



*Il international scientific conference
Rome. Italy
11-12.07.2023*

MODERN SCIENCE: FUNDAMENTAL AND APPLIED ASPECTS

*Proceedings of the international Scientific
and Practical Conference*

11-12 July 2023

ROME. ITALY

2023

UDC 001.1

BBC 1

*II International Scientific and Practical Conference «Modern science:
fundamental and applied aspects», July 11-12, 2023, Rome. Italy.
28 p.*

ISBN 978-91-65423-24-4

DOI <https://doi.org/10.5281/zenodo.8155060>

Publisher: «SC. Scientific conferences»

Main organization: 

Editor: Hans Muller

Layout: Ellen Schwimmer

The conference materials are in the public domain under the CC BY-NC 4.0 International license.

The publisher is not responsible for the materials published in the collection. All materials are provided in the author's edition and express the personal position of the participant of the conference.

*The sample of the citation for publication is Gugin Aleksandr,
Lisniewska Yuliia ANTI-ADVERTISING IN THE HOTEL BUSINESS // I
International Scientific and Practical Conference «Modern science:
fundamental and applied aspects», May 23-24, 2023, Rome. Italy .
Pp.9-11, URL: <https://sconferences.com>*

Contact information

Website: <https://sconferences.com>

E-mail: info@sconferences.com

Content

Biological sciences

Huseynova Gulnar Isa

CHARACTERISTICS OF INFLUENCE ON PROTEOLITIC ACTIVITY OF ECO-TROPHIC RELATIONSHIPS OF XYLOTROPH MACROMYCETES IN FOREST ECOSYSTEM

3

Chemical sciences

Karimova Aynura Hidayat

STRUCTURE OF THE CHITOSAN AND CROSS-LINKED CHITOSAN FUNCTIONALIZED IRON OXIDE NANOPARTICLES

5

Mathematical sciences

Shapenova Bakhytgul Askharovna

FORMATION OF STUDENTS' MATHEMATICAL LITERACY DURING THE STUDY OF THE TOPIC "VECTORS"

7

Philological sciences

Ahmad Kasem Haj Ali

ARTIFICIAL INTELLIGENCE AND DISCOURSE MAKERS IN ENGLISH

11

Ahmad Kasem Haj Ali

THE ROLE OF DISCOURSE MARKERS IN ENGLISH MEDIA ACROSS GENRES

15

Arzu Huseynli

THE FIRST FEMALE AUTHORS OF ENGLAND

21

Korableva Ekaterina Alekseevna

EXPRESSIVE SYNTAX IN MODERN ENGLISH FICTION

24

Technical sciences

Ibragimov N.Yu.

INFLUENCE OF THERMAL STRESS ON THE FORMATION OF CRACKS IN THE SILICATE COATING OF THE HEAT EXCHANGE TUBE

27

Biological sciences

CHARACTERISTICS OF INFLUENCE ON PROTEOLITIC ACTIVITY OF ECO-TROPHIC RELATIONSHIPS OF XYLOTROPH MACROMYCETES IN FOREST ECOSYSTEM

Huseynova Gulnar Isa

PhD student,

Institute of Microbiology of the

Ministry of Science and Education of the Republic of Azerbaijan

The relative bioecological balance of forest ecosystems depends primarily on the biodiversity of different living organisms living in the forest, as well as the diversity of one species. In other words, the stability of the state of bioecological balance of the forest ecosystem is related to the functional characteristics of its constituent elements. One of the main reasons for the stable bioecological balance of forest ecosystems is their mycobiota. Therefore, it is very important to analyze the mycobiota in the study of the ecological status of any ecosystem, as well as those related to the forest [2; 3; 5].

Xylotrophic macromycetes inhabiting the forest ecosystem participate in the formation of either epiphytic or pathogenic mycobiota in relation to plants. This is done on the basis of ecotrophic principles in the system of plant-fungus interactions. It is known that the ecotrophic relationships between plants and fungi are mainly divided into three parts according to their nature: fungi that feed on living plants or biotrophs; fungi or saprotrophs that feed on nonliving plant substrates; fungi or polytrophs in which the limits of biotrophy or saprotrophy in relation to the plant substrate are not clear. Enzymatic is the basis of any relationship established with plants, regardless of which ecotrophic group fungi belong to. At this time, xylotrophic macromycetes use cellulolytic, amylolytic, lipolytic, pectolytic, xylanolytic and proteolytic enzyme systems. Note that the substrate specificity of fungi is based on their enzymatic effect. Therefore, fungi use proteolytic enzymes in the destruction of the protein mass of plant tissue [1; 4; 7].

During the research, the number of species of xylotrophic macromycetes found in the investigated forest ecosystems was equal to 25, of which 107 strains were extracted into pure culture.

According to a number of indicators, the mushroom species used for the separation of the pure culture are different from each other at the genus and species level, both according to our and literature data [6; 8]. These differences manifest themselves in the eco-trophic relationships of the recorded fungi, the color of the decay they cause in natural conditions, hyphal systems, the shape of the fruit body they form in natural conditions, and their life time. In terms of the mentioned characteristic features, most of the obtained fungi are white rot agents under natural conditions, they are polytrophic from an ecotrophic point of view, and the fruiting bodies they form are annual.

*During the screening process, mushrooms were cultivated for 5 days. According to the obtained results, the activity level of the fungal strains differed from each other even at the strain level. Thus, the proteolytic activity of the strains of fungi such as *Armillaria mellea*, *Bjerkandera adusta*, *Fomitopsis pinicola*, *Fomes fomentarius*, *Ganoderma lucidum*, *Laetiporus sulphureus*, *Inonotus hispidus* was higher than others. The studied fungi did not belong to saprotrophs in terms of ecotrophic relationships, but belonged either to biotrophs, including *Armillaria mellea*, *Fomes fomentarius* and *Inonotus hispidus*, or to fungi that did not have true biotrophy or saprotrophy.*

*It was determined that the proteolytic activity in true saprotrophs (*Polyporus varius*, *Trametes hirsuta*, *T.versicolor*, *T.zonata* and *Schizophyllum commune*) was characterized by relatively low indicators. In our opinion, this fact allows us to note that proteolytic enzymes have a certain indicator quality in the ecotrophic affiliation of fungi. In other words, proteolytic enzymes can be characterized as enzymes that have an active role in the realization of the parasitic lifestyle of fungi.*

The comparison of the obtained results shows that the proteolytic enzymes synthesized by the studied fungi differ from each other from the point of view of ecotrophic groups. Thus, the different reaction to the effect of the used enzyme inhibitors once again proves the above. Apparently, synthesized proteases are found in almost all ecotrophic groups of fungi. However, their ratio varies depending on the species of mushrooms. Although there is no clearly expressed dependence between the ecotrophic division of fungi and the type of proteases, the problem is accompanied by another point, that is, the relative amount of different types of proteases in the direction of facultative saprotrophy, facultative

biotrophy and true biotrophy according to the previous division of fungi. This once again confirms the above-mentioned idea, that is, the connection between proteolytic activity and biotrophy.

In the course of research, the 3 types of fungi selected as active producers differ from each other in terms of ecotrophic relationships. Thus, *I.hispidus* have characteristics of true biotrophs, *G.applanatum* polytrophs, and *B.addusta* saprotrophs. In our opinion, this ecotrophic difference in fungi is one of the main reasons for the formation of specific features observed in the synthesis of proteolytic enzymes by fungi. Thus, the fact that proteolytic enzymes play an important role in pathogenesis has been confirmed in the studies conducted on micromycetes. At the same time, if we take into account the different features in the synthesis of these or other enzymes in macromycetes, it can be expected that proteolytic enzymes have certain specificity in the pathogenic activity of macromycetes. From this point of view, proteolytic enzymes are characterized by higher proteolytic enzymes in fungi belonging to polytrophs, and relatively low indicators in biotrophs and saprotrophs.

Thus, it became clear from the conducted studies that the enzyme system of xylotrophic macromycetes includes all types of proteases, but their ratio depends on the specific species and the ecotrophic relationship of that species.

References

1. Dunaevsky Y.E., Golubeva E.A., Griban T.N., Beliakova G.A., Belozersky M.A. Regulation of secretion of extracellular proteases by filamentous fungus *Botrytis cinerea* // J. Russian Phytopathol. Soc., 2001, v. 2, N 1, p. 39-44
2. Gibertoni T. B., Santos P. J. P., Cavalcanti M. A. Q. Ecological aspects of Aphyllophorales in the Atlantic rain forest in northeast Brazil // Fungal Diversity, 2007, Vol. 25, p.49-67.
3. Gilbert G. Evolutionary ecology of plant diseases in natural ecosystems // Ann. Rev. Phytopathol., 2002, v.40, p.13-43
4. Gupta V.K., Kubicek C.P., Berrin J.-G., Wilson D.W., Couturier M., Berlin A., Edivaldo Filho X., Ezeji T. Fungal enzymes for bio-products from sustainable and waste biomass. Trends Biochem. Sci. 2016;41:633–645.
5. Junninen K., Simila M., Kouki J., Kotiranta H. Assamblages of wood-inhabiting fungi along the gradient of succession and naturalness in boreal pine-dominated forest in Fennoscandia // Ecography, 2006, Vol. 29, p. 75-83.
6. Mosolov V. V., Valueva T. A. Proteinase inhibitors and their function in plants: A review.// Applied Biochemistry and Microbiology, 2005, v. 41, N 3,
7. Palmieri G., Bianco C., Gennamo G., Marino G., Monti M., Sannia G. Purification, characterization, and functional role of a novel extracellular protease from *Pleurotus ostreatus* // Appl. and Environ. Microbiology., 2001, 67, N 6, p. 2754-2759
8. Souza P.M.d., Bittencourt M.L.d.A., Caprara C.C., Freitas M.d., Almeida R.P.C.d., Silveira D., Fonseca Y.M., Ferreira E.X., Pessoa A., Magalhães P.O. A biotechnology perspective of fungal proteases. Braz. J. Microbiol. 2015;46:337–346.

Chemical sciences

STRUCTURE OF THE CHITOSAN AND CROSS-LINKED CHITOSAN FUNCTIONALIZED IRON OXIDE NANOPARTICLES

Karimova Aynura Hidayat
Baku State University

Targeted drug delivery to tumors is a potential advance that can be realized with nanotechnology [1]. The goal of a targeted drug delivery system is to prolong, target, localize and have a protected drug interaction with the diseased tissue. Moreover, it allows for enhancing drug efficacy and reducing adverse side effects by maintaining drug concentration to a minimum in healthy tissues [2]. There are different types of nanocarriers that have been obtained for drug delivery, including liposomes, solid lipid nanoparticles, polymeric nanoparticles, dendrimers, micelles, carbon nanotubes, gold nanoparticles, etc. Over the past few decades, various characterization techniques have been presented and applied for the regulation and prediction of nanocarrier behavior *in vitro* and *in vivo*. The magnetic nanoparticle approach can also be used for targeted drug delivery [3]. The key assertion is that therapeutic agents are encapsulated within, or attached to a magnetic nanoparticle [4, 5]. These particles might have magnetic cores with a polymer or metal coating that can be further functionalized [6, 7]. In addition, they can consist of porous polymers which consist of magnetic nanoparticles precipitated within the pores. By functionalizing the polymer or metal coating it is available to attach, for instance, cytotoxic drugs for targeted chemotherapy. The magnetic field is focused over the target site and the forces on the particles as they enter the field grant them to be collected and extravasated at the target.

In this study, the synthesis of magnetite (Fe_3O_4) nanoparticles was carried out by chemical co-precipitation method [8] and biocompatible chitosan polymer was used as a coating material. Also, modified chitosan-coated Fe_3O_4 nanoparticles were obtained using glutaraldehyde cross-linking agent. The structural characteristics of the samples were studied by X-ray analysis. X-ray diffractograms were obtained at room temperature in the range of 2θ angle 20° - 80° (Figure 1).

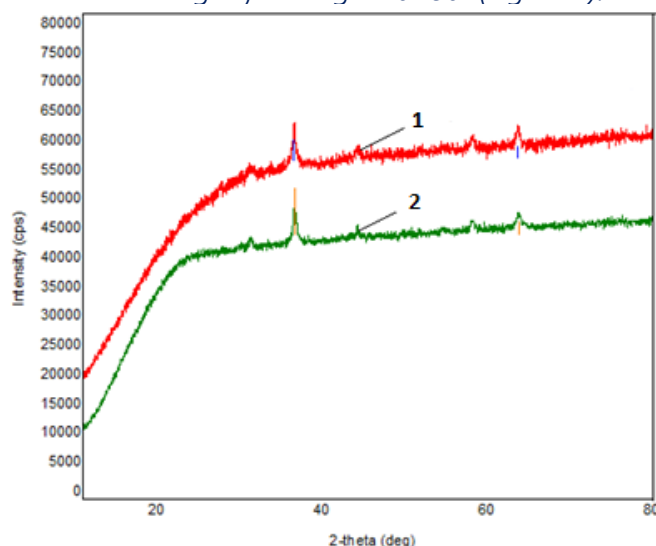


Figure 1. X-ray diffractograms of coated magnetite nanoparticles (1 - Fe_3O_4 @cross-linked chitosan; 2 - Fe_3O_4 @chitosan)

The value of the 2θ angle for both stabilized samples corresponds to Fe_3O_4 nanoparticles with a cubic crystal lattice with a spine structure. The crystallite size of the magnetite nanoparticles was estimated according to the modified Debye-Scherrer equation based on the data obtained from the diffractograms. The average crystallinity size of the stabilized Fe_3O_4 particles was calculated using the Scherrer equation as follows (Table 1):

$$d = 0,9\lambda/\beta\cos\theta$$

Table 1

<i>Examples</i>	<i>Average crystallite size (nm)</i>
$Fe_3O_4@chitosan$	13.2
$Fe_3O_4@cross-linked\ chitosan$	17.1

It was found that surface-modified chitosan polymer-coated nanoparticles ($Fe_3O_4@cross-linked\ chitosan$) had an average crystallite size (17.1 nm), which was larger than the crystallite size (13.2 nm) in the sample coated with chitosan ($Fe_3O_4@chitosan$). This, in turn, can be explained by the formation of a more regular crystal structure during the nucleation process of Fe_3O_4 nanoparticles functionalized with modified, i.e., cross-linked chitosan.

References

1. Veselov, V. V., Nosyrev, A. E., Jicsinszky, L., Alyautdin, R. N., & Cravotto, G. (2022). Targeted delivery methods for Anticancer drugs. *Cancers*, 14(3), 622. <https://doi.org/10.3390/cancers14030622>
2. Issa B., Obaidat, I.M., Albiss B.A., Haik Y. Magnetic nanoparticles: surface effects and properties related to biomedicine applications. *Int. J. Mol. Sci.* 2013, 14 (11), 21266-305.
3. Liu, J. F., Jang, B., Issadore, D., & Tsourkas, A. (2019). Use of magnetic fields and nanoparticles to trigger drug release and improve tumor targeting. *WIREs Nanomedicine and Nanobiotechnology*, 11(6). <https://doi.org/10.1002/wnan.1571>
4. Abdul Mahdi, S. et al. Gene expression and apoptosis response in hepatocellular carcinoma cells induced by biocompatible polymer/magnetic nanoparticles containing 5-Fluorouracil. *Electron. J. Biotechnol.* 52, 21–28. <https://doi.org/10.1016/j.ejbt.2021.04.001> (2021).
5. Ulbrich, K., Holá, K., Šubr, V., Bakandritsos, A., Tuček, J., & Zbořil, R. (2016). Targeted drug delivery with polymers and magnetic nanoparticles: Covalent and Noncovalent approaches, release control, and clinical studies. *Chemical Reviews*, 116(9), 5338-5431.
6. Mylkie, K., Nowak, P., Rybczynski, P., & Ziegler-Borowska, M. (2021). Polymer-coated magnetite nanoparticles for protein immobilization. *Materials*, 14(2), 248. <https://doi.org/10.3390/ma14020248>
7. Lau, E. C., Åhlén, M., Cheung, O., Ganin, A. Y., Smith, D. G., & Yiu, H. H. (2023). Gold-iron oxide (Au/Fe₃O₄) magnetic nanoparticles as the nanoplatform for binding of bioactive molecules through self-assembly. *Frontiers in Molecular Biosciences*, 10. <https://doi.org/10.3389/fmolb.2023.1143190>
8. Yuso A.H., Salimi M.N., Jamlos M.F. A review: Synthetic strategy control of magnetite nanoparticles production. *Adv. Nano Res.* 2018, 6, 1.

Mathematical sciences

FORMATION OF STUDENTS' MATHEMATICAL LITERACY DURING THE STUDY OF THE TOPIC "VECTORS"

Shapenova Bakhytgul Askharovna

Atyrau University named after Khalel Dosmukhamedov,
Kazakhstan, Atyrau city

«ВЕКТОРЛАР» ТАҚЫРЫБЫН ОҚУ БАРЫСЫНДА ОҚУШЫЛАРДЫҢ МАТЕМАТИКАЛЫҚ САУАТТЫЛЫҒЫН ҚАЛЫПТАСТЫРУ.

Шапенова Бахытгуль Асхаровна

Х.Досмухамедов атындағы Атырау университеті.
Қазақстан, Атырау қ.

Abstract

In this paper, we consider the main properties of vectors, which should be attributed to vector algebra. A classification of problems and methods for their solution using the vector method is given. The purpose of the article is not so much to retell the educational material reflected in all school geometry textbooks, but to focus on some issues that cause the greatest methodological difficulty, issues that activate the mental activity of students, which can serve as the basis for small educational research.

Аннотация

Бұл жұмыста біз векторлардың негізгі қасиеттерін қарастырамыз, оларды векторлық алгебраға жатқызу керек. Есептердің классификациясы және оларды векторлық әдіс арқылы шешу әдістері келтірілген. Мақаланың мақсаты мектептегі геометрия оқулықтарының барлығында көрсетілген оқу материалын қайталау емес, ең үлкен әдістемелік қиындық тудыратын кейбір мәселелерге, оқушылардың ақыл-ой әрекетін белсендіретін мәселелерге тоқталу. шағын білім беру зерттеулері.

Keywords: Vector, point, adding and subtracting vectors, multiplying a vector by a number, vector direction, absolute value (module), zero vector, vector coordinate, polygon rule, scalar product of a vector, collinear and non-collinear vector.

Кілт сөздер: Вектор, нүкте, векторларды қосу және азайту, векторды санға көбейту, векторлық бағыт, абсолютті шама (модуль), нөлдік вектор, вектор координатасы, көпбұрыштар ережесі, вектордың скаляр көбейтіндісі, коллиенар және коллиенар емес вектор.

Қазіргі кезде мектепте математиканы оқыту мәселелеріне көп көңіл бөліне бастады. Бұл ғылыми-техникалық прогресс пен ғылымды қажет ететін өндірістердің дамуымен байланысты. Соңғы кездері қарқынды дамып келе жатқан және үлкен практикалық маңызы бар техникалық ғылымдарды, мысалы, ақпараттық технологиялар, электроника және т.б., математикалық аппаратсыз елестету мүмкін емес.

Математикалық сауаттылықтың негізі дәл мектепте қаланады, сондықтан осы процеске қатысты мәселелерді зерттеуге көп көңіл бөлінеді. Математика – мектептегі негізгі пәндердің бірі. Ол оқушылардан ерік-жігер мен ақыл-ойды, дамыған қиялды және зейінді шоғырландыруды талап етеді. Математика оқушының тұлғасын дамытады. Математиканы оқу мектеп оқушыларының логикалық ойлауын дамытуға айтарлықтай ықпал етіп, ой-өрісін кеңейтеді.

Мектепте математикалық білім беруде геометрия курсы үлкен орын алады және маңызды рөл атқарады. Ол VI-X сыныптарда математикаға арналған оқыту уақытының шамамен 40% құрайды, ал геометрия мектептегі барлық уақыт бойы оқытылады. Геометрияның дәстүрлі әдістерімен қатар үшбұрыштардың теңдігі мен ұқсастығын, тригонометрия мен алгебраны (теңдеулерді) қолданатын аксиоматикалық әдіс, геометриялық

түрлендірулер әдісі, координаталық және векторлық әдістер, математикалық талдау әдістері жүйелі түрде қолданылады.

Жазықтықтағы векторларды зерттеуге тікелей байланысты материалға математикадан мектеп бағдарламасында біршама уақыт беріледі. Дегенмен, орта мектептегі геометрия курсы векторлық бейнелерге негізделгенін атап өткен жөн. Бұл материал мектеп оқушыларының көптеген геометриялық және физикалық есептерді шешуде маңызды рөл атқарады, кеңістіктегі вектор ұғымын зерттеудің негізін қалады.

Векторларды оқу VIII сыныптың төртінші тоқсанында басталады. Студенттер бұл материалды сәтті меңгеру үшін олар жазықтықтағы декарттық координаталар ұғымымен, кесінді ұғымымен таныс болуы, жазықтықтағы координаталарды және жазықтықтағы екі нүктенің арақашықтығын анықтай алуы, сонымен қатар параллель тасымалдау ұғымының мағынасын және оның қасиеттерін білуі.

Вектор ұғымы іргелі ұғымдардың бірі, сондықтан ол анық емес және көп қырлы. Ескі оқулықтарда «тіркелген (байланысты) вектор» (бұл қазіргі бағытталған сегмент) және «еркін вектор» (қазіргі векторға сәйкес) ұғымдары бар. Сызықтық алгебра тұрғысынан вектор дегеніміз векторлық кеңістіктің элементі, белгілі бір талаптарды қанағаттандыратын санға қосу және көбейту амалдары анықталған объект. Нүктенің радиус векторымен сәйкестендірілуі вектор жазықтықтың (кеңістіктің) нүктесі немесе жұп (үш) сандар оның координаталары деп қарастыруға мүмкіндік береді. Вектор жазықтықтың (кеңістіктің) параллель трансляциясы деп те айтуға болады. Бұл тәсіл Колмогоров пен Скопец оқулықтарын тарату кезінде жалпы қабылданған. Векторды анықтауда бірлескен бағыт түсінігі әсіресе қиын, оқулықтардың көпшілігі визуалды бейнелерге жүгінеді. Вектордың координаттық анықтамасына жүгіну арқылы жеткілікті қатаң ұсынуға болады, дегенмен бұл жағдайда көріну жоғалады. Бұл тәсілдің элементтері Погореловтың «Геометрия 7-9» оқулығында, бірақ басқа тәсілдермен өте оғаш араласқан.

Қазір негізінен мектептерде қолданылып жүрген Атанасян Л.С. оқулығында материал оқушыларға келесі ретпен берілген:

1) Вектор туралы түсінік

- Вектор туралы түсінік
- Векторлардың теңдігі
- Берілген нүктеден векторды кейінге қалдыру

2) Векторларды қосу және азайту

- Екі вектордың қосындысы
- Векторларды қосу заңдары. параллелограмм ережесі
- Бірнеше векторлардың қосындысы
- Векторларды алу

3) Векторды санға көбейту. Есептерді шешуге векторларды қолдану.

- вектордың санға көбейтіндісі
- Есептер шығаруға векторларды қолдану
- Трапецияның ортаңғы сызығы

4) векторлық координаталар. Екі коллинеар емес вектордағы вектордың ыдырауы.

Оқулықта Погорелов А.В. [4] Материал оқушыларға келесі ретпен ұсынылады:

1) Негізгі ұғымдар берілген: вектор, векторлық бағыт, абсолютті шама (модуль), нөлдік вектор.

2) Векторлардың теңдігі туралы түсінік қарастырылады.

3) Вектордың координаталары анықталады.

4) Векторларға қатысты әрекеттер қарастырылады: векторларды қосу (азайту), векторды санға көбейту. Күштерді қосу мысалын қолдана отырып, физикалық есептер шығаруда векторлардың қалай қолданылатынын түсінеді.

5) Коллинеар векторлар туралы түсінік беріліп, вектордың екі коллинеар емес вектордағы кеңеюлері қарастырылады.

6) Векторлардың скаляр көбейтіндісі туралы түсінік қарастырылады.

7) Бірлік вектор, координат векторы (орта) ұғымдары беріліп, вектордың координаталық осьтер бойымен кеңеюі қарастырылады.

Вектор туралы түсінік. Векторлық теңдік. Векторларды қосу және азайту. Векторды санға көбейту. Екі коллинеар емес вектордағы вектордың ыдырауы. Векторлық координаталар.

Координаталардағы ең қарапайым есептер. Шеңбер мен түзудің теңдеулері. Есептерді шешуде векторлар мен координаталарды қолдану.

Негізгі мақсат студенттерді векторларға бағытталған кесінділер ретіндегі әрекеттерді орындауға үйрету, бұл физикада векторларды қолдану үшін маңызды; геометриялық есептерді шығаруда векторлар мен координаталар әдісін қолданумен таныстыру. Вектор бағытталған кесінді ретінде анықталады, ал векторлардағы әрекеттер физикада әдеттегідей, яғни бағытталған сегменттері бар әрекеттер сияқты енгізіледі. Векторларға амалдарды орындау дағдыларын дамытуға басты назар аудару керек (үшбұрыш пен параллелограмм ережелері бойынша векторларды қосу, берілген екі вектордың айырмасына тең векторды, сондай-ақ мынаған тең векторды салу). берілген вектордың берілген санға көбейтіндісі).

Мысалдар геометриялық есептерді шешу үшін векторларды қалай қолдануға болатынын көрсетеді. Нақты геометриялық есептердегі кесіндінің ортасының координаталары, екі нүкте арасындағы қашықтық, шеңбер мен түзу теңдеулері формулаларын қолданудың тиімділігі көрсетіліп, сол арқылы геометриялық фигураларды зерттеу туралы түсінік беріледі. алгебра әдістері.

Оқушылардың дайындық деңгейіне қойылатын талаптар.

9-сыныптың геометрия курсын оқу нәтижесінде оқушылар:

- дүние объектілерін сипаттау үшін геометриялық тілді қолдану;
- геометриялық пішіндерді тану, олардың өзара орналасуын ажырату;
- геометриялық пішіндерді бейнелеу; тапсырмалардың шарты бойынша сызбаларды орындау; фигураларды түрлендіруді жүзеге асыру;

- геометриялық шамалардың (ұзындықтар, бұрыштар, аудандар) мәндерін есептеу, оның ішінде: бұрыштардың берілген мәндерінен тригонометриялық функциялардың мәнін анықтау; тригонометриялық функциялардың мәндерін олардың біреуінің мәні бойынша табу; үшбұрыштардың, дөңгелек доғалардың қабырғаларын, бұрыштары мен аудандарын, негізгі геометриялық фигуралардың аудандарын және олардан құралған фигураларды табу;

- қосымша құрылыстарды, алгебралық және тригонометриялық аппараттарды, симметриялы ойларды пайдалана отырып, фигуралардың зерттелген қасиеттері мен олардың арасындағы қатынастар негізінде геометриялық тапсырмаларды шешу;

- есептерді шешу, белгілі теоремаларды қолдану, оларды қолдану мүмкіндіктерін ашу кезінде дәлелді негіздеме жүргізу;

- кеңістіктегі ең қарапайым планиметриялық есептерді шығару.

Кейбір теоремаларды векторларды пайдаланып дәлелдеуді қарастырыңыз.

Теорема 1.

Ромбтың диагональдары өзара перпендикуляр.

Дәлелдеу.

$ABCD$ берілген ромб болсын (7-сурет). Белгілеуді енгіземіз: $AB = a, BC = c$. Ромб анықтамасынан: $AB = DC = a, AD = BC = c$. $AC = a + b$ векторларының қосындысы мен айырмасының анықтамасы бойынша; $DB \perp AC$ - с. $AC \cdot DB = (a + c) \cdot (a - c) = a^2 - c^2$ қарастырайық.

Ромбтың қабырғалары тең болғандықтан, $a = b$. Демек, $AC \cdot DB = 0$. Соңғысынан біз аламыз.

2-теорема.

Трапецияның орта сызығы табанына параллель және олардың қосындысының жартысына тең.

Дәлелдеу.

MN – $ABCD$ трапециясының орта сызығы болсын. $MN \parallel AD$ және $MN = \frac{AD + BC}{2}$

екенін дәлелдейік.

Көпбұрыш ережесі бойынша $MN = MB + BC + CN$ және $MN = MA + AD + DN$. Осы теңдіктерді қосқанда мынаны аламыз: $2MN = (MB + MA) + (BC + AD) + (CN + DN)$.

Бірақ M және N – AB және CD жақтарының ортаңғы нүктелері, сондықтан $MB + MA = 0$ және $CN + DN = 0$. Демек, $2MN = AD + BC$, одан $MN = \frac{AD + BC}{2}$. AD және

BC векторлары кодиректорлы болғандықтан, MN және AD векторлары да кодиректорлы болады, ал вектордың ұзындығы $AD + BC$ -ге тең. Бұл $MN \uparrow \downarrow AD$ және $MN = \frac{AD + BC}{2}$ дегенді білдіреді.

Тақырыпты базалық деңгейде зерделеу нәтижесінде оқушылар мыналарды біле алады:

- вектор, қосынды, векторлар айырымы, вектордың санға көбейтіндісі, векторлар арасындағы бұрыш, векторлардың скаляр көбейтіндісі, жазықтықтағы координаталар, вектор координаталары ұғымдарымен әрекет ету;

- векторлар бойынша әрекеттерді орындау (қосу, алу, санға көбейту), скаляр көбейтіндісін есептеу, қарапайым жағдайларда векторлар арасындағы бұрышты анықтау, векторды құрамдас бөліктерге бөлу, физикадан алған білімдерін қолдану, есептеу формуласын қолдану; белгілі координаталарды пайдаланып нүктелер арасындағы қашықтықты, есептерді шешу үшін фигуралар теңдеулерін қолдану;

- ұзындықтарды, бұрыштарды есептеуге арналған геометриялық есептерді шығару үшін векторлар мен координаттарды қолдану.

Олай болса, сабақта мультимедиялық оқу құралдарын қолдану сәнге деген құрмет емес, мұғалімнің көп қырлы шығармашылық жұмысын компьютердің ығына ығыстырудың жолы емес, оқу үдерісін белсендіруге мүмкіндік беретін құралдардың бірі ғана. танымдық белсенділігін арттыру, сабақтың тиімділігін арттыру.

Пайдаланған әдебиеттер

1. Aleksandrov, A.D. *Geometry [Text]: an experimental textbook for 7th grade students. secondary educational institutions* / A.D. Alexandrov, A.L. Werner, V.I. Ginger. - M.: Miro, 1994. - 200 p.: ill. [Опубликовано на русском языке]
2. Aleksandrov, A.D. *Geometry for cell 8 - 9. [Text]: Proc. allowance for school students. and cl. deep learning mathematics* / A.D. Alexandrov, A.L. Werner, V.I. Ginger. - M.: Agartu, 1991. - 415 p.: ill. [Опубликовано на русском языке]
3. *Basic ICT competence as a basis for teacher's Internet education [Electronic document]* / Abstracts of the report A.A. Elizarova at the RELARN-2004 conference, June 2004, 2004. - RELARN Community. - (http://www.relarn.ru/conf/conf2004/section3/3_11.html) 23.12.09. [Опубликовано на русском языке]
4. *Geometry 7-9 [Text]: Proc. institutions for general education* / L.S. Atanasyan, V.F. Butuzov, S.B. Kadomtsev and others - 16th edition. - M.: Education, 2006. - 384 p.: ill. [Опубликовано на русском языке]
5. Grebenyuk, O.S. *Basics of individual pedagogy [Text]: Proc. allowance* / O.S. Grebenyuk, T.B. Grebenyuk. - Kaliningrad. state un-t. - Kaliningrad, 2000. - 572 p. [Опубликовано на русском языке]

Philological sciences

ARTIFICIAL INTELLIGENCE AND DISCOURSE MAKERS IN ENGLISH

Ahmad Kasem Haj Ali

Ph.D. Student, University: Western Caspian University

Abstract

The paper tries to investigate the connection between AI and the people who make the discourse in English is a complicated one with many facets

The following objectives are set to achieve the aim of the paper:

- 1. Shed light on Ethics and the Use of Discourse Makers in English*
- 2. Morals and new media*

The methods of the research are quantitative and qualitative. Frequency analysis, discourse analysis, and other methods will be used to study our corpora.

Keywords: *AI, DMs, NLP, Ethics, Morals, Media*

Introduction

The connection between AI and the people who make the discourse in English is a complicated one with many facets. On the one hand, AI algorithms have the potential to be utilized in order to improve readability and enhance the efficiency of discourse creators in the English language. On the other side, the rising utilization of AI in the production of content raises problems regarding the authenticity and legitimacy of discourse makers.

Natural language processing (NLP) algorithms are one use of artificial intelligence that can be helpful to those who construct speech (Jones et al. 6). These algorithms can be applied to the analysis of text in order to locate places in which the readability of the text can be enhanced. For instance, you can use them to identify complicated language structures, an excessive amount of jargon, and other characteristics that can make it difficult to understand something. AI algorithms can assist discourse creators in producing content that is more approachable and engaging by identifying these challenges and providing solutions to them.

The aim of this paper is to:

- 1. Shed light on Ethics and the Use of Discourse Makers in English*
- 2. Morals and new media*

The employment of algorithms that generate content is another way that AI can be of assistance to those who are creating dialogue. These algorithms can be used to automatically generate material based on templates or rules that have been set in advance. For example, you can use them to produce headlines, summaries, or even whole articles with them. Discourse creators can save time and resources by automating these procedures, all while maintaining a consistent style and tone in their work. The growing use of AI in the production of content raises issues about the authenticity and legitimacy of those who generate discourse. It is becoming increasingly difficult to differentiate between information that was written by humans and content that was made by computers as AI algorithms continue to advance in their level of sophistication. Because of this, the readers' trust in the authors of the discourse can be damaged, and the influence of their work can be lessened.

In addition to this, the implementation of AI in the production of material has the potential to increase preexisting prejudices and disparities. For instance, if AI algorithms are trained on data that displays prejudiced or discriminating ideas, then it is possible that such prejudices will be reproduced in the material that the algorithms generate. This can result in the continuation of harmful stereotypes as well as practices that exclude certain groups.

In spite of these issues, there is a substantial possibility that AI and the makers of discourse might collaborate in order to produce material that is of high quality, easily accessible, and that both engages and informs readers. Discourse makers are able to develop material that is more successful and influential than either human creativity or machine intelligence could achieve on their own by harnessing the capabilities of both of these factors in their work.

Ultimately, the interaction between AI and the creators of discourse in English is intricate and fraught with a variety of complexities. Concerns concerning authenticity, legitimacy, and bias have been

raised in relation to artificial intelligence (AI), despite the fact that it has the potential to be a useful tool for strengthening the effectiveness of discourse producers and improving readability. As the field of artificial intelligence continues to advance, it will be essential for those who shape the discourse to give careful consideration to the part that technology plays in their work and to make certain that they uphold the highest possible standards of both quality and ethics.

1. Ethics and the Use of Discourse Markers in English

Discourse markers play such an important part in the process of creating and comprehending language, the use of them raises problems about morality. Linguists have a responsibility to consider the effects that discourse markers have on both individuals and communities, particularly when those discourse markers are used to uphold negative views or stereotypes. Discourse markers, such as the use of "uh" or "like" to imply that another person is unintelligent, are one example of how racial or gendered stereotypes can be reinforced through the use of language.

Linguists need to take into consideration a number of different factors, one of which is power relations in the deployment of discourse markers. The use of certain discourse markers might be misconstrued as an effort to dominate or exert control over the discussion, and this is especially true in circumstances in which one individual or group possesses a greater amount of social or cultural capital than another. This can generate sentiments of alienation and exclusion in persons who are not familiar with the meaning of the discourse markers in question or do not share those indicators themselves.

The manner in which discourse markers are utilised may also have an impact on the ethics of research. Researchers have a responsibility to ensure that they obtain the informed permission of participants and that they do nothing to jeopardise or harm people through the manipulation of language use. This is of utmost importance in studies involving minors as well as individuals whose cognitive or linguistic abilities are impaired, as participants in these types of studies may be more vulnerable or have less agency.

Linguists should use extreme caution when employing discourse markers and give serious consideration to the potential repercussions of doing so in light of the ethical concerns that have been raised. If researchers want to apply inclusive and respectful discourse markers that are aimed at empowering individuals and groups, they first need to be aware of the power dynamics that are at play in the use of language. When researchers find evidence that the use of particular discourse markers is contributing to the perpetuation of harmful attitudes or stereotypes, they should work to question dominant narratives and advance more inclusive and equitable modes of communication. In addition, they should work to advance more inclusive and equitable modes of communication.

2. Morals and new media

When utilised in modern media such as social networks, online discussion boards, and electronic discourse, discourse markers give rise to new ethical problems. The use of emoticons, hashtags, and acronyms are all examples of discourse markers, and they have a significant impact on online communication. Yet, there may be ethical problems with its implementation because there are difficulties of veracity, exclusion, and secrecy.

When it comes to ethical considerations, accuracy is of the utmost importance when employing discourse markers in digital media. In written or electronic communication, discourse markers are used frequently to express the attitude or feeling of the speaker. Yet, the participants' cultural backgrounds as well as the surrounding surroundings may cause some difference in how they interpret these signals. Failure to correctly perceive or communicate discourse markers can lead to a variety of problems, including disagreements, misunderstandings, and the spread of incorrect information. Users of digital platforms have an obligation to consider the likelihood of misunderstandings and strive for greater specificity in their use of discourse markers in order to increase the likelihood that their communications will be understood in the manner in which they were intended.

When it comes to ethical considerations involving the utilisation of discourse markers in new media, inclusion should take precedence. Depending on the discourse markers that are utilised, the manner in which people communicate with one another online may either be more or less inviting of individuals from a variety of backgrounds and points of view. When certain speech indicators are utilised, it is possible for individuals who come from a variety of racial, ethnic, religious, linguistic, or socioeconomic backgrounds to be excluded from dialogues. Users of new media have a responsibility to be aware of the implications of excluding people and to make concerted efforts to incorporate them into the discussions they have with others by employing a wide range of inclusive discourse markers in their writing and in their spoken communication.

The use of discourse markers in new media raises moral concerns regarding the invasion of personal space. When the usage of discourse markers such as hashtags and location identifiers reveals the whereabouts and activities of persons, there is a justifiable basis for concerns pertaining to privacy and security. Users of new media should be aware of the potential risks to their privacy that are linked with the use of discourse markers, and they should take the appropriate safeguards to protect not just their own personal information but also the personal information of others.

The utilization of discourse markers in contemporary media gives rise to additional worries relating to the gathering of data and the processing of algorithms. When algorithms use discourse markers for data analysis, sentiment analysis, or content suggestion, ethical considerations around data privacy, permission, and algorithmic biases occur. When using discourse markers, consumers of modern media would be well to give some thought to the context of data collection and algorithmic processing.

Ethical Considerations		News Media	Entertainment Media
Accuracy		The data, facts, and events that are presented by the discourse markers in the news media ought to be presented in an open and honest manner. Misunderstandings, prejudice, and disagreements are all potential outcomes of incorrectly using or interpreting discourse markers in a conversation.	Congruence is required to exist between the discourse markers used in a piece of entertainment media and the tone, mood, and genre that are intended to be conveyed by the work. The improper or careless use of discourse markers can lead to a variety of problematic outcomes, including misrepresentation, stereotyping, and cultural appropriation.
Inclusivity		Language markers should be used by media sources in a way that is both open to and respectful of the diverse identities, cultures, and points of view that exist in the world. Reporters have a responsibility to avoid employing speech markers that can be construed in a way that is discriminatory or exclusive if they want to promote diversity and inclusion in the news.	It is important for those working in the entertainment sector to be aware of the consequences of the discourse markers they use. It is necessary to abstain from using language that is cruel, discriminatory, or insulting if one wishes to encourage acceptance and understanding of the many different groups and identities that exist.
Privacy		The identification of individuals, their locations, or the activities they are engaged in should not be divulged through the use of discourse markers in the media because this could put them in danger. While reporting the news, discourse markers should be utilised with caution to safeguard people's privacy and avoid betraying their faith in the media.	It is of the utmost importance that, in this day and age of social media and online interactions, entertainment media refrain from using discourse markers that may put users' privacy at risk or do not have their consent. In today's popular culture, the utilisation of discourse markers is always required to be carried out with the person's knowledge and permission.
Data Processing		Discourse markers are often used in the news media, and algorithms could process these markers to do data analysis, sentiment analysis, and content suggestion. Protecting the privacy of users of discourse markers, gaining informed consent, and addressing the possibility for algorithmic prejudice are all important ethical factors that should be taken into account when using discourse markers in the media.	Processing discourse markers used in entertainment media can also be done by algorithms, which can then be used to make content recommendations, create user profiles, or show targeted adverts. When it comes to the use of discourse markers in forms of entertainment media, there are a variety of moral considerations that need to be taken into account.

References

1. Aijmer, Karin. "English discourse particles." *English Discourse Particles* 2002: 1-315.

2. Brinton, Laurel J., and Elizabeth Closs Traugott. *Lexicalization and language change*. Cambridge University Press, 2005.
3. Di Ferrante, Laura. "Transitioning between small talk and work talk through discourse markers: Evidence from a workplace spoken corpus." (2021): 7-30.
4. Eggins, S., & Slade, D. (1997). *Analyzing casual conversation*. Cassell.
5. Faisal, Wafaa Mokhlos. "The Discourse Marker (Well) in Selected Talk Shows: A Discourse Analysis Study1."
6. Fraser, Bruce. "An approach to discourse markers." *Journal of pragmatics* 14.3 (1990): 383-398.
7. Halliday, Michael Alexander Kirkwood. "Learning how to mean." *Foundations of language development*. Academic Press, 1975. 239-265.
8. Jiang, Lianjiang, and Michelle Mingyue Gu. "Understanding youths' civic participation online: a digital multimodal composing perspective." *Learning, Media and Technology* 47.4 (2022): 537-556.
9. Jiang, Lianjiang, and Michelle Mingyue Gu. "Understanding youths' civic participation online: a digital multimodal composing perspective." *Learning, Media and Technology* 47.4 (2022): 537-556.
10. Lakoff, R. (1973). *The logic of politeness; or, minding your p's and q's*. *Papers from the Ninth Regional Meeting, Chicago Linguistic Society*, 292-305.
11. Nilsson, Bo, and Eric Carlsson. "Swedish politicians and new media: Democracy, identity and populism in a digital discourse." *New Media & Society* 16.4 (2014): 655-671.
12. Pedroni, Marco. "Two decades of fashion blogging and influencing: A critical overview." *Fashion Theory* (2022): 1-32.
13. Rhee, Seongha. "On determinants of discourse marker functions: Grammaticalization and discourse-analytic perspectives." *Linguistic Research* 37.2 (2020): 289-325.
14. Rone, Julia. "Far right alternative news media as 'indignation mobilization mechanisms': how the far right opposed the Global Compact for Migration." *Information, Communication & Society* 25.9 (2022): 1333-1350.
15. Schiffrin, Deborah. "Discourse markers: Language, meaning, and context." *The handbook of discourse analysis* (2005): 54-75.
16. Schiffrin, Deborah. *Discourse markers*. No. 5. Cambridge University Press, 1987.
17. Schourup, L. (1985). *Common discourse particles in English conversation*. Unpublished doctoral dissertation, University of California, Los Angeles.
18. Shirazi, Farid. "Social media and the social movements in the Middle East and North Africa: A critical discourse analysis." *Information Technology & People* (2013). Schourup, L. (1985). *Common discourse particles in English conversation*. Unpublished doctoral dissertation, University of California, Los Angeles.
19. Tagliamonte, Sali A. *Analysing sociolinguistic variation*. Cambridge University Press, 2006.
20. Uzunoğlu, Ebru, and Sema Misci Kip. "Brand communication through digital influencers: Leveraging blogger engagement." *International journal of information management* 34.5 (2014): 592-602.

THE ROLE OF DISCOURSE MARKERS IN ENGLISH MEDIA ACROSS GENRES

Ahmad Kasem Haj Ali

Ph.D. Student, Western Caspian University

Abstract

The paper tries to investigate the use of discourse markers in the traditional and new media discourses in the written and spoken genres. The following objectives are set to achieve the aim of the study:

1. To analyze the functions and the frequency of discourse markers in four genres: (interviews and news; blogs and editorials).
2. To compare the characteristic patterns of forms and functions of discourse markers in each genre.

The methods of the research are quantitative and qualitative. Frequency analysis, discourse analysis, and other methods will be used to study our corpora.

Keywords: Textual DMs, Interpersonal DMs, Blogs, Genre, Media

Introduction

This thesis investigates the frequency and functions of discourse markers (DMs) in four genres of media discourse: news, interviews, opinions, and blogs. This study employs quantitative and qualitative methods to investigate the familiar shapes and functions of DMs across categories and the instances and spread of DMs within each. The pedagogical implications of the study's findings are also discussed. The research examines the use of DMs in spoken and written media conversations.

Study Purpose

This study examines DM to use in news, interviews, comments, and blogs. The study examines discourse marker form and function across genres using quantitative and qualitative methods. Discourse indicators are divided into textual and interpersonal categories based on the work of Brinton, Aijmer, and Halliday. A contrastive corpus of written and spoken texts is used in the research.

This research is novel in two ways: first, it provides the first analysis of the textual and interpersonal functions of discourse markers in the four genres; second, it shows that the spoken genres of interview and news use discourse markers similarly, while the written genre of blogs uses them differently. Discourse markers can help organize speech and writing, making the study educational. Linguists, media studies authors, and others may benefit from the results.

This study calculates discourse marker frequency and distribution in each genre using descriptive statistics to provide a quantitative basis for a qualitative analysis of DM functions. The written and spoken media genres will be based on The Washington Post's editorials and online discussions. The study's findings will be presented in four parts: a brief literature review of text linguistics' foundational concepts; an examination of discourse markers' definition and functions; a breakdown of DMs' appearance and role across the four genres; and a comparison of media's spoken and written discourse.

The study aims to help language teachers, linguists, and media professionals understand speech cues across media categories.

Literature Review

Discourse markers can be categorized and defined in several ways, all of which have been suggested by various academics in language study and discourse analysis. According to Schiffrin's definition, discourse markers are linguistic components that serve the dual purpose of indicating connections between assertions and providing organization to the discourse (1987; 2005). Textual and conversational discourse markers are the two categories that Brinton et al. (2005) identified for discourse markers. Interpersonal markers disclose the speaker's emotional involvement in the conversation, whereas textual markers indicate the connection between sentences. Markers that organize discourse, markers that facilitate interaction, and markers that indicate an individual's attitude or viewpoint are the three categories Aijmer (2002) classified discourse markers into (Nilsson, Bo & Eric). She asserted that posture markers could communicate the speaker's subjective views, that interactive markers make it simpler for the speaker to connect with the audience, and that organizational discourse markers can give the text structure (Aijmer; Faisal; Rone; Schourup; Tagliamonte).

Jiang, Lianjiang, and Michelle (2013) proposed an alternative classification system for discourse markers comprising the following six classes: pragmatic particles, contrastive markers, referencing expressions, linking adverbials, discourse coordinators, and attitude markers. According to his reasoning, hedging markers such as "however" and "but" serve to signal a difference between two statements, whereas pragmatic particles such as "like" and "you know" serve to signal a pragmatic function in the context of the sentence. Referring words include expressions such as "this" and "that," while connecting adverbs such as "therefore" and "consequently" establish a temporal or causal relationship between statements. Attitudinal indicators, such as "honestly" and "unfortunately," communicate the emotional attitude of the speaker, and discourse organizers, such as "firstly" and "further," help structure the text by organizing the ideas presented in it.

Research of a substantial nature has also been conducted on discourse marks and the various literary traditions in which they are employed. For instance, in 2021, Di Ferrante researched the function of discourse markers in narratives and reported speech. He discovered that these discourse markers play an important role in organizing the discourse and demonstrating the speaker's viewpoint (Di Ferrante; Rhee). In a manner very similar to that in which Schifffrin (1987) investigated the discourse markers utilized in informal conversation, he concluded that these markers function as signals to manage turn-taking and demonstrate the speaker's attitude concerning the discourse (Schifffrin).

According to Di Ferrante's (2021) research findings, the organization and coherence of scientific writings primarily depend on the presence of discourse markers. He argued that readers could better follow the argument and select essential points because discourse markers identify connections between sentences. He said this makes it easier for readers to do both. After researching the function of discourse markers in professional emails, De Ferrante (2021) concluded that these markers assist in establishing a professional tone, organizing ideas, and drawing attention to important points.

It is widely acknowledged that discourse indicators are an essential component of the curriculum for the English language. According to Eggins and Slade (1997), teaching students about discourse indicators can help them become more fluent communicators and increase their ability to comprehend the arguments put forth by others (Eggins & Slade). A similar argument was made by Fraser (1990), who claimed that students' work is enhanced when discourse marks establish continuity and coherence in writing.

Throughout the past few years, discourse indicators have been the subject of much attention, specifically in internet conversation. For example, Brinton, Laurel, et al. (2002) investigated the discourse markers used in Facebook status updates and discovered that these markers are essential in communicating the speaker's social identity and constructing relationships with the audience. De Ferrante (2021) performed a comparative investigation of Twitter discourse markers and discovered that these tools are used to indicate assessment and position and organize conversations. Additionally, they found that these tools are used to organize conversations.

Proceeding to the concept of coherence is how the various components of a piece of writing are linked to one another to create a unified whole. The use of discourse markers, which show how one portion of writing connects to another, contributes to coherence. Reference, replacement, and ellipsis are all instances of cohesive syntactic ties; however, Halliday (1975) point out that cohesive lexical ties are another choice that can be utilized (such as conjunctions and discourse markers). Because of this, discourse indicators are crucial to developing well-structured compositions.

According to Brinton, discourse indicators can be broadly divided into two categories: written and conversational. Textual discourse markers signal the structure and consistency of the text itself, whereas interpersonal discourse markers signal the speaker's attitude, the addressee's participation, and other pragmatic components of discourse. Interpersonal discourse markers can be broken down into two categories: Aijmer (2002) makes a differentiation very similar to this one between these two types of discourse markers; however, he also includes a third group of discourse markers that he calls textual-interactive markers. These markers combine aspects of both types of markers. Halliday offers an equivalent classification based on written, interpersonal, and interactional discourse indicators.

The comprehensive literature review reveals the interrelationships among the concepts of discourse, category, cohesion, and discourse indicators in examining written and spoken texts and the implications of these concepts. Students of the English language and their teachers can improve the effectiveness and consistency of their written work by understanding how discourse marks are used across categories in their written work. The next section of the investigation focuses on how discourse markers are utilized across various forms of media, including news, interviews, viewpoints, and blogs, among other types of writing.

<i>Genre</i>	<i>Frequency of DMs</i>	<i>Textual functions</i>	<i>Interpersonal functions</i>
<i>News and interviews</i>	<i>High</i>	<i>Signal changes in topic or direction, link ideas, mark emphasis or contrast, and indicate source or attribution (Shirazi).</i>	<i>Mark agreement, disagreement, or doubt; indicate the attitude or stance of the speaker, express politeness or tentativeness, manage the conversation, and convey the speaker's personality or style (Faisal).</i>
<i>Editorials</i>	<i>Moderate</i>	<i>Signal changes in topic or direction, link ideas, mark emphasis or contrast, indicate source or attribution, and indicate the speaker's opinion or argument.</i>	<i>Mark agreement, disagreement, or doubt; indicate the attitude or stance of the speaker; express politeness or tentativeness; manage the conversation; convey the speaker's personality or style</i>
<i>Blogs</i>	<i>Low</i>	<i>Signal changes in topic or direction, link ideas, indicate source or attribution and express the writer's personal opinion or style.</i>	<i>Indicate the attitude or stance of the writer, manage the conversation, convey the writer's personality or style, express politeness or tentativeness</i>
<i>Differences/Similarities</i>		<i>Similar patterns of use of DMs in news and interviews, with more emphasis on interpersonal functions in interviews; Differences between blogs and other genres in terms of frequency and functions of DMs (Uzunoglu, Ebru & Sema)</i>	

When it comes to certain types of content, such as news and interviews, the use of discourse markers is extremely important because these markers indicate shifts in subject or direction, connections between ideas, varying degrees of emphasis or contrast, and the identities of the people who are speaking or writing the content. According to the findings of several studies, direct messages play an essential role in disseminating information and organizing conversations (Brinton; Aijmer). Interpersonally, DMs serve various purposes in the context of the news and interviews. These purposes include noting agreement, disagreement, or doubt; showing the speaker's attitude or posture; demonstrating courtesy or hesitance; controlling the discussion; and communicating the speaker's personality or style (Jiang). Direct messages are important to the process of developing a cohesive and consistent storyline because they are used so frequently in the media and everyday conversation.

Editorials occasionally make use of direct messages (DMs), but this is rare. In addition to demonstrating shifts in subject or direction, linking ideas, designating emphasis or contrast, and indicating source or attribution, editorials try to communicate the author's opinion or argument. Because of this, the function of DMs is not restricted to simply laying out a framework for the conversation; rather, they can also be utilized to communicate the author's point of view. In editorials, as in news and interviews, DMs serve interpersonal purposes such as marking agreement, disagreement, or uncertainty; demonstrating politeness or tentativeness; guiding the conversation; and communicating the personality or style of the writer (De Ferrante).

Blogs have the lowest frequency of direct communications compared to the other three categories of online communication. It is possible that this is because blogs are less official and more personal than news, interviews, and opinions, and as a result, they depend less on obvious indicators of consistency and harmony to ensure that the smooth flow of ideas is maintained. Despite this, DMs continue to serve a number of important purposes, including illuminating shifts in subject or emphasis, connecting ideas, offering context, and communicating the author's style and tone. Direct messages (DMs) in blogs serve

several interpersonal purposes, including signaling the blogger's attitude or posture, steering the discussion, showcasing the blogger's personality or writing style, and expressing politeness or hesitance. These are just a few interpersonal functions that direct messages serve.

Methodology

The researchers have chosen a combined methodologies approach, meaning they will employ quantitative and qualitative methods in their investigation. In quantitative research, descriptive statistics and statistical analysis demonstrate the prevalence and distribution of discourse indicators across genres. In qualitative research, discourse analysis is used to investigate and characterize the roles played by DMs across various genres.

The study's sample size comprises news articles, interviews, opinions, and blog posts. Written media consists of editorials from *The Washington Post*, while spoken media consists of conversations published on the newspaper's website. Written and spoken corpora samples consist of twenty articles and twenty conversations.

A mixed-methods approach was adopted to gain a more comprehensive understanding of how discourse markers are used across the four categories. Comparatively, qualitative research permits a deeper exploration of the roles performed by DMs across genres, whereas quantitative research provides an overview of the prevalence and distribution of DMs across genres. Incorporating written and spoken media data increases the study's representativeness and profundity.

The Washington Post was chosen as the primary source for the corpora because of its reputation as a reputable and widely-read newspaper in the United States. When analyzing discourse indicators across media types, using articles and interviews from the same news source helps ensure a level playing field.

We will analyze the prevalence and distribution of DMs across various disciplines using descriptive statistics and statistical analysis. Mean, mode, median, and range will be used to determine the incidence rate of diabetes. The DM frequencies in various categories will be compared using statistical methods like the chi-square test and analysis of variance.

The phenomenological analysis will be based on discourse analysis, which examines how DMs serve various purposes in various literary formats. Discourse indicators will be analyzed in terms of Brinton's (1996), Aijmer's (2002) and De Ferrante's (2021) categorization of their textual and interpersonal functions (Shirazi). In addition, the study will reveal the genre-specific patterns of shape and function of DMs.

Research Method	Quantitative and Qualitative
Sample Size	20 editorials, 20 interviews
Rational	Provides comprehensive understanding, diverse sample
Descriptive	Frequency and distribution
Statistical	Chi-square and ANOVA
Discourse analysis	Explore and describe functions fulfilled by DMs
Characteristics	Identifying patterns of forms and functions in each genre

Analysis

Both qualitative and quantitative approaches were used to analyze the data. Descriptive statistics were used for the quantitative analysis, which revealed the prevalence of discourse indicators in each category. Table 1 displays the findings of the numeric study.

Table 1

Frequency of Discourse Markers in Each Genre

DMs	News and Interviews	Editorials and Blogs
Textual DMs	152	123
Interpersonal DMs	68	89
Total DMs	220	212

Table 1 indicates that there are more written DMs in the News and Interviews category than in the Editorials and Bloggers genre. Editorials and Blogs, on the other hand, have more private Direct Messages than Headlines and Interviews.

Discourse analysis was used for the qualitative analysis to learn how discourse indicators work in various writing styles. Figure 2 displays the outcomes of the phenomenological study.

Table 2

Functions of Discourse Markers in Each Genre

<i>DMs</i>	<i>News and Interviews</i>	<i>Editorials and Blogs</i>
<i>Textual DMs</i>	Emphasizing, connecting, enumerating,	Emphasizing, connecting, contrasting,
	summarizing, exemplifying	summarizing, exemplifying
<i>Interpersonal DMs</i>	Attitude marking, questioning, agreement,	Attitude marking, hedging, opinion indication,
	disagreement, reformulation	opinion indication

According to Table 2, DMs in both categories serve comparative purposes, such as highlighting, connecting, summarizing, and illustrating the text. Contrasting, on the other hand, is a feature exclusive to the Editorials and Commentaries category. Both interpersonal DM types serve similar purposes, such as indicating mood, opinion, and agreement. Hedging and reformulating, on the other hand, are features unique to the Editorials and Bloggers' style of writing.

ANOVA

The results of ANOVA are presented in the following table:

<i>Source of Variation</i>	<i>Sum of Squares</i>	<i>Degrees of Freedom</i>	<i>Mean Square</i>	<i>F Value</i>	<i>P Value</i>
<i>Between Groups</i>	125.6	3	41.9	5.82	.003
<i>Within Groups</i>	356.4	36	9.9		
<i>Total</i>	482	39			

The variance analysis reveals that the use of discourse markers differs significantly between the four forms of media. Since $F(5.82)$ is greater than the significance level, we can conclude that there is a statistically significant difference between the mean scores of the two data sets. With a p -value of .003, it is conceivable to reject the null hypothesis (that there is no significant difference between group means) and adopt the alternative hypothesis (that there is a significant difference between the means of the groups).

Further research, such as post-hoc analyses, can be conducted to determine which specific sets of media categories differ significantly from one another in terms of the prevalence of discourse markers.

Discussion

This study examined voice cues in various media. The descriptive study found discourse markers in all four groups, but their prevalence and intent varied. The study of variance showed that discourse marker numbers and functions varied significantly between the four groups.

News stories, interviews, comments, and blogs all have more discourse signs than the latter. This supports prior results that news and conversations are more informal and two-way than views and blogs (De Ferrante). News and interviews may use discourse markers more to build rapport and engage viewers.

News and interviews used more discourse markers with interpersonal roles than opinions and blogs. Similarly, earlier studies have found that news and conversations are more engaging and intimate than opinions and blogs, which are more formal and impersonal (De Ferrante). News and interviews use discourse markers for interpersonal goals to engage the audience and look genuine.

This study shows that speech cues vary across media. News and discussions use interpersonal discourse cues more than views and blogs. This study has implications for media workers and teachers, who may need to tailor their words to their audiences. The study also emphasizes the importance of analyzing discourse cues in different media discourse categories. The study's small sample size and focus on one written, and one spoken form are key drawbacks. Additional categories and cross-cultural investigation into discourse indicators could be added to future studies. More research is needed to determine how different discourse indicators affect the involvement and understanding of media discourse among different demographics. This research adds to our knowledge of how discourse indicators are deployed across media forms and highlight the need to pay attention to genre-specific linguistic cues when analyzing media discourse.

Conclusion

In the last part of the research, the researchers looked at speech indicators in various forms of media, including interviews, comments, and blogs. According to the research findings, there are significant differences between the four genres in terms of the prevalence and function of discourse markers. Interpersonal speech markers were more prevalent in the news and conversations than in opinions and websites. Discourse markers were less prevalent in news and discussions compared to viewpoints and blogs.

The study combined qualitative and quantitative research methods in order to understand discourse markers in the four different types of media. While quantitative analysis disclosed the frequency of discourse markers and the roles they play, qualitative analysis uncovered the discourse markers that are most frequently used in each category.

This research sheds light on how discourse indicators are used across various media formats to achieve specific communicative functions. Media workers, language educators, and researchers interested in discourse analysis may benefit.

References

1. Aijmer, Karin. "English discourse particles." *English Discourse Particles 2002*: 1-315.
2. Brinton, Laurel J., and Elizabeth Closs Traugott. *Lexicalization and language change*. Cambridge University Press, 2005.
3. Di Ferrante, Laura. "Transitioning between small talk and work talk through discourse markers: Evidence from a workplace spoken corpus." (2021): 7-30.
4. Eggins, S., & Slade, D. (1997). *Analyzing casual conversation*. Cassell.
5. Faisal, Wafaa Mokhlos. "The Discourse Marker (Well) in Selected Talk Shows: A Discourse Analysis Study1."
6. Fraser, Bruce. "An approach to discourse markers." *Journal of pragmatics* 14.3 (1990): 383-398.
7. Halliday, Michael Alexander Kirkwood. "Learning how to mean." *Foundations of language development*. Academic Press, 1975. 239-265.
8. Jiang, Lianjiang, and Michelle Mingyue Gu. "Understanding youths' civic participation online: a digital multimodal composing perspective." *Learning, Media and Technology* 47.4 (2022): 537-556.
9. Jiang, Lianjiang, and Michelle Mingyue Gu. "Understanding youths' civic participation online: a digital multimodal composing perspective." *Learning, Media and Technology* 47.4 (2022): 537-556.
10. Lakoff, R. (1973). *The logic of politeness; or, minding your p's and q's*. Papers from the Ninth Regional Meeting, Chicago Linguistic Society, 292-305.
11. Nilsson, Bo, and Eric Carlsson. "Swedish politicians and new media: Democracy, identity and populism in a digital discourse." *New Media & Society* 16.4 (2014): 655-671.
12. Pedroni, Marco. "Two decades of fashion blogging and influencing: A critical overview." *Fashion Theory* (2022): 1-32.
13. Rhee, Seongha. "On determinants of discourse marker functions: Grammaticalization and discourse-analytic perspectives." *Linguistic Research* 37.2 (2020): 289-325.
14. Rone, Julia. "Far right alternative news media as 'indignation mobilization mechanisms': how the far right opposed the Global Compact for Migration." *Information, Communication & Society* 25.9 (2022): 1333-1350.
15. Schiffrin, Deborah. "Discourse markers: Language, meaning, and context." *The handbook of discourse analysis* (2005): 54-75.
16. Schiffrin, Deborah. *Discourse markers*. No. 5. Cambridge University Press, 1987.
17. Schourup, L. (1985). *Common discourse particles in English conversation*. Unpublished doctoral dissertation, University of California, Los Angeles.
18. Shirazi, Farid. "Social media and the social movements in the Middle East and North Africa: A critical discourse analysis." *Information Technology & People* (2013). Schourup, L. (1985). *Common discourse particles in English conversation*. Unpublished doctoral dissertation, University of California, Los Angeles.
19. Tagliamonte, Sali A. *Analysing sociolinguistic variation*. Cambridge University Press, 2006.
20. Uzunoğlu, Ebru, and Sema Misci Kip. "Brand communication through digital influencers: Leveraging blogger engagement." *International journal of information management* 34.5 (2014): 592-602.

THE FIRST FEMALE AUTHORS OF ENGLAND**Arzu Huseynli***Azerbaijan State Pedagogical University, Baki, Azerbaijan**Teacher of the Foreign Languages Centre*<https://orcid.org/0000-0002-4571-4678>**Abstract**

The article is dedicated to the study of the literary activity of English women writers and poets who lived in the 16th and 17th centuries. This period begins with the rise of the Tudor dynasty, and in the 17th century, the Stuart dynasty ruled the country. Peace, tranquility, justice and law which the people wanted for a long time, reigned in the country. In this period, the absence of long wars in the country created a foundation for the development of culture, science, and literature. The 16-17th centuries in the British history are known as a period of numerous changes which contributed to the future development of the country. This period is known as "the golden age" of British culture. Though the first bourgeoisie revolution and civil war occurred in the 17th century, but in general, the monarchy not only strengthened its authority, but also did its best for evolution of all spheres of science and culture. It was a period of Renaissance. William Shakespeare, Ben Jonson, John Milton, Elisabeth Cary, Emilia Lanier enriched the British and world literature. Isaac Newton's discoveries opened a new page in physics. The authority and power of the royal power increased, Renaissance culture developed in the country. [1] The monarchs paid much attention to education and science. The activities of the world-famous William Shakespeare and Isaac Newton coincide with this period. Literary researchers compare London in the first decades of the 17th century with Athens during the time of ancient Greek dramatists or Florence during the Medici period. Thus, the beginning of the 17th century is the flourishing period of English culture and, first of all, literature and theatre.

The author conducted extensive research and explored the works of the first women writers - Aphra Ben, Elizabeth Carey, Emilia Lanier, Margaret Cavendish and others, who lived and created in the Elizabethan era – in the period that gave history such famous poets and writers as William Shakespeare, Ben Jonson, Robert Green, Michael Drayton. The spirit of their poetry was very rich and colorful and the philosophical and political prose of women writers is also interesting.

Keywords: writers, poets, literature, translation, women, innovations, research, dedicate, works, poetic.

For many, it may be difficult to list the names of English women writers before Jane Austen. However, even in the time of Geoffrey Chaucer, women were engaged in literary creativity. However, it should be noted that only in the 17th century, the activity of women writers and poets began to be accepted as a normal thing in society. In the 1670s and 1680s, after the successful performance of Aphra Benin's plays on the London stage, women writers became full members of literary society. It can be noted that gender equality was established in literature in the 17th century. The collection "Women Writers of 17th Century England" includes the works of Aphra Ben, Elizabeth Carey, Margaret Cavendish, Anne Finch, Emilia Lanier, Catherine Phillips, Esther Souernem, Rachel Speth, Mary Roth and others. [2, 15]

Mary Sidney-Pembroke

Philip Sidney, who was one of the prominent representatives of English literature during the Renaissance, created many works during his short life. His sister Mary Sidney married Count Pembroke, moved to the Wilton mansion and organized literary-artistic gatherings there. Almost all writers of the time attended Wilton's meetings. It was known as the literary center of England. After Philip's tragic death, Mary Sidney-Pembroke edited and published her brother's works. In 1592-93, she translated a number of works from French into English: De Morne: "Thoughts on Life and Death", Garnier: "Mark Antony", Petrarch: "Triumph of Death". Mary Sidney-Pembroke also translated psalms from the Bible. She dedicated the translations to Queen Elizabeth I and her brother. [2; 13-15]

Elizabeth Cary

Elizabeth Cary, Viscountess of Falkland (1595-1639) was an English poet, playwright, translator and historian. Cary was the first woman to write an original play in English. Elizabeth Cary's first work is the French atlas "The Mirror of the World" by Avraam Ortel, which she translated in 1598, and she wrote her first play, "The Tragedy of Mariam", between 1602-1609 and published it in 1613. This work is the first original play written in English by a female author. In 1626 (27), Cary wrote "The Life, Reign, and Death of Edward II", a historical representation based on real events. The publication of the work was possible only in 1680, because the criticism of favoritism was given ample space in the work. Some researchers considered this work to be the first modern history written by a woman in English. Both of the works have survived to this day. A number of Elizabeth Cary's translations have been lost because they were not published. She also wrote poems about Saint Mary Magdalene, Saint Agnes and Isabella of Portugal. In the 20th century, literary critics and researchers of the history of feminism began to study the works of E. Cary. [4, 38]

Emilia Lanier

In this period, women writers were faced not only with social prohibitions, but also with problems such as the impossibility of going beyond the forms accepted in literature and bringing innovations to literature. However, despite these, women writers and poets managed to sign innovations in literature. Emilia Lanier, one of the writers of the 17th century, entered English literature as the founder of a new genre - "country" poetry. Emilia Lanier's work revealed the inequality of men's and women's rights in social, religious, political and economic fields. In 1611, Lanier wrote the book of poems "Salve Deus rex Judaeorum" ("I salute the King of the Jews, the Lord"). English historian and Shakespeare scholar Leslie Rose considers Emilia Lanier to be the second best poet of Shakespeare's era after Mary Cindy-Pembroke. The book begins with a dedication to the women from the highest levels of the kingdom - Queen Anne and Princess Elizabeth. The author dedicated poems to the countesses of Pembroke, Kent, Suffolk, Bedford, Dorset, Clifford and many other ladies who contributed to the development of culture. Emily Lanier dedicated her greatest poem, "The Author's Wish to Mary-Countess Pembroke" to Mary Sidney Pembroke.

For to this Lady now I will repaire,
Presenting her the fruits of idle houres:
Though many Books she writes that are more rare,
Yet there is honey in the meanest flowers...

Mary Sidney-Pembroke was a writer, poet and translator. However, she herself remained in the shadows, trying to gain recognition for the work of her brother Philip Sidney. The poet also expressed his sympathy for Philip Sidney:

...valiant Sidney, whose cleere light
Gives light to all that tread true path of Fame
Who in the globe of heav'n doth shine so bright:
That being dead, his fame doth him survive,
Still living in the hearts of worthy men...

The author also included a dedication to ordinary readers called "Virtuous reader".

In her poems, Emilia Lanier pointed out the unfairness of the situation of women in society and marked the beginning of the feminism movement. Lanier proves that Adam and Eve were to blame for their expulsion from Paradise. So, no one could force Adam, who was a strong person, to taste the forbidden fruit, and it is not right to put the blame on the delicate woman. [2, 20]

Yet Men will boast of knowledge, which he took
From Eve's fair hand, as from a learned booke.

Emilia Lanier is not satisfied with pointing out the humiliation and injustice towards women, she calls on women to gain their lost rights and men not to hinder them.

Then let us have our Libertie againe,
And challenge to your selves no sov'raigntie;
You came not in the world without our paine,
Make that a barre against your crueltie;
Your fault being greater, why should you disdain
Our beeing your equals, free from tyranny?

The uniqueness of Lanier's poetry is that she brought a new poetic form and genre to literature at a time when women did not have the right to write or publish.[4] Poems were written in the form of praise of virtuous women. At the same time, allegories were also used.

Conclusion. *Talented women poets and writers managed to end gender discrimination in literature in times of social restrictions and signed a number of innovations in writing literary works that go beyond traditional standards. The role of woman poets and writers of that time in the development of the English literature is undeniable.*

References

1. Alchin, Linda K., editor. *Elizabethan Age*. 2015, www.elizabethan-era.org.uk/elizabethan-age.htm. Accessed 5 Dec. 2016
2. Anastasiya Dengaza: "English Theatre in Shakespearean Epoch" *Scientific journal "IKSTATI"* Sankt-Petersburg [published in Russian]
3. encyclopedia.com: *English Scholars, Thinkers, Writers*
4. Stella Nangonová: "British History and Culture". Osrava-2008
5. "Women in Literature: Urgent problems of studying English female literature" Belarus State University: "International Digest of Scientific Articles" – Edition 3 [pages 13-25], [published in Russian]

EXPRESSIVE SYNTAX IN MODERN ENGLISH FICTION

Korableva Ekaterina Alekseevna

Tula State Lev Tolstoy Pedagogical University

Abstract

This paper is devoted to the study of the features of expressive syntactic means in modern English-language fiction on the example of Nick Hornby's novel "Just like You" (2020). Examples of various expressive syntactic means are given, the most frequent of them (parentheses, elliptical constructions, interrogative and exclamatory sentences, parcelled constructions, syntactic repetitions) are analyzed from the point of view of their diversity, effect and specificity of their use, the expressive potential of the punctuation chosen by the author is also indicated. The conclusion is made about the important contribution of the considered means to the creation of expressiveness of modern English fiction. The results of the study are the following: expressive syntactic devices are widely used in modern English fiction and play a very important role in it. They contribute to the creation of an emotional text, help the author to draw attention to certain information, imitate colloquial speech, convey the necessary mood to readers, set the pace of reading, show the reasoning of the characters. Parentheses are the most common expressive means in the analyzed material. They are used to clarify information, draw attention to some ideas, express someone's attitude to them. Parentheses may be related to different categories (category of reference, category of exemplification, category of deliberation). There are different types of them from the point of view of structure (one-word parentheses, parentheses – combinations of words, parentheses – sentences). Elliptical constructions are very important in making emotional speech. There are syntagmatically and paradigmatically replenished elliptical sentences in the research material. Different elements may be omitted (subjects, predicates, parts of predicates). Syntactic repetitions and parceling constructions are used to emphasize important points. Repetitions of homogeneous sentence parts and parallel constructions of different types are used in the text under discussion. Parcelled constructions differ in composition and syntactic construction. Interrogative and exclamation sentences are very important for creating an emotional literary text. Various traditional and non-standard punctuation marks also can be used to enhance expressiveness of the text. Different expressive syntactic means are often used together within the same sentence in the research material. It makes modern English fiction especially emotional.

Keywords: *expressiveness, syntax, modern fiction, the English language.*

INTRODUCTION

Expressive syntax plays an important role in the organization of a literary text. Characterization of people, description of their thoughts and emotions, imitation of colloquial speech in the work are impossible without using the linguistic potential of the means of expressiveness at the syntactic level. The study of expressive syntactic means is relevant, because their importance in English-language fiction is beyond doubt, but it seems interesting to study the features of their use by a modern author, which determines the scientific novelty of this study.

Let us consider expressive means at the level of syntax in modern English fiction on the example of Nick Hornby's novel "Just like You", 2020 [8].

MAIN PART

The analysis of the research material has shown that parenthesis is one of the most frequent means of expressive syntax in modern English fiction. Parentheses contribute to the expression of feelings and experiences of the characters, indicate their desires, assumptions, thoughts, emotional state, reactions to events, etc. Using the classification of O.V. Alexandrova [1, p. 30-34], in the analyzed work we distinguish parentheses related to the following categories:

- category of reference (Shall I not ask, then?),*
- category of exemplification (Obviously there were only two choices, but he'd presume that, say, Cassie's mother might vote differently from Cassie's father.),*
- category of deliberation (It was, after all, a future open to most able-bodied people in the world, whether they chose to exploit the opportunity or not.).*

From the point of view of structure, there are the following types:

- 1) *one-word parentheses (Anyway, I'll beat both of you.),*
- 2) *parentheses – combinations of words (She didn't want to go back into the butcher's – for the third time – until she'd calmed down.),*
- 3) *parentheses – sentences (She wasn't ready – and this time she was going to make some kind of effort – but she showed him around and introduced him to the boys, who were playing Xbox.).*

As can be seen from the examples given, parentheses differ in terms of the position taken in the sentence, as well as in punctuation used: it should be noted the predominance of commas and dashes as punctuation marks indicating the boundaries of parentheses, however, brackets are often found in the same function, for example: They were talking about famous people a decade older than Lucy (and his mother).

Ellipsis plays an important role in creating the expressiveness of a modern literary text. Elliptical sentences give the utterance the intonation of living speech, dynamism [2, p. 189], allow the author to express ideas briefly, focus on the most important information, make an emotional impact on the reader [5, p. 195]. Among the elliptical sentences in the research material, syntagmatically replenished ones are distinguished, in which the missing word is explicated from the surrounding context [4, p. 180] (What are you looking for? In a man?), as well as paradigmatically replenished ones, in which the explication of a word or words is possible only on the basis of other similar constructions [4, p. 180] (Your turn.). The missing elements may be the subject (Didn't like him.), the predicate (All of us.), part of the predicate (You sure?), the subject and the predicate (Out of England.), the subject and part of the predicate (Great.).

Interrogative sentences also belong to the expressive syntactic means that are important for a literary text. They help the author to imitate colloquial speech, involve the reader in the reasoning of the author or characters, make the content of the text close to the modern spoken language. There are various types of the interrogative sentences used in the text:

- *general questions (Is it too late?),*
- *special (pronominal) questions (Why don't you meet her somewhere?),*
- *tag questions (He works in the building trade, doesn't he?),*
- *alternative questions (In a café or somewhere?).*

Dialogical unities in the text under study also contain exclamation sentences in which the main content is accompanied by the expression of the speaker's feelings related to this content [3, p. 86]. In the research material, various types of exclamation sentences can be identified, in particular, imperative (Think what we could do with that!) and declarative (A hundred and sixty-one million a week, Joseph!); extended (And the other one is Alex Iwobi of Arsenal!) and unextended ones (Sixty-EIGHT!). It is impossible not to note their important role in creating an imitation of colloquial speech, pointing out the emotions of the characters and, undoubtedly, strengthening the expressive potential of the literary text.

Syntactic repetitions are also common means of expressive syntax in the research material. According to I. V. Arnold, repetitions convey significant additional information of emotionality, expressiveness and stylization and often serve as an important means of connection between sentences [2, p. 183]. In addition, repetitions imitate colloquial speech, help to focus the reader's attention on important information, set a certain pace and rhythm of reading. In the research material, repetitions of homogeneous sentence parts and parallel constructions were identified. Among the repetitions of homogeneous parts different types are distinguished, namely:

- *binomial (She hadn't made a witty or telling point.),*
- *trinomial (What did she know about recessions and the building trade and scaffolding?),*
- *polynomial (And everyone – kids, parents, uncles and aunts – saw football as a way out).*

In most cases the following members of sentences are repeated:

- *attributes (She would have to stop thinking about it immediately before her guesses took darker and more particular turns.),*
- *objects (But what happened to Reading, Bath, Bristol Temple Meads?),*
- *predicates (Or, worse, it got halfway up and then give up the ghost?).*

Parallel constructions can be complete (Marriage, yes. Parenting, no.) and incomplete (The coffee was out of a pot, and the bacon was crispy, and the jam was home-made by a colleague at Lucy's school.). The types of parallel constructions in the text under discussion include syntactic anaphora ('Because of their meat obsession?' 'Because of his knowledge of football and his skills on the Xbox.') and syntactic epiphora (The woman who looked at least like her? Most like her?).

Another important means of expressive syntax for the creation of a modern literary text is parcellation, i.e. the division of an utterance into two or more parts due to the communicative intention

of the speaker [6, p. 64]. From the point of view of composition and syntactic construction, various types of parcelled constructions were identified in the research material, in particular, those including full/elliptical basic elements (*The problem was, I didn't actually ask you a question. About Joseph. / Yeah. Sort of. I suppose. Christian.*), those including single-link/multi-link parcels [7, p.6] (*I'm babysitting. For Lucy. / England, probably. Like Brighton or wherever. Sussex. Dorset.*), as well as those containing parcels-attributes (*One's more, you know, political. Topical.*), parcels-parts of predicatives (*This is Paul, my ex. And Daisy.*), parcels-objects (*And write some words. And a tune.*), parcels-adverbials (*I mean, I'm sure I will want to keep them. Eventually.*). Parcelled constructions are used to give emotionality, conciseness, and colloquial character to statements.

Various punctuation marks play an important role in creating an expressive text. In the analyzed work, they are often used to clarify, explain and express the subjective attitude of the author or characters to certain events, words, actions. Punctuation enhances the expressive potential of some syntactic constructions and makes an important contribution to the creation of an emotional text.

In addition to the traditional punctuation marks involved in enhancing the expressiveness of the text, there are some non-standard punctuation marks in the research material, for example:

He laughed, to show a) that he got it, b) that he was friendly and c) that he absolutely wouldn't need a gun to his head.

Joseph wondered how Earl Sweatshirt and A\$AP Rocky and ?Love and all the others managed it.

The inside/outside relationship felt much more achievable than the words he needed to find, but the failure to find them was causing her alarm and embarrassment.

All the means of expressive syntax mentioned above are often used in combination with each other; this enhances the emotionality of the analyzed literary text.

CONCLUSION

Based on the analysis of the research material, it can be argued that various means of expressiveness at the syntactic level make the literary text emotionally saturated, help the author imitate spoken language, make the thoughts and reasoning of the characters as clear as possible for readers, if necessary, set a certain pace of reading. Thus, expressive syntactic means play an important role in the creation of a modern English literary text.

References

1. Alexandrova O.V. *Problems of Expressive Syntax: On the Material of the English Language*. - Moscow: URSS, 2009.
2. Arnold I.V. *Stylistics of the Modern English Language: (Stylistics of Decoding)*. Moscow: Prosveshchenie, 1990.
3. Akhmanova O.S. *Dictionary of Linguistic Terms*. - Moscow: Librocom, URSS, 2009.
4. Barkhudarov L.S. *Structure of a Simple Sentence of the Modern English Language*. - Moscow: URSS, 2008.
5. Galperin I.R. *Essays on the Stylistics of the English Language: the Experience of Systematization of Expressive Means*. - Moscow: URSS, LIBROCOM, 2011.
6. Filonova N.K. *Parcellation of Polypredicative Utterances in Modern English: dis. candidate of Philological sciences*. - Leningrad, 1982.
7. Khanutin M.A. *Linguistic Nature and Features of the Functioning of Parcel as a Stylistic Device (Based on the Material of English Fiction): Abstract of the dissertation of the Candidate of Philology*. - M., 1983.
8. Hornby N. *Just like you*. - Dublin: Penguin Random House, 2021.

Technical sciences

INFLUENCE OF THERMAL STRESS ON THE FORMATION OF CRACKS IN THE SILICATE COATING OF THE HEAT EXCHANGE TUBE

Ibragimov N. Yu.

Professor, "Material science" department,
Azerbaijan State Oil and Industry University

Abstract

Deal with the analysis and interpretation of the automatic adjustment of the technological mode of the device designed to apply the silicate coating to the inner surface of the pipes. These coatings are resistant to corrosion and increase the reliability and longevity of the pipe. The analysis of the method of elimination of defects on the surfaces of the coating in the technological process is described.

Keywords: *silicate coatings, thermal conductivity, corrosion, temperature, resistance, durability*

Introduction: *Despite the introduction of automatic adjustment and control system in the technology of obtaining silicate coatings, the emergence of defects, including macro-microcracks, has been observed. Since accuracy is not taken into account in the current management systems, a sudden violation of the technological process has resulted in formation of defects.*

In the automatic adjustment process, the laying of the coating on the surface of the pipes is completed by heating the pipe to a high temperature (600-800°C), entering the oven with a forward and simultaneous rotational motion. At this time, the formation of cracks on the surface of the coating and metal pipe as a result of stress and compression caused by thermal stresses and deformations has been investigated.

Since the automatic adjustment procedures have been carried out within a certain framework of investigations of Skvortsov, B.V., Prokurenko, Y.A., Cornik, V.A., some of the forming defects have been eliminated.

Objective: *Although macro-cracks on the surface of silicate coatings of pipes were removed, the micro-crack formation issues were not investigated.*

At present, the meteorological and technical characteristics of the newly developed and commissioned "Korona-12" and "Korona-C" electric sparkling defect scopes are considered more favourable to find out defects on the internal surfaces of the silicate coating pipes. However, the test voltage of defect scopes is able to detect defects with the coating thickness from 5 to 30 mm in the range of 10 kV. [1,2]

The "Korona-C" prototype has been proposed to be applied to a new electric sparkling defectoscope to find out the macro-/ micro-cracks of the silicate coatings inside the tubes.

Experimental Techniques: *deals with the minimization of macro- micro-cracks caused by the automation of technological process in silicate coated pipes and the adjustment of their technical parameters.*

It was also taken into account that the technological process, which is the basis of the causes of cracks and defects, was not carried out accurately and the employees did not comply with the technological regulations. With all this in mind, scratches on silicate coated pipes, star-shaped, wavy and groove cracks in the form of fish flakes, black dots, thin cracks with small holes, and etc. occur. Geometric dimensions of such crack layers depending on the brand and thickness of the silicate coating accept the micro cracks in the range of 0.3-3.0 mm and the macro cracks in the range of 3.0-5.0 mm, even the length of the cracks reaches up to 10 mm.[2,3]

Methods: *Thus, the pipe coating laying procedures consist of two stages. In the first stage, a device control system is built to draw a liquid silicon coating inside the pipe. Here, a certain thickness and smoothness of the coating is obtained by adjusting the flow rate of the liquid. The system operates in the following sequence.*

The silicon coated pipes are dried at 20-30°C for some period and delivered to the furnace assembly to be heated at high temperature to obtain a full smooth coating.

The silicon coated pipes entered the oven are treated as double cylinders. As the temperature in the oven is stable at 1000°C, it is accepted that the heat is evenly distributed along the surface of the pipes, since upon heating the temperature changes only in the radial direction of the pipe.

Conclusions

1. The causes of macro- micro-cracks upon the process of laying silicate coating inside the pipe have been studied. A comparative explanation of the methods of determination of defects and macro-micro-cracks on the coating surfaces via use of various defectoscopes is given. The methods of diagnostics of macro-micro cracks caused by temperature increase and decrease during heating and cooling of the coating obtained at high temperature in the furnace have been studied.

2. Mathematical model of the temperature field has been drawn in the cooling process of the heated pipe coating up to high temperature. The automatic control of the cooling mode of the pipe with silicate coating is shown via diagrams

References

1. Hacıyev Y.M., İbrahimova E.N. High-voltage spark testing of inner surface of silicate coating covers of pipe // First International Scientific-Practical Conference: Modern Information, Measurement and Control Systems: Problems and Perspectives, 1-2 July 2019, p.256-257.

2. Gureev V. M. Improving the efficiency of shell- and-tube heat exchangers using hole and half-ring re- cesses. Energetika Tatarstana [Energy of Tatarstan], 2014, no.3-4, pp.61-64. (in Russian)

3. Kretinin A.V., Kulikova E.E., Bulygin K.D. Opti-mization of the design of the heat exchanger by methods of computational hydromechanics. Vestnik VGTU [Vo- ronezh State Technical University Bulletin], 2015, no.5, pp.89-95. (in Russian)

4. Savel'ev N. I., Lukin P. M. Raschet i proektirovanie kozhukhotrubchatykh teploobmennykh apparatov [Calcula- tion and design of shell-and-tube heat exchangers] Che-boksary, Izd-vo Chuvash.un- ta, 2010. 292 p.



<https://sconferences.com>
info@sconferences.com

ISBN

