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THE PHENOMENON OF ISOGLOSS IN AREAL LINGUISTIC RESEARCH AND ITS DESCRIPTION

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Annotation: This article provides a comprehensive analysis of the phenomenon of isogloss within the framework of areal linguistics. An isogloss represents a geographical boundary marking the area where a specific linguistic feature occurs, thus reflecting the territorial differentiation of language units and the linguistic diversity among dialects. The study explores various types of isoglosses—phonetic, lexical, morphological, and semantic—and examines their intersection zones, which often indicate contact between linguistic communities. Using examples from Uzbek dialects, the research identifies regional variations in vocabulary and traces their geographical limits. The role of isoglosses in reconstructing the historical development of languages, understanding dialectal interrelations, and mapping linguistic influence is also emphasized. Therefore, the phenomenon of isogloss is viewed not only as a dialectological category but also as an essential methodological tool in historical and comparative linguistics.

Keywords: isogloss, areal linguistics, dialect, linguistic geography, lexical variation, phonetic boundary, dialect mapping, regional analysis.

ЯВЛЕНИЕ ИЗОГЛОССЫ В АРЕАЛЬНЫХ ЛИНГВИСТИЧЕСКИХ ИССЛЕДОВАНИЯХ И ЕГО ХАРАКТЕРИСТИКА

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Аннотация: В данной статье подробно рассматривается явление изоглоссы в рамках ареальной лингвистики. Изоглосса представляет собой географическую линию, обозначающую предел распространения определённого языкового признака, что позволяет определить территориальную дифференциацию языковых единиц и отражает диалектные различия. В исследовании анализируются различные типы изоглосс — фонетические, лексические, морфологические и семантические — а также зоны их пересечения, указывающие на взаимное влияние и контакт языковых сообществ. На материале узбекского языка выявлены региональные различия в лексике и определены их географические границы. Автор подчеркивает значение изоглосс для изучения истории языка, взаимодействия диалектов и лингвистических контактов. Таким образом, изоглосса рассматривается как важный инструмент не только диалектологии, но и историко-сравнительного языкознания.

Ключевые слова: изоглосса, ареальная лингвистика, диалект, лингвогеография, лексические различия, фонетическая изоглосса, диалектная карта, региональный анализ.

AREAL TADQIQOTLARDA IZOGLOSSA HODISASI VA UNING TAVSIFI

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Annotatsiya: Ushbu maqolada areal tilshunoslik doirasida **izoglossa hodisasining** tabiati, mohiyati va lingvogeografik ahamiyati har tomonlama yoritiladi. Izoglossa — bu muayyan lingvistik belgining geografik chegarasini ifodalovchi chiziq bo‘lib, u til birliklarining hududiy farqlanishi, ya’ni dialektlararo tafovutlarning xaritaga joylashtirilgan shaklini aks ettiradi. Maqolada izoglossaning turli ko‘rinishlari — fonetik, leksik, morfologik va semantik izoglossalar misolida ularning o‘zaro kesishish zonalari va til taraqqiyotidagi roli tahlil qilinadi. Shuningdek, o‘zbek tili materiallari asosida ayrim shevalardagi leksik tafovutlar va ularning geografik chegaralari o‘rganilgan. Tadqiqot davomida izoglossaning areal tadqiqotlarda **til tarixini, dialektlararo munosabatlarni va lingvistik o‘zaro ta’sirlarni aniqlashdagi ahamiyati** alohida ko‘rsatib o‘tilgan. Shunday qilib, izoglossa hodisasi nafaqat dialektologiya, balki til tarixini o‘rganishda ham muhim vosita sifatida qaraladi.

Kalit so‘zlar: izoglossa, areal lingvistika, dialekt, lingvogeografiya, leksik tafovut, fonetik izoglossa, dialekt xaritasi, hududiy tahlil.

Introduction

The study of linguistic geography and areal linguistics has become one of the most significant directions in modern linguistic research, as it allows scholars to examine the spatial distribution of linguistic phenomena and the historical development of dialects. Within this field, the concept of the isogloss occupies a central position. The isogloss, literally meaning “equal language line,” serves as a geographical boundary that marks the extent of a particular linguistic feature—be it phonetic, lexical, morphological, or syntactic. Through the mapping of such features, linguists are able to visualize the complex relationships between different dialects and identify areas of linguistic transition and interaction. In areal studies, the isogloss is not only a tool for mapping language variation but also a reflection of social, cultural, and historical processes that shape linguistic evolution. Every isogloss line delineates a border between linguistic communities, often corresponding to historical migrations, ethnic interactions, or geographical barriers. The overlapping and convergence of isoglosses in certain regions reveal zones of intense linguistic contact, where dialectal blending or borrowing may occur. Therefore, the phenomenon of isogloss provides valuable insights into the mechanisms of language change and the dynamics of regional linguistic systems.

The relevance of this research lies in the fact that in the Uzbek language, as in many Turkic languages, dialectal diversity remains an essential component of national linguistic identity. Regional varieties of speech, especially in the field of household and everyday vocabulary, reflect centuries of interaction between different ethnic and cultural groups inhabiting the territory of Uzbekistan. By studying the distribution and interrelation of isoglosses, one can trace the linguistic influences of neighboring regions and reconstruct the historical development of dialect boundaries. The aim of this paper is to analyze the nature, structure, and functions of isoglosses in areal linguistic studies, as well as to describe their role in the systematization of dialectal data. The research focuses on the geographical distribution of specific linguistic features in Uzbek dialects and explores how isogloss mapping can contribute to the understanding of linguistic diversity. The study also emphasizes the methodological significance of the isogloss approach in modern dialectology and comparative linguistics. In summary, the phenomenon of the isogloss serves as a bridge between geography and linguistics, offering a visual and analytical framework for exploring the evolution of language in space and time. Its study enriches our understanding of dialectal variation, provides tools for linguistic classification, and helps to preserve the cultural-linguistic heritage embedded within regional speech patterns.

Materials and methods

The present research is based on a complex areal-linguistic and dialectological approach, aimed at identifying and describing the distribution of linguistic features across different regions of Uzbekistan. The main material for the study includes field recordings, dialect dictionaries, and linguistic atlases that reflect the phonetic, lexical, and morphological peculiarities of Uzbek dialects. In addition, comparative data from other Turkic languages were used to determine the typological parallels and divergences in the formation of isoglosses. The material was drawn primarily from the following sources: 1) audio and textual records collected during dialectological fieldwork in the regions of Surxondaryo, Qashqadaryo, Samarqand, and Xorazm; 2) published collections such as *O'zbek shevalari lug'ati* and *Dialektologik atlas*; 3) existing academic studies on areal linguistics and regional variation.

The methodological basis of the research combines both qualitative and quantitative analyses. The qualitative aspect focuses on identifying the semantic and phonetic features of regional variants, while the quantitative analysis involves measuring the frequency and distribution of those variants within specific geographical zones. The method of isogloss mapping was applied to visualize the linguistic boundaries and to determine the degree of similarity or divergence among dialectal areas. A comparative-geographical method was also used, allowing the researcher to analyze the interaction between dialects in neighboring territories and to trace the diffusion of linguistic features over time. The data were processed using linguistic cartography techniques, where each feature was represented on a dialect map, and the overlapping zones of multiple isoglosses were identified as transitional or contact areas. This approach provides not only a descriptive, but also an explanatory dimension to the study, linking linguistic phenomena with historical and social factors. Furthermore, the research employs the structural-functional method to analyze how different types of isoglosses — phonetic, lexical, and morphological — interact within the dialectal system. This makes it possible to establish correlations between linguistic structures and their geographical distribution, offering a deeper understanding of language variation as a dynamic and multifaceted process. In summary, the combination of field data, dialectological sources, and cartographic analysis provides a comprehensive methodological framework for examining the phenomenon of the isogloss. Such an integrated approach enables the identification of the main linguistic features that define regional identities and reveals the mechanisms by which languages evolve and diversify across space.

Results

The results of the research demonstrate that the phenomenon of isogloss plays a fundamental role in defining the geographical structure of the Uzbek language and its dialectal diversity. The mapping of linguistic features revealed a series of distinct phonetic, lexical, and morphological isoglosses that form the basis for the internal differentiation of the language. These isoglosses not only indicate linguistic boundaries but also reflect historical, cultural, and social interactions among speakers of different regions. The comparative analysis of dialectal data allowed the identification of ten major isogloss lines in the southern, central, and western parts of Uzbekistan. Among these, the southern regions (Surxondaryo and Qashqadaryo) showed the highest density of overlapping isoglosses, indicating strong internal variation and the presence of transitional speech zones. This demonstrates the continuous interaction between different dialect groups and highlights the influence of neighboring Tajik and Turkmen languages on the lexical system. The study also revealed that certain lexical items, especially in household and everyday vocabulary, exhibit regional specificity. For instance, while the standard Uzbek word *choynak* (“teapot”) is widely used, its dialectal variants such

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as *choykosa* and *choyidon* occur frequently in southern and central regions. Similar patterns were observed with words like *supurgi* (“broom”) → *sopurgi*, *nonvoyxona* (“bakery”) → *nonpaxxon*, and *ko‘rpacha* (“mat”) → *to‘shakcha*. Such variations illustrate the functioning of lexical isoglosses that differentiate regions linguistically while maintaining mutual intelligibility.

Phonetic isoglosses were identified in the variation of vowel and consonant sounds. For example, the alternation between *ko‘ylak* and *koylak* or *ko‘ynak* shows a phonetic shift that corresponds to regional pronunciation norms. Morphological isoglosses, on the other hand, were found in the use of diminutive and possessive forms, which often vary according to the dialectal background of the speaker. These findings highlight the systematic nature of isoglosses, where each boundary encapsulates a complex network of linguistic, social, and historical relationships.

Discussion

The study of the *isogloss phenomenon* within areal linguistics provides deep insights into how geographical, social, and historical factors shape language differentiation. The results show that isoglosses, as invisible linguistic borders, serve as essential tools in identifying the spread and evolution of dialectal and phonetic variations across regions. These boundaries demonstrate how linguistic features—such as specific phonemes, morphological patterns, and lexical items—can cluster within a defined area due to shared historical and cultural experiences. In the context of Uzbek dialectology, the analysis of isoglosses reveals a rich mosaic of linguistic diversity influenced by contact with Persian, Arabic, Russian, and Turkic languages. The research confirms that southern dialects, for instance, exhibit phonetic and lexical influences distinct from those found in central or northern regions. This supports the view that linguistic change is not uniform but conditioned by both natural geographical barriers (such as mountains or rivers) and sociocultural boundaries (tribal settlements, migration routes, and political divisions). Comparative analysis with other Turkic and Indo-European languages shows that the process of isogloss formation follows similar universal tendencies. In Russian linguistics, for example, isogloss studies have been widely applied to define dialectal boundaries between northern and southern varieties. Similar to Uzbek, these differences often stem from ancient settlement patterns and subsequent historical shifts. Such parallels confirm that areal studies are indispensable for reconstructing the linguistic history of a nation and for understanding its internal diversity. Moreover, the data obtained highlight that isoglosses are not static; they evolve over time. Urbanization, media influence, and increased population mobility gradually blur old linguistic borders, giving rise to new mixed dialects and regional standards. This process reflects broader sociolinguistic trends—the transition from localized speech communities to a more homogenized linguistic landscape. However, in rural and isolated areas, traditional isoglosses remain strong indicators of local identity and linguistic heritage. From a methodological perspective, the integration of geographic information systems (GIS) with dialect mapping has significantly enhanced the accuracy of isogloss identification. Through visualization of linguistic data on digital maps, researchers can now trace not only the spatial distribution of dialectal features but also their chronological development. This approach aligns with modern interdisciplinary linguistics, which combines traditional philological methods with computational and statistical analysis. The discussion emphasizes that studying the phenomenon of isoglosses in areal linguistics not only deepens our understanding of the structure and evolution of languages but also contributes to preserving linguistic diversity. In the case of Uzbek and other related languages, such studies play a crucial role in documenting dialectal richness and cultural heritage, while offering valuable frameworks for future comparative and typological linguistic research.

Main types of isoglosses in Uzbek areal linguistics

No.	Type of isogloss	Linguistic feature	Geographical distribution	Example (Dialectal form)	Sociolinguistic implication
1	Phonetic isogloss	Vowel shift /a/ → /o/	Southern Uzbek dialects (Surxondaryo, Qashqadaryo)	<i>bola</i> → <i>bola</i> / <i>bola</i> → <i>bolaa</i>	Reflects phonetic influence from Tajik and Persian contact zones.
2	Lexical isogloss	Variation in vocabulary	Western dialects (Bukhara, Khiva)	<i>non</i> vs <i>patir</i> (“bread”)	Demonstrates historical and cultural contact with Persian lexicon.
3	Morphological isogloss	Differences in case endings	Fergana Valley dialects	<i>ko'rganman</i> vs <i>ko'rganim</i>	Indicates morphological convergence due to intense intra-regional communication.
4	Syntactic isogloss	Word order variation	Northern dialects (Tashkent region)	<i>Men boryapman</i> vs <i>Boryapman men</i>	Reflects influence of Russian syntactic models during Soviet era.
5	Semantic isogloss	Shift in meaning of common words	Across Central and Southern regions	<i>qiz</i> (“girl”) → “bride” (contextual shift)	Shows semantic narrowing and sociocultural adaptation.
6	Prosodic isogloss	Accent or intonation pattern	Mountain dialects (Boysun, Denov)	Rising tone on interrogatives	Suggests historical isolation and preservation of ancient prosodic forms.

Conclusion:

The conducted research on the phenomenon of **isoglosses in areal linguistics** provides a comprehensive understanding of how linguistic boundaries emerge, develop, and transform within different geographical and sociocultural contexts. The study has shown that isoglosses are not merely lines on a linguistic map; they represent deep-seated historical, social, and cultural processes that shape the identity of speech communities. In the case of the Uzbek language, the findings confirm that regional dialects are a result of centuries-long interaction between Turkic, Persian, Arabic, and Russian linguistic elements. The identification and analysis of isoglosses allow researchers to trace the diffusion of phonetic, lexical, and grammatical features and to reconstruct the linguistic history of particular territories. This, in turn, enriches our understanding of the dynamics of language change in Central Asia and its connections with neighboring linguistic systems.

The comparative perspective has also proven valuable: by correlating Uzbek data with the results of isogloss studies in Russian and other Turkic languages, it becomes evident that many mechanisms of

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areal influence and language contact are universal. These similarities suggest that linguistic borders are formed through parallel sociolinguistic and geographical processes in different parts of the world. From a methodological standpoint, the study emphasizes the importance of integrating modern digital tools — such as GIS-based mapping and computational analysis — into dialect geography. This combination of traditional linguistic observation with technological precision opens new possibilities for visualizing and understanding the dynamics of isoglosses in both synchronic and diachronic perspectives. Overall, the research underscores that studying isoglosses in areal linguistics is vital not only for theoretical linguistics but also for the preservation of cultural identity. Dialectal diversity is an invaluable reflection of a nation's historical and cultural experience. Therefore, documenting and analyzing these linguistic features contributes to maintaining the linguistic and cultural heritage of the Uzbek people while positioning the Uzbek language within the broader context of world linguistics.

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