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MULTIMODALITY: A NEW PARADIGM IN CONTEMPORARY LINGUISTICS

Scientific advisor:
G'aniyeva Xayriniso Baxtiyarovna
Jizzakh State Pedagogical University
"English Language" Department
Independent researcher:
Abdug'aniyeva Mohibonu
Tel: +998 93 168 69 24

mamasolivevamohibonu@gmail.com

Abstract: This article examines multimodality as an emerging paradigm in contemporary linguistics, tracing its evolution from structural semiotics to modern AI-integrated research. The study explores how the integration of verbal, visual, audial, and kinesthetic modalities creates meaning that exceeds the sum of individual components through synergistic interaction. Drawing on systemic-functional linguistics, social semiotics, cognitive theory, and pragmatic approaches, the article demonstrates that communication has always been inherently multimodal, though scholarly attention to this phenomenon has intensified only in recent decades. The research analyzes key theoretical frameworks including Kress and Van Leeuwen's visual grammar, Halliday's metafunctions, and modal density theory, while examining the historical development of multimodal discourse studies from the 1960s to the present digital era. Special attention is given to the impact of digital technologies, social media, and artificial intelligence on multimodal communication practices. The article concludes by identifying promising research directions, including accessibility, multilingual contexts, ecological activism discourse, and specific applications for Uzbek linguistics. This comprehensive overview positions multimodality as an interdisciplinary field at the intersection of linguistics, semiotics, psychology, sociology, design, and computer sciences, with significant implications for education, professional communication, and intercultural understanding.

Keywords: multimodality, semiotic resources, visual grammar, systemic-functional linguistics, social semiotics, modal orchestration, digital discourse, nonverbal communication, affordance, cognitive linguistics

Introduction. Since the beginning of the 21st century, linguistics has been revealing new aspects of human communication. Today, linguists focus not only on verbal communication but on all forms of interaction. The processes of globalization, technological advancement, and intensified intercultural communication have created a need to study communication processes in a broader context.

While traditional linguistics primarily focused on the structural and functional characteristics of language systems, contemporary communicative research fully acknowledges the multimodal nature of human communication. As Kress and Van Leeuwen emphasize, communication has actually always been multimodal, but we have only begun to pay full attention to this in the present era.

The rapid development of digital technologies, widespread adoption of social media, and the dominant role of multimedia content in our lives have further increased the importance of multimodal research. In contemporary discourse, text, images, sound, video, and interactive elements work together to create meaning, requiring a reconsideration of classical linguistic approaches.



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Formation of the Concept of Multimodality

Although the term multimodality began to be widely used in the late 1990s, its roots trace back to much earlier research. Roman Jakobson, in defining the six functions of verbal communication in 1960, had already emphasized the interconnection of language with other semiotic systems. Roland Barthes, in 1977, studying "image and text" relationships, established the foundation of a semiotic approach and distinguished the "anchorage" and "relay" functions of images.

Systemic-functional linguistics developed by Michael Halliday became an important theoretical basis for multimodal theory. Halliday's concept of metafunctions—ideational, interpersonal, and textual functions—was subsequently successfully applied to visual and other modalities and forms the foundation of today's multimodal analysis.

Contemporary Interpretations of Multimodality

Contemporary researchers define multimodality from various perspectives. Carey Jewitt defines multimodality as an approach based on the principle that all semiotic resources used in meaning-making have equal significance. This definition rejects the dominance of language and recognizes the equal rights of all modalities.

Gunther Kress considers multimodality in an even broader context, interpreting it as a process of using multiple modalities in creating and conveying meaning. He particularly emphasizes the integrative nature of modalities and presents their interaction as a fundamental principle.

John Bateman defines multimodality as meaning-making through the joint functioning of various semiotic codes and systems. This definition specifically highlights the interaction and complementarity of modalities.

Systemic-Functional Multimodal Analysis

Systemic-functional multimodal analysis developed by Kress and Van Leeuwen is built on Halliday's systemic-functional linguistics. This approach operates with the principle of metafunctions, meaning each modality performs three basic functions: representing the world, creating social relationships, and organizing content. Kress and Van Leeuwen proved that images also have a grammatical structure and developed the concept of visual grammar. Visual grammar includes narrative and conceptual structures, degrees of modality, and design principles. Design principles study the placement of elements, methods of attracting attention, and the separation or integration of elements.

Social-Semiotic Approach. Theo van Leeuwen emphasizes the role of semiotic resources in social contexts. This approach studies the cultural-historical development of modalities, the use of modalities by social institutions, the multimodal expression of power and ideology, and the social distribution and application of semiotic resources.

Cognitive Multimodal Theory. Charles Forceville and other cognitive linguists study multimodality from the perspective of mental processes. They investigate how conceptual metaphors manifest in different modalities, blending theory and multimodal meaning-making processes, cross-modal mapping, and mental space and multimodal integration.

Pragmatic Approach. Sigrid Norris developed modal density theory. This theory assesses the intensity level of each modality in communication, tracks modal configurations and their changes, distinguishes high and low density modalities, and analyzes the real-time interaction of modalities.

Verbal Semiotic Resources. Spoken language includes phonetic features, lexical choice and style, grammatical structures, and discourse markers. Written language encompasses typography, orthography and punctuation, text layout, and letter register. Each element plays a unique role in communication and contributes to meaning-making.



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Visual Semiotic Resources. Visual modality consists of photography and realistic images, illustration and abstract images, diagrams and tables, and infographics. Design elements such as color and color schemes, shape and lines, texture and patterns, white space and composition are of great importance.

Audial Semiotic Resources. Audial modality includes paralinguistic elements: intonation and melody, pitch and volume, tempo and rhythm, pause and silence. Additionally, background music, sound effects, ambient sounds, and acoustic features play important roles.

Kinesthetic and Tactile Semiotic Resources. Body language includes gestures, facial expressions, eye contact, head and body movements, and posture. Proxemics studies issues of personal distance, spatial positioning, and territory. Haptics encompasses types of touch, pressure and duration, and norms of physical contact.

Integration of Modalities. Martinec and Salway distinguished five types of relationships between text and image: repetition, complementation, extension, elaboration, and contradiction. In repetition, one modality repeats the other; in complementation, modalities complement each other; in extension, one modality adds new information; in elaboration, one modality explains the other; and in contradiction, modalities give opposing meanings.

Historical Development of Multimodal Discourse Research

Initial Stage (1960-1980). During this period, structuralism and semiotics developed. Roland Barthes created the foundations of visual semiotics, and Umberto Eco developed semiotic theory. Research on nonverbal communication was also actively conducted: Ray Birdwhistell created kinesics, Edward Hall introduced the concept of proxemics, and Paul Ekman and Wallace Friesen studied universal facial expression codes.

Formation Stage (1980-1990). Halliday and Hasan developed issues of cohesion and context. Michael O'Toole applied systemic-functional linguistics to visual arts. Robert Hodge and Gunther Kress created the foundations of social semiotics. During this period, multimodality began to be recognized as an independent research field.

Consolidation Stage (1996-2010). Kress and Van Leeuwen created the foundations of visual grammar in their book "Reading Images." Their book "Multimodal Discourse" presented a complete methodology for multimodal analysis. Carey Jewitt provided an encyclopedic description of the field through "The Routledge Handbook of Multimodal Analysis." During this period, advertising discourse, educational materials, media discourse, and interactive interfaces were widely studied.

Digital Era (2010-Present). New technologies and platforms brought multimodal research to a new stage. Digital ethnography, social media discourse, emoji and sticker semiotics, video game multimodality, and virtual and augmented reality began to be studied. Eye-tracking research, corpus approaches, automated analysis, and machine learning emerged as methodological innovations.

Contemporary Trends (2020s). The connection between artificial intelligence and multimodality is strengthening. Research is actively conducted on multimodal data processing, image-to-text and vice versa, generative AI models such as DALL-E and Midjourney, and ChatGPT and multimodal interfaces. The COVID-19 pandemic affected online education multimodality, virtual meeting etiquette, and digital work environments. Accessibility and inclusive design, multilingual multimodal discourse, and ecological and social activism discourse have emerged as new research focuses.



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Theoretical Generalization. Research shows that multimodality is not simply adding modalities but their synergistic integration. The meaning created is greater than the sum of individual modalities, and their interaction produces a new quality.

The concept of "affordance" introduced by Gibson occupies a central place in multimodal theory. Each modality has its own specific capabilities and constraints: verbal modality provides abstract concepts and precision, visual modality expresses spatial relationships and emotion, audial modality creates temporal dynamics and atmosphere, and kinesthetic modality conveys attitude and feeling.

Kress introduced the metaphor of "modal orchestration" and emphasized that modalities in multimodal discourse should harmonize like musical instruments. This process includes stages of modal choice, modal arrangement, modal density, and modal timing. Kress and Van Leeuwen emphasize that semiotic resources are always formed in a cultural-historical context. The meaning of modalities depends on culture, social groups have different modal preferences, technology changes the repertoire of modalities, and modal norms evolve over time.

Conclusion and Prospects. In contemporary linguistics, the multimodal approach is recognized as a distinct research paradigm. This signifies a shift from monomodal analysis toward complex, multi-channel communication analysis. Systemic-functional, social-semiotic, cognitive, and pragmatic approaches have created a solid theoretical foundation for multimodal research and complement each other. Four main modalities - verbal, visual, audial, and kinesthetic - can be studied systematically and structurally. Multimodal research has come a long way from structuralism and nonverbal communication research in the 1960s to current AI-based research in the digital era. Multimodality is an interdisciplinary field located at the intersection of linguistics, semiotics, psychology, sociology, design, and computer sciences. It has practical significance in education through multimodal design of learning materials, in professional communication through presentation and public speaking skills, and in intercultural communication through understanding nonverbal codes.

In the future, AI and multimodality, Global South contexts, accessibility, ecological issues, and methodological innovations will be important research directions. For Uzbek linguistics, promising directions include multimodal analysis of speech acts in Uzbek, nonverbal communication norms in Uzbek culture, multimodal design of Uzbek language textbooks, and studying multimodal features of Uzbek discourse on social media.

