

**THE FORMATION OF ENGLISH AND UZBEK SCIENTIFIC DISCOURSE: A
LINGUO-COGNITIVE COMPARATIVE ANALYSIS****Baxtigul Ubaydullayeva**PhD student of Andijan State Institute of Foreign Languages
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Annotatsiya: Ushbu maqola ingliz va o'zbek ilmiy diskursining tarixiy rivojlanishini solishtirma nuqtai nazardan tahlil qiladi. Ish tilning asosiy lingvistik, uslubiy va pragmatik xususiyatlarini, shuningdek, tarixiy, madaniy va institutsional omillar ta'sirini o'rganadi. Tahlil shuni ko'rsatadiki, ingliz ilmiy diskursi global standartga aylangan bo'lib, obyektivlik, ixchamlik va tuzilmaning uyg'unligi bilan ajralib turadi, o'zbek ilmiy diskursi esa tarjima amaliyotlari va ijtimoiy-madaniy sharoitlar bilan shakllangan milliy an'analarga asoslanadi. Natijalar ikki diskurs turining o'xshashlik va farqlarini, shuningdek, ilmiy bilimlarni tushunish va yetkazishda tilning rolini yoritadi.

Kalit so'zlar: ilmiy diskurs, ingliz tili, o'zbek tili, solishtirma tahlil, pragmatika

Аннотация: Данная работа рассматривает историческое формирование и развитие английского и узбекского научного дискурса с сравнительной точки зрения. Исследование выделяет основные лингвистические, стилистические и прагматические особенности обоих языков, учитывая влияние исторических, культурных и институциональных факторов. Анализ показывает, что английский научный дискурс развился в глобальную стандартизированную модель, характеризующуюся объективностью, краткостью и структурной единообразием, тогда как узбекский научный дискурс отражает национально ориентированные традиции, сформированные практикой перевода и социокультурными условиями. Результаты способствуют лучшему пониманию сходств и различий между двумя типами дискурса и роли языка в концептуализации и передаче научного знания.

Ключевые слова: научный дискурс, английский язык, узбекский язык, сравнительный анализ, прагматика

Abstract: This paper examines the historical development of English and Uzbek scientific discourse from a comparative perspective. It highlights the main linguistic, stylistic, and pragmatic features of each language, considering the influence of historical, cultural, and institutional factors. The analysis shows that English scientific discourse has evolved into a global, standardised model marked by objectivity, conciseness, and structural uniformity, while Uzbek scientific discourse reflects a nationally oriented tradition shaped by translation practices and sociocultural conditions. The study enhances understanding of the similarities and differences between the two discourse types and the role of language in shaping and communicating scientific knowledge.

Keywords: scientific discourse; English scientific discourse; Uzbek scientific discourse; comparative analysis; academic communication; scientific style

In contemporary linguistics, scientific discourse has become an important object of interdisciplinary research, as it reflects not only linguistic structure but also the development of scientific thinking, academic traditions, and sociocultural contexts. Scientific discourse

functions as a primary medium through which knowledge is produced, organised, and transmitted within the academic community. Therefore, the study of its historical formation and linguistic characteristics is essential for understanding how scientific knowledge is conceptualised and communicated in different languages.

English scientific discourse occupies a dominant position in modern global academic communication. Its formation is closely connected with the scientific revolution of the seventeenth century, the rise of empirical methodology, and the institutionalisation of science through organisations such as the Royal Society. Over time, English scientific discourse developed a set of stable linguistic and stylistic conventions, including objectivity, terminological precision, logical coherence, and standardised structural patterns. These features later became the basis for international academic norms, particularly in scientific writing and publication.

In contrast, Uzbek scientific discourse developed under different historical and cultural conditions. Its formation began mainly in the early twentieth century, influenced by national enlightenment movements, translation practices, and later by the academic traditions of the Soviet period. As a result, Uzbek scientific discourse demonstrates distinctive linguistic and stylistic characteristics, such as complex syntactic structures, explicit authorial presence, and formulaic expressions. These features reflect both national modes of scholarly thinking and the historical role of intermediary languages in academic communication.

Despite the growing integration of Uzbek scholars into the international academic space, significant differences between English and Uzbek scientific discourse remain evident. These differences are manifested at the linguistic, stylistic, and pragmatic levels, influencing how scientific arguments are constructed and presented. A comparative analysis of English and Uzbek scientific discourse, therefore, allows for a deeper understanding of the interaction between language, scientific thought, and cultural tradition.

The present study focuses on examining the historical development of English and Uzbek scientific discourse from a comparative linguistic perspective. It aims to identify the major similarities and differences between the two traditions by analysing how scientific writing practices have evolved in each language. Through this analysis, the research contributes to the broader discussion of academic communication and highlights the role of language in structuring and transmitting scientific knowledge.

To achieve this aim, the study employs a comparative and descriptive research approach based on qualitative analysis of academic texts representing various historical stages of scientific development in both English and Uzbek. The corpus includes classical and modern scientific works, scholarly articles, and academic publications, which are examined in order to reveal recurring linguistic, stylistic, and pragmatic features. The methodology combines historical analysis, used to trace the formation of scientific discourse, with comparative analysis that allows for the identification of similarities and differences between English and Uzbek academic writing traditions. Particular attention is given to syntactic structures, terminological usage, and patterns of authorial presence, enabling an assessment of how historical and sociocultural factors shape the organisation and presentation of scientific knowledge in both languages.

The formation of English scientific discourse is closely connected with the intellectual and cultural transformations that took place in Europe during the sixteenth and seventeenth centuries. This period marked a shift from scholastic and dogmatic forms of knowledge toward empirical observation and systematic experimentation. As a result, scientific communication gradually acquired new linguistic and stylistic features aimed at clarity, accuracy, and logical reasoning.

A key stage in this process was the development of empirical methodology, which emphasised observation, experimentation, and evidence-based conclusions. Scientific texts increasingly focused on presenting facts and results rather than rhetorical ornamentation or philosophical speculation. This tendency contributed to the emergence of objectivity as a central principle of English scientific discourse. The language of science began to prioritise precision, unambiguous terminology, and logically structured argumentation.

The institutionalisation of science also played a crucial role in shaping English scientific discourse. The establishment of scientific societies and the emergence of academic journals created stable platforms for the exchange of scientific knowledge. These institutions promoted common norms of scientific writing, encouraging authors to adopt a clear and neutral style that could be easily understood by the scholarly community. Gradually, English replaced Latin as the primary language of scientific communication, which further supported the development of a distinct English scientific discourse.

During the eighteenth and nineteenth centuries, English scientific discourse continued to evolve alongside major scientific discoveries. The growth of disciplines such as physics, biology, and chemistry led to the expansion of scientific terminology and the increasing complexity of academic texts. At the same time, logical coherence and systematic organisation became defining features of scientific writing. Scientific arguments were expected to follow a clear progression from hypothesis to evidence and conclusion, reinforcing the rational character of academic communication.

By the twentieth century, English scientific discourse had acquired a relatively standardised form. The rise of international scientific journals and shared structural conventions strengthened its global influence. As a result, English scientific discourse came to function not only as a national academic tradition but also as a universal model for the presentation and dissemination of scientific knowledge.

The formation of Uzbek scientific discourse took place under specific historical and sociocultural conditions and developed later in comparison with English scientific discourse. Its emergence is closely linked to the stabilisation of the Uzbek literary language in the early twentieth century and the growing need to express scientific knowledge in the national language. At this initial stage, scientific writing in Uzbek was largely influenced by educational and enlightenment movements that aimed to modernise society and promote access to scientific knowledge.

An important phase in the development of Uzbek scientific discourse was associated with translation practices. Scientific concepts and terminological systems were introduced into Uzbek primarily through translations from Arabic, Persian, and later Russian sources. This process contributed to the enrichment of scientific vocabulary but also influenced the structural

and stylistic features of academic texts. As a result, early Uzbek scientific discourse combined national linguistic elements with patterns borrowed from other scholarly traditions.

During the Soviet period, Uzbek scientific discourse underwent significant expansion and institutionalisation. Scientific research was largely conducted within the framework of Soviet academic standards, which led to the widespread adoption of Russian academic writing conventions. Uzbek scientific texts of this period are characterised by complex syntactic constructions, extended compound sentences, and the frequent use of formulaic expressions. Authorial presence was often explicit, with scholars actively guiding the reader through arguments and interpretations.

Following independence, Uzbek scientific discourse entered a new stage of development marked by increasing attention to national linguistic identity and gradual integration into international academic communication. Efforts were made to systematise scientific terminology in Uzbek and to adapt academic writing practices to global standards. At the same time, traditional features of Uzbek scientific discourse, such as detailed explanation and explicit argumentation, continued to play an important role. The development of Uzbek scientific discourse reflects a dynamic interaction between national linguistic traditions and external academic influences. This interaction has shaped a distinctive model of scientific communication that continues to evolve in response to both local and global scholarly demands.

A comparative analysis of English and Uzbek scientific discourse reveals both shared academic principles and significant differences shaped by historical, cultural, and institutional factors. Despite their distinct paths of development, both discourse traditions aim to ensure clarity, logical reasoning, and systematic presentation of scientific knowledge. However, the linguistic realisation of these aims differs considerably in each language.

At the linguistic level, English scientific discourse is characterised by syntactic economy and structural transparency. Shorter sentences, a preference for passive constructions, and carefully controlled terminology contribute to an impersonal and objective tone. Such features allow the focus to remain on processes, results, and empirical evidence rather than on the author. In contrast, Uzbek scientific discourse often employs longer and more complex syntactic structures. Compound and complex sentences are used to elaborate ideas in detail, while active constructions are more frequent, reflecting a stronger authorial presence within the text.

From a stylistic perspective, English scientific writing favours conciseness and uniformity. Standardised formats and predictable rhetorical patterns guide readers through the text with minimal interpretative effort. Uzbek scientific discourse, on the other hand, demonstrates a tendency toward explanatory richness. Scientific arguments are often supported by extended reasoning and repeated clarification, which enhances comprehensibility but may result in greater textual density. This stylistic difference reflects contrasting academic traditions and reader expectations.

Pragmatically, the two discourse types differ in their modes of interaction with the audience. English scientific discourse typically maintains a neutral and distant stance, minimising personal involvement and subjective evaluation. Statements are frequently framed in a cautious and impersonal manner, allowing claims to appear universally valid. Uzbek scientific discourse, by contrast, permits a more direct engagement with the reader. Authors

often guide interpretation through explicit evaluative markers and metadiscursive expressions, which create a sense of dialogue within the academic text.

At the structural level, English scientific discourse is strongly influenced by international standards that regulate the organisation of academic texts. These conventions contribute to the global accessibility and comparability of scientific research. Uzbek scientific discourse is increasingly adapting to these standards, yet it continues to preserve features rooted in national academic practice. This coexistence of traditional and modern elements illustrates the ongoing transformation of Uzbek scientific writing.

In summary, the comparative analysis demonstrates that English scientific discourse represents a highly standardised and globally oriented model of academic communication, while Uzbek scientific discourse embodies a hybrid form shaped by national linguistic traditions and external influences. Understanding these differences is essential for effective cross-cultural academic communication and for the successful integration of national scholarly practices into the international scientific community.

Conclusion

The comparative analysis of English and Uzbek scientific discourse highlights both convergence and divergence in academic communication across the two languages. While both traditions share the overarching goals of clarity, logical reasoning, and systematic presentation of knowledge, they achieve these aims through distinct linguistic, stylistic, pragmatic, and structural strategies. English scientific discourse emphasises conciseness, objectivity, and adherence to international conventions, ensuring global accessibility and standardisation. In contrast, Uzbek scientific discourse reflects a balance between traditional national practices and modern international norms, favouring explanatory richness, syntactic complexity, and a more engaged interaction with the reader. Recognising these differences is crucial for scholars, translators, and students navigating cross-cultural scientific communication, as it fosters both effective knowledge dissemination and meaningful integration of Uzbek academic practices into the broader global scientific community.

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