from the 80 s and the production of hot water).

The proposed system reduces energy consumption from organic fuels - natural gas - and pollutant emissions from current (conventional) heating systems.

The goal is to ensure low costs, in conditions of modern comfort, for didactic and accommodation use specific to the university campus, as well as to allow the achievement of additional income, through the paid training of specialists in energy efficiency and alternative energy.

In accordance with European and national commitments, as well as with the needs and aspirations of the institution and the Prahova administration, the UPG institute is committed to modernizing its energy systems by introducing a hybrid, modular system for producing renewable energy to serve its users.

Following the submission of this project to the Norwegian funding fund, UPG won financing of 85% of the project value.

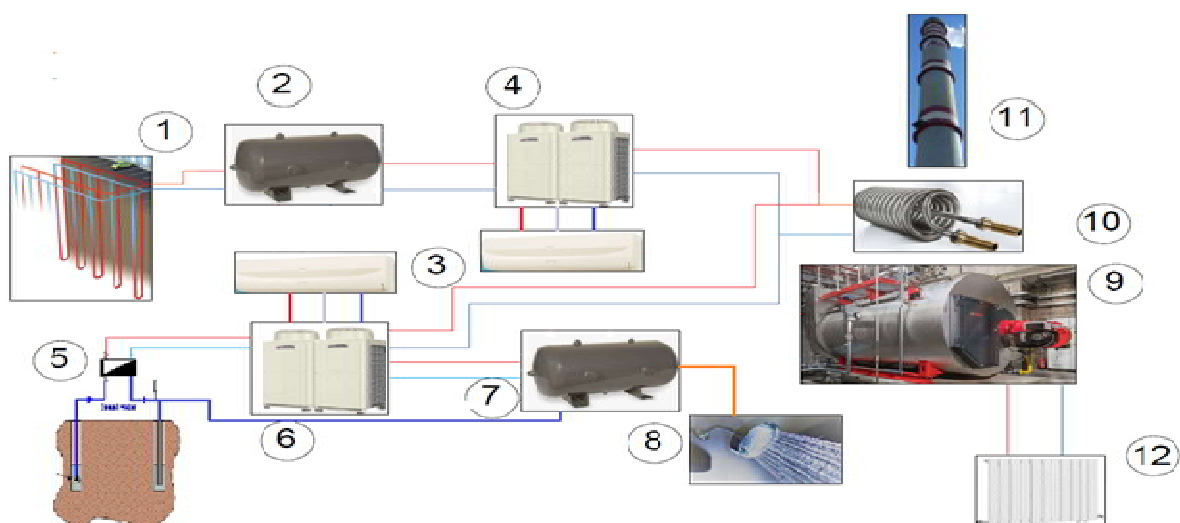


Fig 1. UPG Ploiești Quality of Life Improvement Project

1 – closed ground heat exchanger, new, 2 – storage tank, new 3 – fan coil units, new, 4 – heat pumps with double ground-water heat exchanger, new 5 – water wells, new, 6 – water-water heat pumps, new 7- hot water tanks campus, old 8 – hot water showers, old 9- heating boilers, old 10 – boiler chimney heat recovery units, new 11 – boiler chimney, old 12 – current campus radiators, old

The developed system is unitary and is based on heat pumps and energy efficiency measures, it is sized to cover the basic requirements of the campus and reduce energy consumption from organic fuels - natural gas - and pollutant emissions of current systems.

The goal is to ensure low costs, in conditions of modern comfort, for didactic and accommodation use specific to the campus, as well as to allow additional income, through paid training of specialists in energy efficiency and alternative energy.

A superior integration into the life of the locality, in the economic and social development of the area is achieved.

The maximum profitability of a system is given by its use as long as possible in the calendar year.

Thus, in the case of the UPG Ploiesti campus, the most constant energy consumer over the course of a year is hot water for dormitories and the cafeteria - sports complex ensemble, presented in the diagram above with position '8'.

METHODS AND DISCUSSION

This consumer, hot water at 45°C, has an approximately constant value over 12 months, of 500 thermal kW, with peak values 10-20% higher.

The production of hot water in the proposed project is ensured by an efficient and economical system - heat pumps -, represented in the diagram by positions '4' and '6', presenting the advantage of reducing consumption and pollution produced by the current 2.6 MW natural gas burners, large compared to the need for hot water, which determines the current policy of limiting the hot water program for dormitories and the impossibility of supplying hot water to laboratories, the sports complex and even the cafeteria (equipped with its own gas micro-boiler) during the period when the heating is not working.

The part of the project related to heating, which will be supplemented with cooling during the summer, also carried out with heat pumps, will use the fan-converters, position '3', which are equipped with the lecture, seminar and laboratory rooms included in buildings E and C.

In addition to use during the heating period in the cold seasons ~ 5 months, heat pumps allow use in the warm period for cooling ~ 2 months, as well as the comfortable use of spaces for activities providing additional income during the summer vacation of students ~ 1-1.5 months.

A good part of the auxiliary energy of the heat pumps comes from energy recovery.

Thus, in the winter months when the heating plant will operate, from the connections between the 3 existing gas boilers - position 9 - and the related chimneys - position 11 -, boilers equipped with burners of 2.6 MW nominal thermal - at least 200 kW thermal each can be recovered.

The outlet temperature of the flue gases on the chimney is currently higher than 260°C, without recovery measures, the current case.

Energy recovery can be done - with the recuperators position 10 -, without diminishing and affecting the combustion process designed for this type of boiler and burner, up to the flue gas temperature of 150 - 160 °C.

This gives a large amount of recovered heat, and the effect is, in addition to optimizing fuel consumption, reducing atmospheric heating, as well as reducing emissions.

The recovered energy is of particular utility for the project, dramatically reducing the need for drilling for the operation of heat pumps.

Thus, under local geothermal conditions, the 200 kW thermal energy recovered displaces approximately 4 water well drillings and related installations of 90 m depth, each equivalent to 120 kW thermal power.

As, with the onset of winter, more boilers come into operation, it is possible to estimate the recovery of an equivalent quantity of 350-400 kW thermal, which reduces dependence on energy from drillings, but also makes both the fuel consumption of boilers more efficient, as well as increasing the COP of heat pumps operating at high temperatures.

The summer period is also advantageous in the operation of heat pumps for refrigeration by providing the thermal agent with temperatures above 35°C for COP >5, through the operation of the proposed air-water pumps.

By combining space cooling with hot water heating, a reduced need for drillings is obtained, estimated at 2 units.

Systems are ensured flexibility and back-up by doubling them - the case of heat pumps, extraction wells, recovery exchangers on chimneys, storage and hot water tanks, boilers with their burners.

RESULTS

The technical performance of the project was:

- Installation of 720 kW water-to-water heat pumps
- Installation of 150 kW ground-to-water heat pumps
- Replacement of radiators with fan-coil units for 2 blocks of buildings, totaling over 7000 m² of construction for courses, seminars, workshops, offices
- Digital command and control platform for thermal systems
- Ecological production of thermal agent in the amount of 2,874 MWh per year
- Reduction of fossil fuel consumption - natural gas, namely 270,000 m³ of gas per year.
- Replacement of water consumption from the network with water from groundwater extraction of 100,000 m³ per year.
- Reduction of emissions of noxious gases by 661 to CO² per year.

All these systems are monitored and automated with a modern, digital integrated system, based on artificial intelligence for self-optimization in operation and safety, which will allow you to achieve production, efficiency, economy and depollution targets, with online presentation and operation.

The project consisted of installing a number of 12 water-to-water heat pumps with supply from 4 wells, 3 ground-to-water heat pumps with closed wells for capturing the heat of the earth and 3 installations for capturing heat lost on chimneys from the 3 current natural gas boilers of the university.

The entire set of heat pumps, their operation, measurement of parameters and control of the equipment, as well as the interfacing with the existing thermal system are ensured by the digital command and control system with which the project is completed.

The works consisted of the execution of 4 drillings at 90 m in the central-northern part of the university grounds, the execution of hydro installations to connect the wells with the heat pumps to the current thermal installation of the university, the

execution of 6 drillings for the closed wells of the heat pumps and the electrical and thermal connections of the new installations.

The drillings for the wells were carried out with authorized drilling rigs, by authorized companies, in the trench up to a depth of 90m, which is the final base.

The well equipment was in accordance with the regulations:

- pipes and filters of Ø140mm,
- borehole isolation at the level of the first groundwater infested with compaction,
- filter column of Ø140mm in front of aquifers 2 and 3,
- exploitation column of Ø140mm of length 90m and with valve in the decanter of Ø140mm at the bottom of the well, concreting at the entrance for fixing pipes and creating the bottom of the manhole,
- manhole of 1100x1100x1700mm with a cover mounted at a height of 400mm from the ground level to prevent flooding of the well.

The boreholes for the 100m thermal probes were equipped with Ø140mm downpipes, which, after installing the PEHD pipe probes (set of 4 Ø40mm pipes joined 2 by 2), were loaded with bentonite, concreted at the entrance and equipped with a 1000x1000x800mm thermally insulated manhole.

The boreholes for the 10m thermal probes were equipped with Ø800mm downpipes, in which the PEHD pipe probes were installed (Ø40mm pipe in a Ø700mm helical mount), after which they were loaded with bentonite, concreted at the entrance and equipped with a 1000x1000x800mm thermally insulated manhole.

The goal is to improve the university's thermal installation, use the extracted water for the institution's consumption, and use the financing obtained from Norwegian funds for this project.

CONCLUSION

An important characteristic of the geothermal areas in Romania is the temperature between 100 and 150°C at a depth of 3000 m. T

These characteristics allow the use of geothermal energy to produce electricity.

Since the temperature difference between the hot source 150° and the cold source 35° is small, the thermal machine that operates between these temperature limits will have a low efficiency, lower than thermal machines that use fossil fuels, but higher than photovoltaic cells.

Geothermal power plants can be designed and built to produce high powers.

Considering that the transformation of geothermal energy into electrical energy through a thermal machine that operates after a thermodynamic cycle does not require fossil fuels and is completely non-polluting, a lower efficiency of the installation can be accepted.

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An Treatment and Recovery of Petroleum Products Extracted from Polluted Water

Dan Cirjan

Ph.D. Student, Petroleum-Gas University, Romania

Ioana Purghele

Ph.D. Student, Petroleum-Gas University, Romania

Prof. Dr. Maria Stoicescu

Petroleum-Gas University, Romania

Prof. Dr. Timur Chis

Petroleum-Gas University, Romania

Abstract

Water pollution with petroleum products is a major environmental problem at a global level, with significant negative effects on aquatic ecosystems and human health [1].

In the current context of the energy crisis and the need to find alternative energy sources, the recovery and valorization of petroleum products from polluted waters becomes an attractive solution from both an ecological and economic point of view [2].

The particular cases of waters polluted with petroleum products treated with gas nanobubbles described in the previous chapters – polluted waters from rivers and lakes, polluted municipal waters, polluted waters from landfills, polluted waters from mines are addressed in the present chapter for the further treatment and valorization of the isolated petroleum product in the presented cases.

This paper presents an integrated approach for the treatment of waters polluted with petroleum products, followed by the energetic valorization of the recovered petroleum products. The described process includes separating traces of petroleum products from polluted water, cleaning the petroleum concentrate, treating it by low-temperature pyrolysis-gasification to produce synthesis gas, and finally using the synthesis gas in a cogeneration system to produce electricity and heat.

Keywords: pollution, environments, petroleum

INTRODUCTION

Water pollution with petroleum products is a major environmental problem at a global level, with significant negative effects on aquatic ecosystems and human health [1]. In the current context of the energy crisis and the need to find alternative energy sources, the recovery and valorization of petroleum products from polluted

waters becomes an attractive solution from both an ecological and economic point of view [2].

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This paper presents an integrated approach for the treatment of waters polluted with petroleum products, followed by the energetic valorization of the recovered petroleum products.

The described process includes separating traces of petroleum products from polluted water, cleaning the petroleum concentrate, treating it by low-temperature pyrolysis-gasification to produce synthesis gas, and finally using the synthesis gas in a cogeneration system to produce electricity and heat.

MATERIALS AND METHOD

Nanobubble flotation is an advanced technology for separating petroleum products from water, offering high efficiency and low environmental impact [3]. Nanobubbles, with typical sizes between 50-200 nm, are generated in polluted water, where they attach to hydrocarbon particles, forming agglomerates that rise to the surface, from where they can be easily collected [4].

Advantages of nanobubble flotation:

- High separation efficiency, even for fine hydrocarbon emulsions [5],
- Low energy consumption compared to conventional flotation techniques [6],
- Possibility of continuous operation [7],
- Minimal impact on the quality of the treated water [8].

Implementation and Optimization

1. Nanobubble Generation: Use of specialized devices such as cavitation nanobubble generators or microfluidics [9]
2. pH and temperature control: Optimization of these parameters to maximize separation efficiency [10]
3. Retention time: Adjustment of the contact time between nanobubbles and hydrocarbon particles [11]
4. Oil product collection: Implementation of efficient skimming systems at the water surface [12]

Surface absorption using a Platane device is an effective method for separating petroleum products from the surface of polluted water [13].

The Platane Surface Absorption Device is a floating structure designed to effectively separate petroleum products from the surface of water. The main components include:

1. Inlet "mouth": Located 1-3 mm below the surface of the liquid, allowing the water-petroleum mixture to enter [14].
2. Stacked Cones: A series of vertically arranged "witch's hat" cones that facilitate gravitational separation [15].

3. Pumping System: A low-speed propeller to discharge the separated water [16].

4. Collection Compartment: The upper area of the device where the separated petroleum products accumulate.

5. Closure and evacuation mechanism: Allows the isolation and evacuation of accumulated petroleum products.

Corroborating this information and the product developed by the Surfcleaner company [13], the author developed the following floating system for collecting-separating-concentrating-evacuating petroleum products from water polluted with these products, presented in figure 1.

This system in the author's version can be used both in a fixed system, within a stable installation, mounted in a calming and settling basin for polluted waters. The same device can also be mounted under the deck of a catamaran of the type proposed in chapter 2 for treating lake waters with gas nanobubbles. The oil product separation/collection treatment is the first applied in the cycle of polluted water treatments because oil products can be recycled if they are in justifiable quantities, because oil products not separated from polluted waters alter and prolong the treatments for purification, cleaning of hazardous chemical compounds, algae from polluted waters.

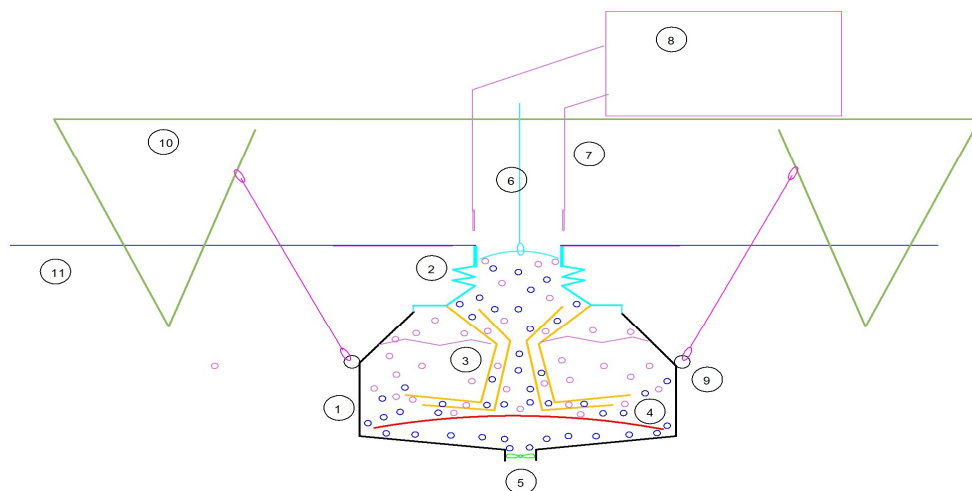


Fig. 1 Device for collecting, separating and concentrating petroleum products from polluted water in the collection/separation stage

The separation process is carried out in the following stages:

1. Intake: The mixture of water and petroleum products enters the device (1) through the intake "mouth" (2) located a few mm below the level of the polluted water (11), also driven by the light absorption current created by the pump/propeller (5).

2. Gravity separation: The liquid crosses the overlapping cones, where the heavier water bypasses the edges of the cones (3) and (4), while the lighter petroleum products rise into the separation tank [17].

3. Collection: The petroleum products accumulate in the upper part of the device.

4. Water discharge: The separated water is pumped out of the device through the propeller system (5).

5. Oil product discharge: When the device is full, the propeller (5) changes the direction of rotation, the "mouth" (2) is raised with the cable (6), closing the inlet (7), and the oil products are discharged through a hose into the collector (8). Figure 2.

6. The device can be mounted under the catamaran (10) that floats and moves in the affected areas with anchors (9), or it can be mounted in the stilling and settling basin of the fixed treatment facilities.

The collection/separation/concentration device, innovated and dimensioned by the author, is made of common materials. The properties of these materials are: resistance to corrosion, to contact with petroleum products, to exposure to UV radiation, low density, non-adhesion of petroleum products to be easy to remove. Thus, the body of the device, the discs, the fixed cover, the exhaust pipe, the propeller are made of high-density polyethylene, and the movable, embossed cover is made of silicone rubber. The movable cover is the component that closes the device, but allows it to operate in the following positions: absorption - the fixed cover is below the level of the polluted water - and the discharge operating position - the fixed cover is above the level of the polluted water -. The device with dimensions of $\varnothing 600 \times 800$ mm can collect in 15 minutes 60 l of petroleum product residue concentrate with a concentration of 92-95% with water, reaching the capacity to collect 120-150 l of residue per hour, material that will be processed with the equipment described later in the chapter.

Advantages of the "platen" type device

- High efficiency in separating petroleum products from the water surface [18]
- Continuous operation with automatic filling and emptying cycle
- Low energy consumption due to the use of gravity principles and low-speed propeller
- Adaptability to different types of petroleum products and water surface conditions
- Minimization of secondary water contamination during the separation process

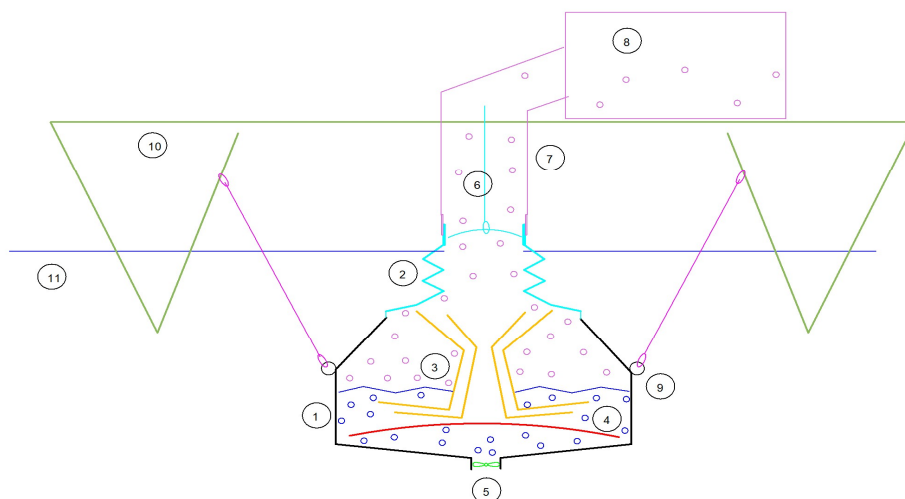


Fig. 2 Device for collecting, separating and concentrating petroleum products in the evacuation/storage stage

Optimization and Implementation

1. Cone Design: Optimizing the angle and spacing of the cones for maximum separation efficiency [19]
2. Inlet Depth Control: Fine-tuning the position of the inlet "mouth" to maximize oil capture
3. Cycle Timing: Optimizing the fill and drain times based on the rate of oil accumulation
4. Materials: Selecting corrosion-resistant and oil-compatible materials [20]
5. Scalability: Designing devices of different sizes to accommodate various pollution scenarios.

Cleaning of petroleum concentrate

Cleaning of petroleum concentrate obtained from separation processes is a crucial step for obtaining a high-quality product, suitable for subsequent valorization processes [21].

The authors continues the process of recycling petroleum products after obtaining the collected-separated-concentrated material from the polluted water resulting from the device through hybrid treatment, exposure to intense magnetic field, heating and ultrasound.

The effect is to evaporate part of the water from the petroleum products in question, and part of the water separated on the bottom of the containers is collected, reprocessed in the system to separate from the rest of the petroleum products still attached, and finally introduced into the water treatment subsystem for emission into the outfall.

The technological process of this subsystem is as follows:

The petroleum products recovered from the surface of the water body or from the stilling tank are transported to the treatment and energy production location (in the case of collection in other locations) with the transport container. In the case of processing wastewater polluted with petroleum products, or water from landfills, there is no this stage of moving the petroleum concentrate to the treatment location.

The active element that introduces petroleum products into the separation installation is pump 1, thus petroleum products in a concentration of 90-95% with water begin treatment in the pre-treatment tank by heating to a temperature of 40-60 °C with 3x1kW electrical resistances and energizing with NdFeB grade N48 permanent magnets with a magnetic gradient of 0.8-1 Tesla/cm, mounted on opposite side walls, effective separation area 80% of the volume, 316L stainless steel walls.

Minimum treatment time of 11 minutes at 0.3m/s flow and 2-3 bar pressure, but for process continuity, the processing time will be 16 minutes, similar to the treatment times of pool 2.

At the end of the treatment time in basin 1, pump 2 is started from the separation of the first basin for evacuation into basin 2. Separated water is collected at the bottom of basin 1 in this basin, water that still contains oil particles and which, after treating a volume of 200l of oil mixture, reaches a volume of 3-5l. This is initially evacuated into a water residue collection basin similar to the water in basins 2 and 3, water that is also treated on this line after collecting a quantity of 180-200l, for additional separation of the retained oil and which is finally sent to the water treatment system with traces of pollutants with ozone, oxygen and CO2 nanobubbles until the stage of depolluted water at the level of release into the outfall or, as the case may be, at the level of irrigation of agricultural crops.

In treatment tank 2, the petroleum product (concentration 95-96%) with a low water content and 4-5% contaminants is subjected to ultrasonic radiation in the 20-40kHz frequency band, with the facility to adjust the frequency and amplitude of the signal to set the specific resonance frequency of the mixture through the PLL circuit, necessary for optimal separation of the petroleum product from water and contaminants. Operating time 16 minutes at 200W ultrasound power, 20-40kHz frequency band, 0.3m/s flow speed, 2-3 bar pressure and 40-60°C liquid temperature. From tank 2, pump 3 sends the petroleum product with a concentration of 97-98% with water and contaminants to tank 3 for settling and gravity separation.

In the gravity separation tank 3, water is separated in a proportion of 2-3% from the concentrated petroleum product, treated in the previous tanks. The treatment time in this tank is also 16 minutes, for the continuity of the process. After the time has expired, pump 4 extracts from the upper part the resulting petroleum product with a concentration of 98-99% and 1-2% water and contaminants to be sent to the contaminant separation section from the recycled petroleum product.

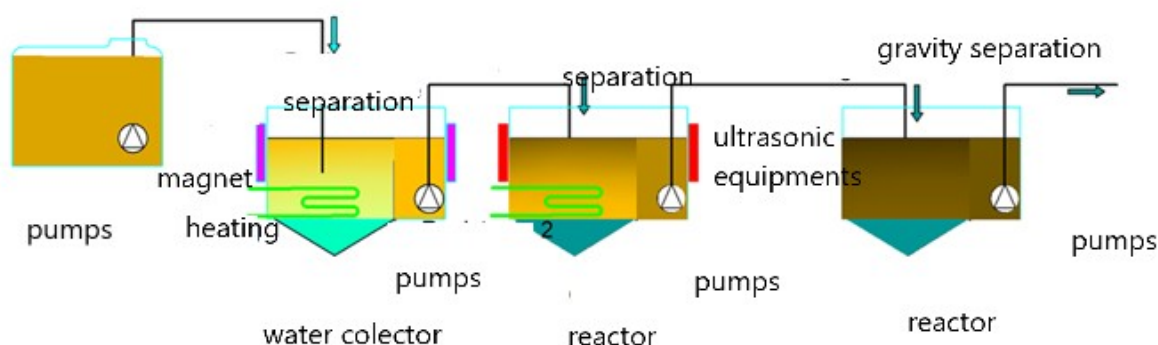


Fig. 3 Schematic of the subsystem for separating concentrated petroleum products from water from collected residues

CONCLUSION

This integrated approach to treating water polluted with petroleum products and their energy recovery offers a promising solution for:

- Reducing water pollution,
- Recovering valuable resources,
- Producing clean energy,

The implementation of these technologies on an industrial scale can significantly contribute to:

- Improving resource management,
- Reducing environmental impact,
- Transitioning to a circular economy in the energy sector.

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-Fuzzy Logic-Based MPPT Approach for Optimizing Photovoltaic Pumping System Performance

Mohammed-BOUTAYBI

PhD Student, National School of Applied Sciences of Oujda, Morocco

Prof. Dr. Yamina-KHLIFI

National School of Applied Sciences of Oujda(ENSAO),UMP, Morocco

Abstract

This study presents a comparative analysis of two MPPT control strategies aimed at achieving optimal regulation of the output voltage from a photovoltaic (PV) module and effective maximum power point tracking under varying irradiance levels, fluctuations in the speed of a permanent magnet DC motor, and changes in mechanical load torque within a PV water pumping system. The conventional MPPT technique, Perturb and Observe P&O, which generates a reference voltage, is compared with an artificial intelligence-based approach: Fuzzy Logic Control of the Mamdani type (FL-Mamdani).

The system under investigation consists of a PV generator connected to a Boost-type DC-DC converter that powers a motor-pump assembly. The key performance indicator for comparison is the extracted power under rapidly changing irradiance conditions. All control algorithm designs and simulations were carried out using the MATLAB/Simulink environment.

The results demonstrate that the FL-Mamdani controller offers superior efficiency and robustness compared to the classical P&O method. This intelligent control approach significantly enhances system responsiveness and stability, particularly during abrupt irradiance variations.

Keywords: MPPT, P&O, FL-Mamdani, MATLAB/Simulink, motor-pump

Towards a Framework for Bilevel Optimal Control Problems

Mohamed Oussama KERRAS

Phd Student, University Oran 1 Ahmed Ben Bella, Algeria

Prof. Dr. Khadra Nachi

University Oran 1 Ahmed Ben Bella, Algeria

Prof. Dr. Alain Bertrand Zemkoho

University of Southampton, United Kingdom

Abstract

This work presents a bilevel optimization framework for robust control design in the presence of adversarial disturbances. The formulation consists of an upper-level parameter optimization problem coupled with a lower-level minimax control problem governed by dynamic state constraints. Two principal reformulations are proposed. The first employs an implicit function-based approach to derive sensitivity relations from the lower-level solution mapping, elucidating the influence of design parameters on the robust control equilibrium. The second is a Karush-Kuhn-Tucker (KKT) reformulation that recasts the bilevel problem as a single-level optimization with equilibrium constraints. The proposed analysis establishes verifiable optimality conditions that effectively address the nonsmooth nature inherent in minimax control structures. This theoretical framework offers novel tools for robust control co-design, providing explicit characterizations of the interaction between system parameters and worst-case disturbance rejection. Overall, the work advances the mathematical foundations of bilevel optimization in control engineering contexts where robustness guarantees are essential.

Keywords: Bilevel optimization, robust control, minimax problems, implicit function theorem, KKT optimality conditions

**The Galileo Satellite Navigation System: Structure and Its Role in Satellite Navigation,
and Challenges in Precise Positioning**

Asst. Prof. Dr. F. Nobakht-Ersi

Urmia University, Iran

Asst. Prof. Dr. A. Shahamat

Tabriz University, Iran

Abstract

Galileo is the European Union (EU) and the European Space Agency (ESA) Global Positioning System, developed to provide precise positioning, navigation, and timing services under civilian control across the globe. The positioning and navigation algorithms are functionally equivalent to that of the Global Positioning System (GPS) theory and principles. This contribution is aimed to investigate the structure, advantages, and challenges of the Galileo system in positioning applications. Furthermore, Galileo's system design, signal reliability, and operational performance are analysed using ESA documentation and comparative data with GPS. An in-depth comprehension of Galileo's potential and influence in the evolving environment of global navigation technologies is also provided. It is discussed that Galileo significantly improves different types of global navigation however, it requires further developing infrastructure and coordinating policies to attain its full potential.

Keywords: Galileo, GPS, Positioning, Navigation, ESA

A Comprehensive Literature Review of Kinetic Facades in Commercial High Rise Buildings

Asst. Prof. Sneha Satyanarayana Reddy

GITAM (Deemed to be University), Hyderabad, India

Dr. Janmejy Gupta

School of planning and architecture, Vijayawada, India

Abstract

Achieving optimal thermal comfort, daylighting and operational energy usage in commercial high-rise buildings in India is becoming more difficult due to urban congestion and energy demand rise. In order to increase the energy efficiency of commercial high-rise buildings, this research explores the use of kinetic facades as a responsive element. A thorough literature analysis and a comparison of commercial high-rises with and without kinetic facades are two of the many layers of this study's methodology. In order to support sustainable development and national energy efficiency goals, the report ends with policy proposals for ECBC to include kinetic facades into India's future commercial buildings.

Keywords: Energy efficiency, Commercial, Kinetic facades, India

Effect of Multisensory False Memories on Episodic and Semantic Memory and Amnesia in Patients with Hippocampal Lesions

Khansa Furqan

Foundation University Islamabad, Pakistan

Asst. Prof. Dr. Muhammad Aqeel

Foundation University Islamabad, Pakistan

Abstract

The hippocampus plays a crucial role in the formation of episodic memory, spatial navigation, and emotional regulation. Damage to hippocampus may lead to cognitive and emotional deficits, particularly episodic and semantic memory impairments. Previous researches have done extensive research on hippocampal dysfunction, but the role of multimodal false memory induction in individuals with acute hippocampal lesions is yet to be explored. This study explored the effects of sequential (first and second order) false memory induction (visual, auditory, and combined modalities) on episodic memory retrieval, semantic association and recognition, and amnesiac symptoms in patients with acute hippocampal damage as compared to healthy individuals. This study uses a temporal, double-blind, mixed within-group and between-group randomized block design with event-related tasks. This study recruited Sixty participants (Acute Hippocampal damage patients n=30; healthy individuals n=30), age ranged from 18 to 65 years, from multiple hospitals. Thirty participants with acute hippocampal damage were recruited from the neurology department of Fauji Foundation Hospital, Pakistan, where the experiment was conducted using the Psychopy Software. The thirty healthy participants were recruited at the Cognitive and Neuroscience Lab within the psychology department at the Foundation University School of Science and Technology (FUSST). Three standardized cognitive tasks were used to examine episodic and semantic memory and amnesia in patients with acute hippocampal lesions. The findings revealed that individuals with hippocampal lesions showed heightened susceptibility to false memories, especially with combined auditory-visual stimuli. Particularly in episodic memory retrieval, whereas semantic memory tasks suggested potential regulatory factors. Whereas, healthy individuals depicted consistent decline in performance across tasks during false memory induction. These findings highlight the hippocampus critical role in defying false memory formation and focus its interactions with other neural systems in memory reconstruction.

Keywords: Multisensory False Memory, Episodic Memory, Semantic Memory, Amnesia, Acv Hippocampal Damage Patients, Healthy Individual

Assessing the Risks that Hinder the Sustainable Development of Forest Ecosystems in Algeria

Dr. Senni Rachida

Université de Djelfa, Algeria

Prof. Dr. Khéloufi Benabdeli

Université de Mascara, Algeria

Prof. Dr. Benamar Belgherbi

Université de Mascara, Algeria

Abstract

It is widely admitted that controlling the sustainability of forest and peri-forest ecosystems necessarily involves identifying physical and biological indicators that make it possible to assess the status of these ecosystems. When these indicators are considered alone, they only provide partial information. For this reason, it is deemed more appropriate to also use biophysical, anthropogenic and technical indicators which must report on the state of the environment (state indicators), its evolution (state change indicators), and its health (alert indicators).

For the purpose of better understanding and managing the dynamics of forest ecosystems in semi-arid zones with the view of ensuring their sustainability, it is deemed necessary to develop a reference matrix that can be used to identify dangers and risks. This matrix would include relevant indicators that are easy to assess and monitor. It should bring together all the potential indicators that can serve as guides. A score is then given to each of these indicators, depending on the role it plays in sustainability. The ratings are: 1: Bad, 2: Good, 3: Very good. The selected indicators, which are 20 in number, are then classified into three categories, i.e. technical, ecological and organizational categories.

Moreover, the identification and evaluation of these indicators helps to better understand their state-response and, consequently, to propose solutions or alternatives to their preservation as part of sustainable management.

The results obtained, using the failure modes and effects analysis (FMEA) approach, suggest that the major risks hindering the sustainable development of forest ecosystems in Algeria are in the following order of decreasing importance: Lack of professionalism; Use of inappropriate techniques; Insufficient studies on the subject; and Poor management.

Keywords: Management, Matrix, Risks, Sustainability, Forest ecosystems, Algeria

Spatial Changes and Sustainable Development Strategies of a Steppic Ecosystem in the South of Tlemcen, Algeria

Mutations spatiales et stratégies de développement durable d'un écosystème steppique dans le sud de Tlemcen, Algérie

Prof. Dr. Driss Haddouche

Tlemcen, Algeria

Dr. Abdelmalik Tounkob

Tlemcen, Algeria

Mohammed El Amin Ennebati

PhD Student, Tlemcen, Algeria

Abstract

This study aims to analyze and propose solutions for the preservation of the steppe ecosystem in the southern region of Tlemcen. This area, characterized by an arid to semi-arid climate, faces major challenges, including land degradation, desertification, and biodiversity loss, exacerbated by human activities such as intensive agriculture, growing urbanization, and climate change.

The use of a diachronic study, based on the analysis of satellite images (2001, 2011, and 2021), allowed for the mapping of changes in land use and vegetation cover over the past twenty years.

The results show a significant decrease in grazing land areas, which fell from 49% to 25% of the total area during the period [2001 – 2021], and an increase in bare soil areas, which rose from 31% to 59% for the same period, revealing severe degradation of the steppe ecosystem. The rapid growth of livestock, particularly sheep, has led to overgrazing, with five (05) sheep per hectare, worsening vegetation cover degradation and rendering the grazing lands incapable of supporting current pressures. Thus, land use and vegetation cover maps, generated from remote sensing and geographic information system (GIS) data, are valuable tools for understanding land use changes and their impacts on vegetation. They provide detailed information on areas affected by degradation, enabling managers to implement targeted measures for the rehabilitation and conservation of affected lands. As part of the fight against desertification and to address this unfortunate situation, it is recommended to implement sustainable agricultural and pastoral practices. This includes delimiting and rotating grazing areas, adopting soil conservation techniques, and creating vegetation barriers. Raising awareness among local communities and integrating their traditional knowledge is also essential to ensure the sustainability of this fragile ecosystem.

Keywords: Steppe ecosystem, Spatial analysis, Diachronic study, Desertification, Sustainable management, Tlemcen, Algeria.

Resume

Cette étude vise à analyser et à proposer des solutions pour la préservation de l'écosystème steppique dans le Sud de Tlemcen. Cette région, caractérisée par un climat aride à semi-aride, fait face à des défis majeurs, notamment la dégradation des terres, la désertification, et la perte de biodiversité, exacerbés par des actions humaines, tels que l'agriculture intensive, l'urbanisation croissante et le changement climatique.

L'utilisation d'une étude diachronique, basée sur l'analyse des images satellites (2001, 2011 et 2021), a permis de cartographier les changements dans l'occupation des sols et le couvert végétal au cours des vingt dernières années.

Les résultats obtenus montrent une diminution significative des superficies de parcours passant de 49 % à 25 % de la superficie totale durant la période [2001 – 2021] et une augmentation des zones de sols nus, passant de 31 % à 59 % pour la même période, révélant une dégradation sévère de l'écosystème steppique. La croissance rapide du cheptel, notamment des ovins, a conduit à une surcharge pastorale, de cinq (05) moutons par hectare, aggravant la dégradation du couvert végétal et rendant les parcours incapables de supporter la pression actuelle. Ainsi, les cartes d'occupation des sols et du couvert végétal, générées à partir de données de télédétection et de systèmes d'information géographique (S.I.G), sont des outils précieux pour comprendre l'évolution des usages des terres et leurs impacts sur la végétation. Elles fournissent des informations détaillées sur les zones affectées par la dégradation, permettant aux gestionnaires de mettre en œuvre des mesures ciblées pour la réhabilitation et la conservation des terres affectées. Dans le cadre de la lutte contre la désertification et pour remédier à cette situation lamentable, il est préconisé de mettre en place des pratiques agricoles et pastorales durables. Cela inclut la délimitation et la rotation des zones de pâturage, l'adoption de techniques de conservation des sols et la création de barrières végétales. La sensibilisation des communautés locales et l'intégration de leurs connaissances traditionnelles sont également essentielles pour assurer la durabilité de cet écosystème fragilisé.

Mots-clés: Ecosystème steppique, Analyse spatiale, Etude diachronique, Désertification, Gestion durable, Tlemcen, Algérie.

Comparative Analysis of Phenolic Compounds, Flavonoids, and Antioxidant Activity in Aqueous Extracts of Different Plant Species

Asst. Prof. Dr. Jasmina Dedić

University of Tuzla, Bosnia & Herzegovina

Asst. Prof. Dr. Edina Huseinović

University of Tuzla, Bosnia & Herzegovina

Emina Mehmedović

PhD Student, University of Tuzla, Bosnia & Herzegovina

Emir Horozić

PhD Student, University of Tuzla, Bosnia & Herzegovina

Amina Džibrić

University of Tuzla, Bosnia & Herzegovina

Selma Šrndić

University of Tuzla, Bosnia & Herzegovina

Abstract

Water, as a universal solvent, plays a crucial role in the extraction of bioactive compounds from plant materials due to its polar nature and ability to form hydrogen bonds. In this study, aqueous extracts were analyzed for total phenolic content (TPC), total flavonoid content (TFC), and antioxidant activity, providing insight into the efficiency of water-based solvents for isolating polar phenolic compounds. Phenolic and flavonoid compounds are predominantly polar or semi-polar molecules, making them readily soluble in water. The highest TPC and TFC values observed in nettle (*Urtica dioica*) and cinnamon (*Cinnamomum verum*) extracts indicate efficient extraction of these compounds, which correlates directly with significant antioxidant activity measured by FRAP and DPPH assays. Conversely, lower values in black cumin (*Nigella sativa*) and bitter wormwood (*Artemisia absinthium*) may be attributed to a lower content of polar phenolics or limited water solubility. These results confirm that although water is often less effective than organic solvents for extracting less polar bioactives, it can efficiently extract substantial amounts of phenols and flavonoids from plants rich in polar compounds. Therefore, aqueous extracts represent a safe, eco-friendly, and effective approach to obtaining natural antioxidants, with promising applications in pharmaceutical and food industries.

Keywords: Aqueous extraction, Phenolic compounds, Flavonoids, Antioxidant activity, Natural antioxidants

Introduction

Plants represent an exceptionally rich source of bioactive compounds, particularly phenolic components and flavonoids, which are well known for their antioxidant, anti-inflammatory, antimicrobial, and anticancer properties (*Chang et al., 2002; Wojdyło et al., 2007*). Phenolic compounds constitute a large and chemically diverse group of secondary metabolites, including simple phenolic acids, flavonoids, tannins, and lignans (*Singleton et al., 1999*). Their biological activity—especially their ability to neutralize free radicals—makes them highly important in the prevention of oxidative stress, which is associated with numerous degenerative diseases such as cancer, diabetes, cardiovascular, and neurodegenerative disorders.

Flavonoids, as a subgroup of phenolic compounds, have a specific structure based on the phenyl-benzopyran skeleton (C6-C3-C6), with various substituents that affect their solubility, antioxidant capacity, and bioavailability (*Olajire & Azeez, 2011*). The solubility of these compounds in a given solvent primarily depends on their polarity, the presence of hydroxyl and carboxyl groups, as well as intermolecular interactions with solvent molecules.

The choice of solvent for phenolic compound extraction is crucial in phytochemical analysis. Organic solvents such as methanol, ethanol, and acetone are traditionally used due to their ability to extract a broad range of bioactive compounds, including less polar constituents. However, these solvents are often toxic, flammable, and environmentally hazardous (*Dibacto et al., 2021*). In this context, water is increasingly being explored as a "green" alternative solvent because of its safety, availability, and compatibility with food and pharmaceutical standards.

Water, as a highly polar solvent with the ability to form hydrogen bonds, is suitable for extracting highly polar compounds—primarily phenolic acids, flavonoid glycosides, and anthocyanins (*Wojdyło et al., 2007*). Nonetheless, its limited ability to extract lipophilic components presents a challenge in comprehensive phytochemical profiling.

The aim of this study is to conduct a comparative analysis of phenolic and flavonoid content, as well as antioxidant activity, in aqueous extracts of six plants with varying chemical profiles: *Urtica dioica*, *Cinnamomum verum*, *Hibiscus sabdariffa*, *Artemisia annua*, *Artemisia absinthium*, and *Nigella sativa*. These plants are well known for their traditional use in folk medicine, and investigating the efficiency of their aqueous extracts significantly contributes to the development of environmentally friendly and safe plant-based preparations.

Materials and Methods

Preparation of Plant Samples and Chemicals

The plant materials used in this study, including nettle leaves (*Urtica dioica*), cinnamon powder (*Cinnamomum verum*), hibiscus powder (*Hibiscus sabdariffa*), black cumin powder (*Nigella sativa*), as well as sweet and bitter wormwood leaves (*Artemisia annua* and *Artemisia absinthium*), were purchased from a local market in Tuzla, known for offering natural and organically grown products. Plant identification was performed based on morphological characteristics, and the raw materials were

ground into a fine powder using an electric laboratory mill to ensure sample uniformity for extraction.

Demineralized water was used for extract preparation to avoid the influence of ions and impurities that could interfere with analytical procedures. Aqueous extracts were prepared by extracting 0.5 g of dried, powdered plant material with 50 mL of solvent. The mixtures were subjected to vibrational mixing on a Vibromix device for 60 minutes at room temperature. After filtration, the resulting extracts were used for further analyses.

For the determination of total phenolic content, the Folin–Ciocalteu reagent, sodium carbonate (Na_2CO_3), and anhydrous sodium sulfate were used, all purchased from Semikem (Bosnia and Herzegovina). Reagents for the determination of antioxidant activity, including 2,4,6-tri(2-pyridyl)-s-triazine (TPTZ), iron(III) chloride (FeCl_3), hydrochloric acid (HCl), and sodium acetate for the preparation of FRAP reagent, as well as 2,2-diphenyl-1-picrylhydrazyl (DPPH), were obtained from Sigma-Aldrich (USA). All reagents used were of analytical grade (p.a.) and used without further purification.

Spectrophotometric measurements were carried out using a Perkin Elmer Lambda 25 UV-VIS spectrophotometer, at wavelengths ranging from 510 to 765 nm depending on the method, ensuring high accuracy and reliability in the quantification of bioactive compounds.

Determination of Total Phenolic Content (TPC)

Total phenolic content was determined using a modified Folin–Ciocalteu method, based on the protocol by Singleton et al. (1999). A volume of 200 μL of extract was mixed with 2540 μL of 10% Folin–Ciocalteu reagent, and after 5 minutes, 420 μL of 10% Na_2CO_3 was added. Following incubation at room temperature for 1 hour, the mixture was diluted with 910 μL of distilled water. Absorbance was measured at 765 nm. The results were expressed as mg of gallic acid equivalents per gram of plant material (mg GAE/g), based on a calibration curve ($y = 0.0042x + 0.0076$; $R^2 = 0.9998$) (Emir et al., 2024; Dibacto et al., 2021).

Determination of Total Flavonoid Content (TFC)

TFC was determined using a spectrophotometric method based on the formation of a colored complex with aluminum chloride, as described by Olajire and Azeez (2011), with minor modifications. A mixture of 1 mL of extract, 0.3 mL of 5% NaNO_2 , followed by 0.3 mL of 10% AlCl_3 , and after 6 minutes, 1 mL of 1 M NaOH, was diluted to a final volume of 10 mL. Absorbance was measured at 510 nm. Results were expressed as mg of quercetin equivalents per gram of dry weight (mg QE/g), based on a standard curve ($y = 3.024x - 0.0034$; $R^2 = 0.9984$) (Chang et al., 2002).

Ferric Reducing Antioxidant Power (FRAP) Assay

The antioxidant capacity of the samples was determined using the FRAP assay, according to the method described by Benzie and Strain (1999). The reaction was performed by incubating 100 μL of extract with 3 mL of FRAP reagent at 37°C for 30 minutes. Absorbance was measured at 593 nm, and the results were expressed as

$\mu\text{mol Fe}^{2+}/\text{g}$ of dry plant material, based on the standard calibration curve ($y = 0.001x + 0.0698$; $R^2 = 0.9997$).

DPPH Radical Scavenging Assay

The ability of the extracts to scavenge DPPH free radicals was analyzed according to the method of Horozić et al. (2019), modified for the purposes of this study. A mixture of 2 mL of extract (0.5 mg/mL) and 0.5 mL of 0.5 mM DPPH solution was incubated in the dark at room temperature for 30 minutes. Absorbance was measured at 517 nm, and the percentage of inhibition was calculated using the formula:

$$I (\%) = [(A_c - A_s) / A_c] \times 100$$

where **A_c** is the absorbance of the control sample and **A_s** is the absorbance of the extract-containing sample (Wojdyło et al., 2007; Horozić et al., 2024).

Results and Discussion

Table 1 presents the results of the analysis of polyphenol and flavonoid content, as well as the antioxidant capacity of the aqueous extracts of the studied plants.

Table 1. Results for the content of bioactive components and antioxidant activity of aqueous plant extracts

Sample	Extraction	TPC [mg GAE/g]	TFC [mg QE/g]	FRAP [$\mu\text{mol/g}$]	DPPH inhibition [%]
A-1	<i>Artemisia annua</i>	14,74	0,035	120,4	84,46
A-2	<i>Artemisia absinthium</i>	8,27	0,014	95,84	48,82
A-3	<i>Nigella sativa</i>	5,588	0,0281	384,2	21,81
A-4	<i>Hibiscus sabdariffa</i>	15,11	0,0517	194,01	72,60
A-5	<i>Cinnamomum verum</i>	55,83	0,0752	192,9	93,79
A-6	<i>Urtica dioica</i>	91,61	0,091	330,04	92,88

The results of this study clearly demonstrate variations in total phenolic content (TPC), total flavonoid content (TFC), and antioxidant activity among the plants, which are directly related to their phytochemical composition as well as the solubility of individual components in water.

The solubility of phenolic compounds in water depends on their structure—particularly the number and arrangement of hydroxyl and carboxyl groups (Singleton et al., 1999). For example, gallic acid, chlorogenic acid, and flavonoid glycosides such as rutin and quercetin-3-O-glucoside are highly water-soluble due to their polar functional groups. In contrast, flavonoid aglycones, essential oils, and sesquiterpenes (present in *Nigella sativa* and *Artemisia absinthium*) exhibit lower affinity for water because of their nonpolar structures (Emir et al., 2024).

For these reasons, *Urtica dioica* (nettle) and *Cinnamomum verum* (cinnamon) display the highest levels of phenolic and flavonoid compounds. Nettle is rich in polar phenolic acids (such as caffeic and ferulic acid) and flavonoids (e.g., quercetin, rutin), which are readily extracted with water. Similarly, cinnamon contains cinnamaldehyde, eugenol, and tannins, many of which are water-soluble, especially under mild extraction conditions (Dibacto et al., 2021).

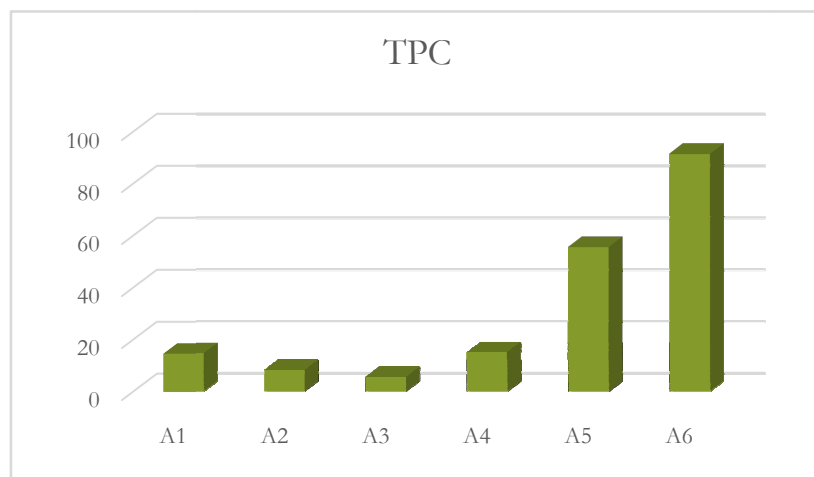


Figure 1. Comparison of polyphenol content in aqueous plant extracts

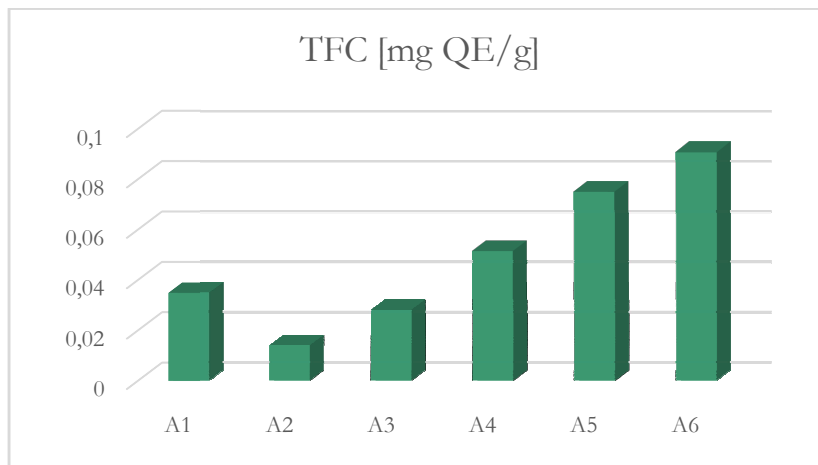


Figure 2. Comparison of flavonoid content in aqueous plant extracts

Interestingly, *Nigella sativa*, despite having the lowest TPC and TFC values, exhibited exceptionally high FRAP activity. This suggests that the antioxidant effects in black cumin are not primarily due to phenolic components, but rather to other reductive mechanisms—most likely the presence of thymoquinone, nigellone, and other quinonoid structures that do not contain phenolic groups but can reduce Fe^{3+} to Fe^{2+} (Horović et al., 2024). However, its free radical scavenging ability (as measured by the DPPH test) was weak, indicating a selective mechanism of antioxidant activity.

In the case of *Hibiscus sabdariffa*, the extracts showed moderately high TPC and TFC values, as well as strong FRAP and DPPH activities. Hibiscus is known for its richness in anthocyanins (such as delphinidin and cyanidin), which are highly polar compounds and excellent antioxidants (Dibacto *et al.*, 2021). Their solubility in water and stability under mild extraction conditions explain the observed results.

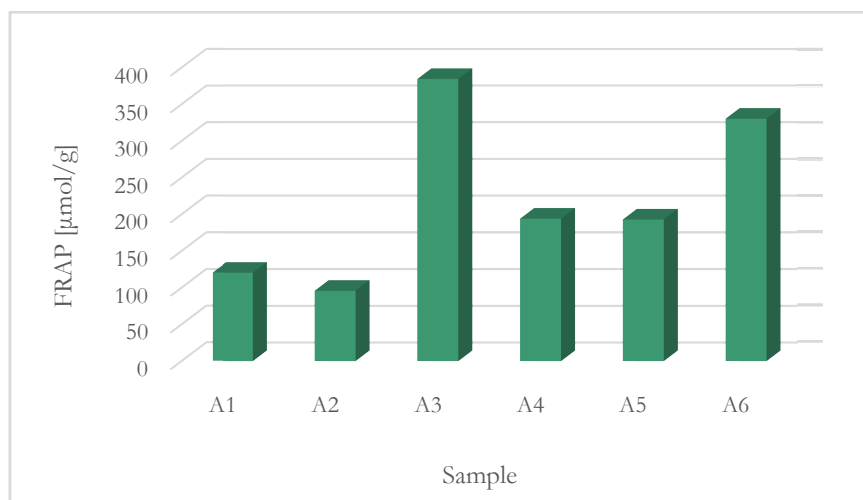


Figure 3. Comparison of the reducing potential of aqueous plant extracts

Artemisia annua and *Artemisia absinthium* exhibit distinct differences, with sweet wormwood showing significantly higher DPPH activity than bitter wormwood, despite having similar TPC and TFC values. This discrepancy may be attributed to differences in the qualitative composition of phenolic compounds, the presence of synergistic components, or varying degrees of oxidation within the extracts themselves (Emir *et al.*, 2024).

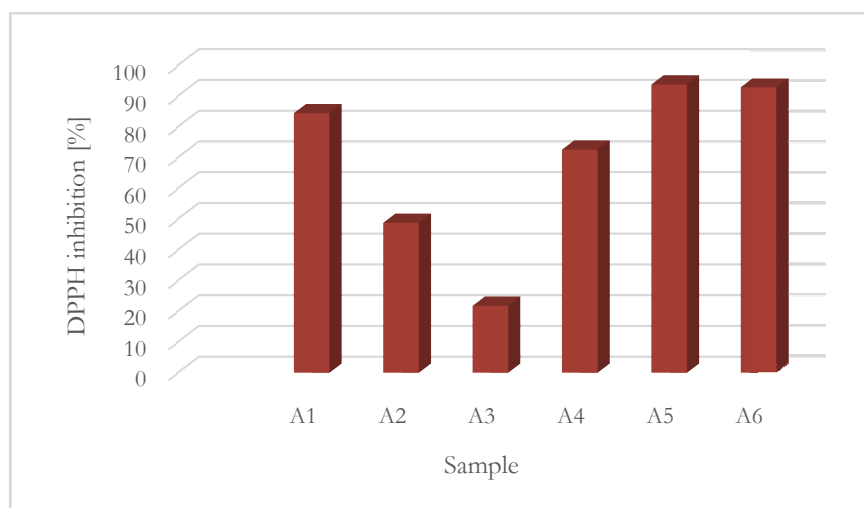


Figure 4. Comparison of DPPH radical inhibition by aqueous plant extracts

A positive correlation was observed between high phenolic/flavonoid content and antioxidant activity in most of the examined plants, particularly in *Urtica dioica*

(nettle) and *Cinnamomum verum* (cinnamon), confirming the importance of these compounds in free radical neutralization and reducing power (Wojdyło *et al.*, 2007). However, deviations in correlation in the cases of *Nigella sativa* and *Artemisia* species highlight the complexity of antioxidant mechanisms in plant material and the need for complementary analyses (e.g., HPLC/MS identification of individual compounds) (Emir *et al.*, 2024).

Conclusion

The results of this study confirm that water, as an environmentally friendly and safe solvent, can be effective in extracting polar phenolic and flavonoid compounds from certain plant materials. Although traditionally considered less selective compared to organic solvents, water demonstrated substantial capability in extracting antioxidant-active compounds from plants rich in hydrophilic constituents.

Urtica dioica (nettle) and *Cinnamomum verum* (cinnamon) showed the highest levels of total phenolics, flavonoids, and antioxidant activity, supporting their phytotherapeutic value and potential use as natural sources of antioxidants in functional products. In contrast, plants such as *Nigella sativa* (black cumin) and *Artemisia absinthium* (bitter wormwood) exhibited low TPC and TFC values but demonstrated a diverse antioxidant profile, suggesting the presence of other non-phenolic bioactive compounds.

The significant discrepancy between FRAP and DPPH results in certain plants underscores the complexity of antioxidant mechanisms and the necessity of employing multiple assays for comprehensive extract characterization. Furthermore, the data from this study lay the groundwork for future research—including advanced identification techniques (HPLC, GC-MS, LC-MS/MS) and investigations into biological activity using *in vitro* and *in vivo* models.

Ultimately, aqueous extracts emerge as a sustainable alternative for obtaining natural antioxidants, with potential applications in pharmaceutical formulations, nutraceuticals, and functional food products. Their ease of preparation, consumer safety, and low environmental impact make them an attractive focus for further development in green chemistry and plant biotechnology.

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The Role of Peer-to-peer Electricity Trading in Increasing Renewable Energy Generation

Assoc. Prof. Dr. Hoda Zobeiri
University of Mazandaran, Iran

Mohammad Hasani
PhD Student, University of Mazandaran, Iran

Abstract

Energy systems worldwide face a critical challenge to maintain supply-demand equilibrium because of increasing consumption patterns alongside limited production abilities. This research examines how peer-to-peer (P2P) electricity trading functions as an innovative solution to increase renewable energy production and usage in specific countries. The direct electricity exchange system between prosumers and consumers through P2P trading enables renewable energy adoption while promoting energy independence. The implementation of this system stabilizes the electrical grid through peak demand reduction and distributed energy resource optimization together with blockchain-based smart contract technology. The research uses dynamic panel econometric methods to analyze solar electricity growth through P2P policy effects and renewable energy expansion and demonstrates decentralized energy network effectiveness. The successful adoption of P2P trading requires supportive policies and consumer education because of regulatory obstacles together with smart infrastructure requirements and data privacy and security concerns. The research demonstrates P2P trading potential to create sustainable energy systems yet stresses the need for solid infrastructure and legal frameworks for successful deployment.

Keywords: peer-to-peer, electricity energy, renewable energy generation

Magnetic Effects in Semiconductors

Dr. Qardashbeyova Naile Adem

Naxçıvan Dövlət Universiteti, Azerbaijan

Quliyeva Adile Adem

Naxçıvan Dövlət Universiteti, Azerbaijan

Abstract

It is known that a moving electric charge can be viewed as an electric current and this charge creates a magnetic field around itself. The interaction of the magnetic field created as a result of the movement of a charged particle with an external magnetic field causes a change in the trajectory of the particle's movement. The effect of a magnetic field on the movement of a charged particle is used in electronography, electron microscopy, nuclear spectroscopy, the study and analysis of cosmic rays, accelerators of charged particles, electron paramagnetic and nuclear resonance, the Stark effect, etc.

Electromagnetic induction arises as a result of the Lorentz force. In semiconductors, free electrons move chaotically and the magnetic fields of these charges compensate each other. When a conductor moves with a speed ϑ , some of the electrons increase their speed, while the speed of another particle decreases. When such a moving conductor is affected by an external magnetic field, the electrons are subjected to varying Lorentz forces. This leads to the displacement of the electrons, which causes the generation of an induced emf.

Keywords: semiconductor, electronography, electron, microscope, nucleus, spectroscopy, electromagnetic

Plant Derived Exosome-like Nanoparticles (PDELNs): Isolation, Characterisation, and Effect on Various Diseases

Bitki Kaynaklı Ekzosom Benzeri Nanopartiküller (BKEBN): İzolasyon, Karakterizasyon ve Çeşitli Hastalıklar Üzerindeki Etkisi

Dr. Burhan Ertekin

Tokat Gaziosmanpaşa University, Türkiye

Abstract

Plant-derived exosome-like nanoparticles (PDELNs) are a type of naturally produced lipid bilayer extracellular vesicles that measure 50-200 nm in diameter and are used for transporting materials and information between cells. PDELNs have numerous advantages, including low toxicity and immunogenicity, effective cellular uptake, high biocompatibility, easy passage through the blood-brain barrier, stability, and the capability for large-scale manufacture. By releasing their contents, which include proteins, lipids, miRNA, and mRNA, PDELNs function to regulate intercellular communication. PDELNs have attracted considerable interest in scientific study owing to their potential medical applications, with studies investigating their comprehensive applicability in various cancers, brain diseases, and wound healing. PDELNs have been demonstrated to have a wide range of therapeutic advantages, including anticancer, anti-inflammatory, antioxidant, and neuroprotective activities. In this context, this report is important in terms of providing researchers with extensive information on the isolation, characterization, and application areas of PDELNs, providing a new perspective in their studies.

Keywords: Extracellular vesicles; PDELNs; cancer; brain diseases

Özet

Bitki kaynaklı ekzosom benzeri nanopartiküller (BKEBN),, çapı 50-200 nm arasında değişen ve hücreler arasında materyal ve bilgi taşımak için kullanılan, doğal olarak üretilen bir tür lipid çift katmanlı hücre dışı veziküllerdir. BKEBN, düşük toksisite ve immünogenite, etkili hücresel alım, yüksek biyouyumluluk, kan-beyin bariyerinden kolay geçiş, stabilite ve büyük ölçekli üretim kapasitesi gibi çok sayıda avantaja sahiptir. BKEBN; proteinler, lipidler, miRNA ve mRNA gibi kargo elemanlarını serbest bırakarak hücreler arası iletişimi düzenleme işlevi görür. BKEBN, çeşitli kanser tipleri, beyin hastalıkları ve yara iyileşmesinde kapsamlı uygulanabilirliği ve potansiyel tıbbi uygulamaları nedeniyle bilimsel çalışmalarda ön plana çıkmaktadır. Yapılan çalışmalarda, BKEBN'in; antikanser, anti-inflamatuar, antioksidan ve nöroprotektif etkileri dahil olmak çok sayıda etkileri gösterilmiştir. Bu bağlamda bu bildiri, araştırmacılara BKEBN'in; izolasyonu, karakterizasyonu ve uygulama alanları hakkında kapsamlı bilgi sağlaması ve çalışmalarına yeni bir bakış açısı kazandırması açısından önemlidir.

Anahtar Kelimeler: Hücre dışı vezikül; BKEBN; kanser; beyin hastalıkları

Studying the Effect of Educational Intervention on Cervical Cancer Screening among School Teachers in Western Iran: Application of the Extensive Parallel Process Model

Prof. Dr. Mohtasham Ghafari

Shahid Behshti University, Iran

Prof. Dr. Sakineh Rakhshanderu

Shahid Behshti University, Iran

Dr. Elahe Ezati

Hamedan University, Iran

Dr. Sima Kamkar

Hamedan University, Iran

Abstract

Introduction: Cervical cancer is one of the most common cancers among women in the world and is one of the few cancers that can be easily detected in the premalignant stage. A major factor in mortality from cervical cancer in developing countries is the lack of appropriate screening methods. Studies have shown that theory-based interventions in this field can be very effective, therefore, the present study aimed to determine the effect of educational interventions based on the extensive parallel process model on cervical cancer screening among school teachers in western Iran .

Methods: This quasi-experimental study was conducted on 120 school teachers in Kermanshah province who were randomly selected in two cities: Islamabad-e Gharb and Sar-e Pol-e Zahab. The data collection tool was a researcher-made questionnaire based on the constructs of the extensive parallel process model, the validity and reliability of which were confirmed.. Data analysis was performed using statistical tests and SPSS 21software.

Findings: The average age of the participants in the study was 6.67 ± 38.63 and their average age of marriage was 3.81 ± 21.66 . According to the results of this study, before the educational intervention, all individuals in the test group (60 people) and control group (60 people) were in the threat assessment stage, but 2 months after the educational intervention, 26 individuals (%43.3) of the test group entered the face assessment stage, while this figure was 1 person (%1.7) in the control group, which was statistically significant. Before the educational intervention, there was no significant difference between the constructs of the extensive parallel process model, but after the educational intervention, the mean scores of the constructs of the extensive parallel process model and the mean behavioral intention rating increased

in the test group before the intervention compared to after the intervention, which was statistically significant (P-value < 0.001).

Conclusion: In addition to designing and implementing the educational program, based on the extensive parallel process model, Pap smear testing requires the investigation of other obstacles such as lack of time, fear, embarrassment, etc., and focusing on the determining factors of performing cervical cancer screening can be an effective step in reducing mortality from this disease

Keywords: cervical cancer, screening, intervention

An Analysis of the Relationship Between Iodine and Goiter and Nodules in the Thyroid Gland

Troid Bezinde Guatr ve Nodüllerin İyotla İlişkisi Üzerine Bir Analiz

M.D. Intern, Zehranur Kuzubas

Duzce University, Medicine Faculty, Turkey

Abstract

Iodine, which plays a role in the synthesis of thyroid hormones, is taken into follicular cells along with Na⁺. With the Wolf-Chaikoff effect, the pump is inhibited at high iodine concentration. Iodide is converted to iodine; iodine binds to tyrosine in thyroglobulin via the enzyme iodination. Binding of one iodine to tyrosine forms MIT; binding of two iodines forms DIT. T₄ is formed from two DITs, and T₃ from one MIT and one DIT.

Iodine is an essential element for the synthesis of thyroid hormones. When there is insufficient iodine intake, the thyroid gland enlarges in an attempt to increase hormone production, leading to the development of goiter. Therefore, iodine deficiency is one of the most common causes of goiter, especially in endemic regions. On the other hand, excessive iodine intake can also disrupt thyroid function in some individuals, potentially causing goiter and the formation of nodules.

This study discusses the iodine element used in the production of these hormones, which thus affects the metabolic activities of all tissues; how iodine consumption should be in our daily lives for health; in which foods it is found, which patient groups should pay attention to salt and iodine intake in their diets, and what diseases may occur in cases of deficiency or excess.

Keywords: Iodine, thyroid, thyroid hormones

Özet

Tiroid hormonlarının yapımında rolü olan iyot, foliküler hücrelere Na⁺ ile beraber alınır. Wolf-Chaikoff etkisiyle yüksek iyot konsantrasyonunda pompa inhibe olur. İyodür, iyota dönüştürülür; iyot, iyodinaz enzimiyle tiroglobulindeki tirozin'e bağlanır. Tirozine bir iyot bağlanmasıyla MIT; iki iyot bağlanmasıyla DIT; DIT x2 ile T₄, MIT + DIT ile T₃ oluşur.

İyot, tiroid hormonlarının sentezi için gerekli temel bir elementtir. Yeterli iyot alınmadığında tiroid bezi, hormon üretimini artırmak amacıyla büyüyerek guatr oluşumuna neden olabilir. Bu nedenle, iyot eksikliği, özellikle endemik bölgelerde guatrın en yaygın nedenlerinden biridir. Öte yandan, aşırı iyot alımı da bazı bireylerde tiroid fonksiyonlarını bozarak guatr ve nodül gelişimine yol açabilir.

Bu çalışmada bu hormonların üretiminde kullanılan ve bu sayede tüm dokuların metabolik faaliyetlerini etkileyen iyot elementi, iyot tüketiminin sağlığımız için günlük yaşamımızda nasıl olması gerektiği; hangi besinlerde bulunduğu, hangi hasta gruplarının tuz ve iyot diyetinde dikkat etmesi gerektiği; eksikliğinde veya fazlalığında ne gibi hastalıklarla karşılaşılacağı ele alınmıştır.

Anahtar Kelimeler: iyot, troid, troid hormonu

Impact of Chronic Disease Level on Dual-Task Performance in Elderly Individuals
Yaşlı Bireylerde Kronik Hastalık Düzeyinin İkili Görev Performansı Üzerine Etkisi

Lect. Gizem Mermerkaya

*Vocational School of Health Services, Department of Physiotherapy, Bartın University,
Türkiye, Orcid ID: 0000-0003-1893-4867*

Lect. Betül Erbay

*Vocational School of Health Services, Department of Physiotherapy, Bartın University,
Türkiye,
Orcid ID: 0000-0002-7130-0129*

Serkan Özdemir

*Vocational School of Health Services (Associate Degree Graduate), Bartın University,
Türkiye, Orcid ID: 0009-0003-8161-5137*

Abstract

Background:

Multimorbidity is highly prevalent in older adults and is associated with declines in both cognitive and physical function. Dual-task activities, which require attentional and motor integration, become more challenging with age and are linked to increased fall risk.

Objective:

This study aimed to examine the association between chronic disease burden and dual-task performance in older individuals.

Methods:

A total of 42 older adults residing in a nursing home in Bartın, Turkey, were classified into low, moderate, and high comorbidity groups using the Modified Charlson Comorbidity Index. Assessments included the Mini-Mental State Examination (MMSE), handgrip strength, Short Physical Performance Battery (SPPB), Timed Up and Go Test (TUG) under single and cognitive dual-task conditions, and the Physical Activity Scale for the Elderly (PASE).

Results:

The high comorbidity group demonstrated significantly longer TUG and dual-task durations compared to the other groups ($p < 0.05$). Comorbidity score was negatively correlated with handgrip strength and SPPB, and positively correlated with TUG and dual-task times ($p < 0.05$).

Conclusion:

Increased chronic disease burden negatively affects dual-task gait performance in older adults. These findings suggest that multimorbidity may compromise cognitive-motor function and increase the risk of falls and loss of independence

Keywords: Multimorbidity, Dual-task performance, Gait, Older adults

Özet

Giriş:

İleri yaşta çoklu kronik hastalıkların (multimorbidite) görülme sıklığı oldukça yüksektir ve bu durum bilişsel ve fiziksel işlevlerde azalmalarla ilişkilidir. Dikkat ve motor entegrasyon gerektiren ikili görev aktiviteleri yaşla birlikte zorlaşmakta ve artan düşme riski ile bağlantılıdır.

Amaç:

Bu çalışmanın amacı, yaşlı bireylerde kronik hastalık yükü ile ikili görev performansı arasındaki ilişkinin incelenmesidir.

Yöntem:

Bartın ilinde bir huzurevinde yaşayan 42 yaşlı birey, Modifiye Charlson Komorbidite İndeksi kullanılarak düşük, orta ve yüksek komorbidite gruplarına ayrılmıştır. Katılımcılara Mini Mental Durum Testi (MMSE), el kavrama kuvveti, Kısa Fiziksel Performans Bataryası (SPPB), Zamanlı Kalk-Yürü Testi (ZKYT) (tekli ve bilişsel ikili görev koşullarında) ve Yaşlılar için Fiziksel Aktivite Ölçeği (PASE) uygulanmıştır.

Bulgular:

Yüksek komorbidite grubunda ZKYT ve ikili görev süreleri diğer gruplara kıyasla anlamlı düzeyde daha uzun bulunmuştur ($p<0,05$). Komorbidite puanları ile el kavrama kuvveti ve SPPB arasında negatif; ZKYT ve ikili görev süreleri ile pozitif korelasyon saptanmıştır ($p<0,05$).

Sonuç:

Artan kronik hastalık yükü, yaşlı bireylerde ikili görev yürüyüş performansını olumsuz yönde etkilemektedir. Bu bulgular, multimorbiditenin bilişsel-motor işlevselliği bozarak düşme ve bağımsızlık kaybı riskini artırabileceğini göstermektedir.

Anahtar Kelimeler: Çoklu hastalık, İkili görev performansı, Yürüme, Yaşlı bireyler

1. INTRODUCTION

The presence of multiple chronic conditions (comorbidity) is common in older adults and contributes to declines in both cognitive and physical functions (Kadambi et al., 2020). For instance, individuals with higher levels of multimorbidity demonstrate more rapid deterioration in global cognition, memory, and executive functions (Kadambi et al., 2020). Dual-task performance—performing a motor and a cognitive task simultaneously—is frequently encountered in daily life activities and challenges attentional capacity (Zhou et al., 2023). In older adults, gait or balance performance often deteriorates under dual-task conditions, which is a critical indicator for fall risk

(Silveira et al., 2023). However, the relationship between the level of chronic disease and dual-task performance in the elderly has not been sufficiently investigated in the literature. Existing evidence suggests that chronic disease management in older adults may be crucial for preserving functional capacity. This study aims to investigate the effect of chronic disease burden on dual-task performance in older individuals and to compare the findings with current literature.

2. MATERIAL AND METHODS

Study Design and Participants

This study was conducted with older adults residing at Bartın 75th Year Nursing Home. Ethical approval and necessary permissions were obtained from the Ethics Committee of Social and Human Sciences at Bartın University and the Ministry of Family and Social Services. The research was carried out between November 2022 and April 2024. A total of 42 elderly individuals aged 65–85 who were living in the nursing home and agreed to participate were included in the study. Written informed consent was obtained from each participant. Based on the Modified Charlson Comorbidity Index, participants were categorized into three groups: low comorbidity (score ≤ 3) ($n=9$, age: 70.66 ± 5.36), moderate comorbidity (score 4–5) ($n=16$, age: 71.37 ± 5.97), and high comorbidity (score 6–7) ($n=17$, age: 71.87 ± 7.49) (Charlson et al., 1987).

Measurements

General demographic and clinical characteristics of the participants were recorded. Standardized tests were used to assess physical capacity and cognitive function. Cognitive status was evaluated using the Mini-Mental State Examination (MMSE) (Güngen et al., 2002), handgrip strength (HGS) was measured with a Jamar dynamometer (Kurillo et al., 2004), and lower extremity function was assessed with the Short Physical Performance Battery (SPPB) (Fisher et al., 2009). Dual-task performance was evaluated using the Timed Up and Go (TUG) test for regular walking time (Lin et al., 2004) and the time required to perform a simple cognitive task (counting backward by threes) during walking (TUGC) (Shumway-Cook et al., 2000). Additionally, participants' physical activity levels were assessed using the Physical Activity Scale for the Elderly (PASE) (Ayvat et al., 2017; Washburn et al., 1999). Data were analyzed using Kruskal-Wallis and ANOVA tests for group comparisons, and Spearman analysis for correlations. Statistical significance was set at $p < 0.05$.

3. RESULTS AND DISCUSSION

Analysis of demographic data showed no statistically significant differences between groups in terms of age, height, weight, years of education, or number of falls in the past year ($p > 0.05$). However, significant differences were observed between groups in Body Mass Index (BMI) and number of medications used ($p < 0.05$) (Table 1). The high comorbidity group had significantly higher BMI values and average medication use compared to the low comorbidity group. This finding reflects that individuals with a higher disease burden typically require more extensive treatment.

Table 1. Demographic Characteristics of Individuals According to Comorbidity Levels

	Low comorbidity level (n=9) X±SS Median(min-max)	Moderate comorbidity level (n=16) X± SS Median(min-max)	High comorbidity level (n=17) X± SS Median(min-max)	p
Age (years)	70,66±5,36 69,00 (65-80)	71,37±5,98 70,00 (65-85)	71,87±7,49 73,00 (65-85)	0,07 ^a
Height (cm)	151,86±56,57 170,00 (180-181)	169,06±7,82 170,00 (150-182)	169,58±7,96 169,00 (153-187)	0,98 ^a
Weight (kg)	73,33±10,00 74,00 (60-90)	74,22±12,23 79,00 (63-105)	85,17±13,85 87,00 (60-110)	0,08 ^b
BMI (kg/m ²)	24,93±3,48 24,70 (19,90-31,10)	28,17 ±3,58 27,40 (23,10-36,70)	29,67 ± 4,75 30,50 (19,90-38,10)	0,02^{*b}
Years of education	7,33 ± 4,03 5,00 (5-16)	10,12 ±4,84 12,00 (5-16)	7,05 ±4,08 5,00 (5-16)	0,15 ^a
Number of falls in past year	0,22 ± 0,44 0 (0-1)	0,31 ± 0,47 0 (0-1)	0,52 ±0,51 0 (0-1)	0,24 ^a
Number of medications used	0,88 ± 0,33 1 (0-1)	2,06 ± 0,99 2 (1-4)	3,05 ± 1,24 3 (1-5)	p<0.001^{*a}

^a: Kruskal Wallis-H , ^b: Anova, Post-Hoc: Scheffe , *: p<0,05

No significant differences were found between the groups in terms of MMSE score, handgrip strength, or SPPB score ($p > 0.05$). However, a significant difference was observed between the groups regarding TUG test durations, both under normal conditions (walking only) and during dual-task conditions (TUGC) ($p < 0.05$). The mean TUG duration for the high comorbidity group (11.98 ± 4.63 s) was significantly longer than that of the low (8.35 ± 2.90 s) and moderate (8.25 ± 1.71 s) comorbidity groups. Similarly, the TUGC duration in the high comorbidity group (19.13 ± 7.62 s) was also longer than in the other groups (Table 2). These findings suggest that older adults with a higher chronic disease burden experience greater difficulty when performing a cognitive task in addition to normal walking.

Table 2. Comparison of MMSE, HGS, SPPB, TUG, TUGC, and PASE Between Groups

	Low comorbidity level (n=9) X±SS Median(min- max)	Modorate comorbidity level (n=16) X± SS Median(min-max)	High comorbidity level (n=17) X± SS Median(min- max)	p
MMSE	26,33 ± 2,06 27,00 (24-30)	25,68 ± 1,85 25,00 (24-30)	25,29 ± 1,86 24,00 (24-30)	0,41 ^a
HGS	34,41 ± 5,71 33,02 (25,60- 44,36)	27,79 ± 7,14 28,18 (15,36- 44,00)	21,81 ± 10,14 29,90 (10,03- 41,43)	0,06 ^b
SPPB	8,55 ±1,94 9,00 (6-11)	8,06 ± 2,17 7,50 (6-12)	6,94 ± 2,10 7,00 (4-12)	0,16 ^a
TUG	8,35 ± 2,90 6,90 (6,07-15,39)	8,25 ± 1,71 7,62 (6-11,53)	11,98 ± 4,63 10,24 (5,56- 19,94)	0,012^{*a}
TUGC	11,22 ± 3,22 10,95 (6,61-16,86)	15,60 ± 4,84 15,66 (6,51-22,65)	19,13 ± 7,62 17,19 (8-35,81)	0,002^{*b}
PASE	66,12 ±82,06 39,30 (3,30- 260,47)	73,93 ±42,34 64,70 (2,20- 136,55)	49,29 ± 51,27 29,10 (0-146,80)	0,20 ^a

^a: Kruskal Wallis-H , ^b: Anova, Post-Hoc: Scheffe, *: p<0,05

Correlation analyses revealed a moderate negative relationship between total comorbidity score and handgrip strength ($r = -0.34$, $p < 0.05$), as well as with SPPB score ($r = -0.35$, $p < 0.05$). In contrast, a positive correlation was found between comorbidity and TUG ($r = 0.44$, $p < 0.01$) and TUGC ($r = 0.52$, $p < 0.001$) durations (Table 3). These results indicate that as chronic disease burden increases, physical performance and walking speed decline, while the time required to complete dual tasks increases. Consistently, the literature also reports that older adults with multiple chronic conditions experience declines in cognitive function and reduced performance in dual-task situation (Kadambi et al., 2020). For example, in the study by Zhang et al. (2024), the risk of cognitive impairment was found to be significantly higher in older adults with multiple comorbidities compared to those with a single disease (Zhang et al., 2024). In addition, studies conducted in China and other countries have reported that individuals with high levels of multimorbidity experience declines in attention and executive functions, as well as difficulties in performing daily activities (Coppin et al., 2006). In our study, the prolonged walking duration and

increased difficulty in dual-task performance observed in the high comorbidity group are consistent with the existing literature.

Table 3. Correlation Between Comorbidity Score and Other Variables

		MMSE	HGS	SPPB	TUG	TUGC	PASE
Comorbidity Score	r	-0,281	-0,342	-0,345	0,438	0,521	-0,130
	p	0,072	0,027*	0,025*	0,004*	p<0,001*	0,413
	n	42	42	42	42	42	42

Our findings emphasize the importance of chronic disease management in older adults. While Silveira et al. (2023) demonstrated that dual-task performance is associated with fall risk in elderly individuals with cardiovascular disease (Silveira et al., 2023), similarly, the study by Tuena et al. (2023) reported that older adults with chronic conditions experience significant difficulties in dual-task activities. (Tuena et al., 2023). The results we obtained support the theoretical framework suggesting that comorbidity impairs executive functions, thereby reducing performance in dual-task situations (Tuena et al., 2023). However, the absence of differences in general cognitive test scores such as the MMSE indicates that the level of general dementia between the groups is relatively small. Therefore, dual-task tests may be more sensitive in detecting mild cognitive or physical impairments.

CONCLUSION

The findings of this study revealed that the burden of multiple chronic conditions significantly affects dual-task performance in older adults. Individuals in the high comorbidity group exhibited notably longer durations for both normal walking and walking combined with a cognitive task compared to other groups. This suggests that as chronic disease burden increases, dual-task cost also rises due to declines in executive functions and reduced attentional capacity. Consistent with the literature, older adults with higher levels of multimorbidity are more vulnerable to cognitive decline and fall risk. These findings indicate that managing chronic diseases in the elderly is important not only for medical purposes but also for preserving functional status and preventing falls. Dual-task tests may be useful in identifying early functional decline and guiding preventive interventions in this population.

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Association of Myofascial Trigger Points in Posterior Scapular Muscles Among Athletes from Various Sports Disciplines: A Cross-Sectional Study

Mohit Gulati

Phd Scholar Chitkara University, India

Assoc. Prof. Dr. Navita Gupta,

Chitkara University, India

Assoc. Prof. Dr. Gowrishankar Potturi

Uttar Pradesh University of Medical Sciences, India

Abstract

Background:

Myofascial trigger points (MTrPs) are a common musculoskeletal issue, particularly in athletes due to repetitive strain and muscle overuse. Scapular muscles are especially vulnerable due to their role in shoulder functioning and stability.

Objective:

To assess the prevalence of active MTrPs in posterior scapular muscles among athletes from various sports disciplines and to examine their association with side of injury and limb dominance.

Methods:

216 competitive athletes from eight sports (Athletics, Handball, Hockey, Kabaddi, Taekwondo, Volleyball, Weightlifting, Wrestling) were assessed bilaterally for active MTrPs in nine posterior scapular muscles using pincer palpation technique. Chi-square test was used for association analysis.

Results:

Upper Trapezius showed the highest prevalence (86.1%), followed by Supraspinatus (67.1%) and Infraspinatus (64.9%). Dominant side injuries accounted for 47.2% of cases. MTrPs were significantly associated with dominant-side injuries in several muscles, except Teres Major and Minor. No significant association was found between sports discipline and injury side ($p = 0.122$), or between muscle involvement and sports discipline ($p = 0.197$).

Conclusion:

MTrPs are highly prevalent among athletes, especially in the Upper Trapezius, Supraspinatus, and Infraspinatus. These findings suggest that MTrPs are not sport-specific, reinforcing the need for early screening and targeted interventions even in non-overhead sports.

Keywords: Myofascial Trigger Points, Sports disciplines, Athletes, Prevalence, Scapular Muscles

Multiscale-Aware Vision Transformer for Accurate Echocardiographic Diagnosis of Aortic Stenosis

Younas Aziz

PhD Student, Central South University, China

Aasim Danish

PhD Student, Central South University, China

Inayat ur Rehman

PhD Student, Central South University, China

Abstract

Aortic stenosis (AS) is a life-threatening heart valve disease where timely detection and severity classification are essential for effective treatment planning. Existing automated approaches, including CNNs and Vision Transformers (ViTs), often struggle with multiscale feature entanglement and lack spatial inductive biases, limiting their ability to distinguish fine-grained anatomical details from echocardiographic images. To address these challenges, we propose MultiScaleViT, a multiscale-aware Vision Transformer designed for AS detection and severity classification. First, a MultiScale Attention (MSA) module is introduced, which separates feature extraction into two branches: Global-Scale Attention (GSA) for capturing global semantic context and Local-Scale Attention (LSA) for preserving fine-grained local details. Second, to improve spatial discrimination, a Spatial-Enhanced Convolution Module (SECM) is integrated, which uses depth-wise convolutions and channel gating to enhance clinically relevant regions while suppressing noise and redundant background. The model is evaluated on the TMED echocardiography dataset, MultiScaleViT achieves state-of-the-art performance with 90.7% accuracy for image-wise AS detection, 79.01% for severity classification, and 88.10% and 78.43% for patient-wise AS detection and severity classification, respectively, significantly outperforming baseline models. These results demonstrate the effectiveness of MultiScaleViT in capturing the multiscale and spatial complexities of echocardiography data for a robust diagnosis of AS.

Keywords: Aortic stenosis, echocardiography, Vision Transformer, automated diagnosis.

A Vision Transformer with Angular Attention for Robust Automated Echocardiographic Analysis

Younas Aziz

PhD Student, Central South University, China

Aasim Danish

PhD Student, Central South University, China

Inayat ur Rehman

PhD Student, Central South University, China

Abstract

Cardiovascular diseases, a leading cause of mortality, demand accurate automated diagnostic tools to improve early detection and patient outcomes. Echocardiography is a standard imaging technique for assessing heart conditions. However, existing Vision Transformer models struggle with echocardiographic images due to spatial redundancy and speckle noise, which impair feature extraction, and acquisition angle variability, which reduces attention robustness. To address these challenges, we propose a novel Vision Transformer-based model incorporating two specialized modules. The Efficient Refinement Module (EFRM) mitigates spatial redundancy and noise to enhance clinically relevant feature extraction. The Linear Angular Attention (LAA) module improves robustness against acquisition angle variability through angular-aware rectification, capturing anatomically meaningful patterns. Proposed model is evaluated on the TMED dataset, achieving a detection accuracy of 90.35% and a severity classification accuracy of 80.69%, demonstrating state-of-the-art performance for automated echocardiographic analysis.

Keywords: Cardiovascular disease, echocardiography, Vision Transformer, automated diagnosis, feature extraction.

Mental Health of Firefighters: Occupational Medical Case Series Study

Dr. Nassira Chenouf

Faculty of Medicine, Batna, Algeria

Prof. Dr. Wissal Benhassine

Faculty of Medicine, Batna, Algeria

Abstract

Introduction: Firefighters, essential actors in civil safety, practice a profession exposed to emotionally intense and potentially traumatic situations. In this highly demanding professional context, our medical visits have revealed a significant psychiatric symptomatology. This observation has prompted us to conduct an investigation with the **objective** of precisely characterizing the nature of mental health disorders among these firefighters, identifying potentially contributive professional factors, and proposing recommendations. **Method:** Retrospective descriptive study of twelve cases presenting psychiatric disorders among firefighters, identified during various occupational medical visits, combining medical records analysis and individual interviews. Management was carried out in collaboration with a psychiatrist. **Results:** Almost the majority of participants report experiencing traumatic events during rescue and intervention operations involving child victims, with particular mention of the victims' screams. Post-traumatic stress symptomatology, present in almost all participants (11/12), is primarily characterized by avoidance syndrome (9/12), repetition syndrome (8/12), sleep disorders (7/12), and significant alteration of cognitions and mood (7/12), while one clinical case was identified as presenting a chronic psychosis type schizophrenia, with delusions, behavioral disorders, and hallucinations, initially reported by colleagues. **Conclusion:** Our study highlights the complexity and severity of mental health issues among firefighters, revealing a significant psychological vulnerability directly linked to their professional exposure to traumatic situations. The adoption of a preventive approach appears to be a key element in reducing the incidence of this disorder.

Keywords: Post-traumatic stress disorder, firefighters, mental health