From Semiotics to Three-Dimensional Multimodality

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Abstract: Semiotics traces its roots to Ferdinand de Saussure's classical book *Course de Linguistique Generale* in which it is defined as the study of signs, signifiers and the signified in order to relate with meaning. It is the study of "life of signs within society". Later researchers applied semiotics as an interdisciplinary field. This article examines application of semiotics to study communication and linguistics based on exploration of semiotic and linguistic theories: Critical Discourse Analysis (CDA) and Multimodal Discourse Analysis. Most accounts of visual semiotics have concentrated on lexis; denotative and connotative, iconographical, and iconological signification of people, places and things depicted in images. However, multimodal discourse analysis in semiotics recognizes the relation between the signifier and the signified, and aspects of meaning including audio and visual elements. Multimodality provides the means to describe a practice or representation in all its semiotic complexity and richness. In multimedia, language is "displaced" by other modes of signification like sound and image and representation of meaning is shifting from language to alternative semiotics: image, colour, page layout, and document design for the realization of procedural meaning. Semiotics thus pervades all fields of language and communication and this forms the subject of this article.
Keywords: Discourse, Meaning, Multimodality, Semiotics, Signs.

INTRODUCTION

This article attempts an exploration of the origins of semiotics and how the semiotics theory has evolved over time to encompass multi-disciplinary approaches to the study of linguistics and other related disciplines. Semiotics encompasses three broad areas of study namely: visual semiotics, pictorial semiotics, and the semiotics of art. Its objects of study, that is a sign, an object and a meaning, are common to all disciplines of research. This article explains the development of semiotics through the major linguistics theories that study meaning from mono-modes to multimodal discourse analysis and three-dimensional extrapolations of meaning-making endeavours in linguistics studies.

SEMIOTICS AND DISCOURSE ANALYSIS

The idea of language involving all systems of communication is associated with the modern study of language as proposed by De Saussure (1922) in his book *Cours de Linguistique Generale* (*A Course in General Linguistics* translated in 1960, Hague: Mouton). Saussure believed that all the ways in which human beings communicate, such as through flags, smoke signals, religious ceremonies and clothes among others, could be looked at and analyzed as if they were languages. Saussure called this method of studying all language signs as "semiotics". Semiotics is a field likely to cross every field of knowledge insofar as its objects of study, sign and meaning, are common to all disciplines. It therefore, naturally confronts other areas of research. Saussure maintained that one of the chief tasks of linguistics was to define itself and second, that the objects of study in language, unlike other sciences, are not given in advance. For linguistics, it is the definition of language espoused by a theory that actually creates the object of study. In media studies, the term "language" often refers to more than just verbal language. Studying language may involve looking at every aspect of communication, not just those using words. Language in media studies may, for example, include images (Price & Nicholas, 1998). For linguistics, it is the definition of language espoused by a theory that actually creates the object of study (De Saussure, 1992). Semiotics explains how words, pictures and images coalesce into the statements of content in discourses.

Semiotics and linguistics share certain fundamental elements: the notion of forms related to meanings (linguistic sign in language and any other sign in semiotics), that function as part of code systems (language, gestures, art, music, cinema) which are used to communicate information. Saussure (*ibid.*) focused on the sign as the theoretical and methodological unit of linguistics and semiotics analysis. Semiotics and linguistics are connected and can actually function together provided that linguists adhere to the original Saussurean proposition to adopt the *sign* as the primary shared unit of both linguistics and semiotics analysis.

The sign is presented as the most crucial link connecting linguistics and semiotics as part of a larger structural paradigm. The above notion of the sign is the core of Systemic Functional Linguistics in which language is seen to represent and construct our perception of reality in the form of "goings-on" or processes of various types (for example doing, being, happening) which incorporate different categories of participants (for example, actors, goals, receivers, sensors, attributes).

Using the Systemic Functional Linguistics Model, Kress & Van Leeuwen (1996) posit the existence of two main categories of processes of which the participants represented in those images come to take part, that is narrative and transactional processes. We can therefore use the linguistic sign as the unit of analysis of the discourses in any chosen linguistic domain. For example, we can analyze how the linguistic sign is used to create imagery and overall message in audio-visual discourses. The linguistic sign in this case may include verbal and visual properties of discourses in audio-visual media.

The key notion in any semiotics is the sign; forms such as colour, salience, perspective and line, as well as the ways in which these forms are used to realize meanings. Thus we refer to the interplay between the signifier and the signified in creating the discourses in audio-visual media such as television advertisements. According to Umberto (1990), signs take the form of words, images, gestures, sounds and objects. Deeper analyses in this field can attempt an interpretation of symbols and explain their meanings as seen in audio-visual media discourses. Multimodality explains the complexity of human communication by studying multiple modes (signs) like spoken language, gaze, gestures, layout and music. Kress & Van Leeuwen (1996) suggest that a study of discourses should deal with them as whole units. One may not break down discourses into their individual components. It is necessary to identify, explain and justify the existence of each sign and determine its role in the construction of the narrative and transactional relations. One may go ahead and explain how readers interpret each mode and how the modes blend with each other to create whole discourses. For example, in television advertisements, we can examine how the verbal and visual modes of signification are used by copywriters to create meanings that appeal to viewers in a multimedia world.

Critical Language Awareness is another theory of linguistics study that is closely related to semiotics and is generally used in applied linguistics. Critical Language Awareness, according to Van Dijk (1989) is or should be concerned with aspects of representing social practices, as forms of life, as things people say about social practices; with discourse as the instrument of power and control as well as with discourse as the instrument of social construction of reality. On the other hand, Fairclough (1989) sets out the social theories underpinning language awareness as the analytical framework for investigating language into power and ideology development. Language awareness is useful in disclosing the discursive nature of much contemporary social and cultural change. The language of the mass media is scrutinized as a site of power, of struggle and also as a site where language is apparently transparent (Van Dijk, 1993). Power relations exist between the producer and consumer; between the advertiser and the viewer and between the advertisement discourses and the viewer. Van Dijk (1993) specifically considers production, uses and functions of mass media discourses. In critical analyses of various discourses that encode prejudice, van Dijk is interested in developing a theoretical model that explains cognitive discourse processing mechanisms.

Recognition of the contribution of all aspects of the communicative context to text meaning, as well as the growing awareness in media studies of the importance of non-verbal aspects of text has turned attention to semiotics devices rather than to purely linguistic devices (Wodak & Myer, 2001). The semiotics devices here include verbal and visual modes of signification. Audio-visual discourses is one area in which we can observe the interdisciplinary nature of semiotics. Television advertisements comprise dynamic and static images accompanied by words, both verbal and written. Language comes first, authoritatively imposing meaning on the image turning it into a typical instance of complete unit of discourse. Language bestows similarity and order on the diverse, heterogeneous world of images. Kress & Van Leeuwen (1996) aver that pictures are also structured, but they are not usually interpreted as such, that awareness of the structuredness of images of this kind is, in our society, suppressed and not part of "common sense". This is where semiotics enters the picture. Arising from studies of Kress & Van Leuween (1996) is the Multimodal Discourse Analysis in which we can identify and highlight those interpretations that are not "common sense" through a detailed and thorough critical discourse analysis. Multimodality entails examination of each mode of signification such as participants, colour and lighting; and an exploration of how the modes of signification are used to craft the discourses.

Kress & Van Leeuwen (1996) point out that the grammar of visual design enables human beings to build a mental picture of reality, to make sense of their experience of what goes on around them and inside them. Functional grammar plays a vital role in the production of meaning. Functional grammar goes beyond the formal rules of correctness. It is a means of representing patterns of experience. It enables human beings to build a mental picture of reality, to make sense of their experience of what goes on around them and inside them. The same is true of the grammar of visual design. The meanings which can be realized in

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language and in visual communication overlap in part, that is, some things can be expressed both visually and verbally; and in part they diverge, that is to say that some things can be "said" visually, others only verbally. But even when something can be "said" both verbally and visually, the way in which it will be said will be different. For instance, what is expressed in language through the choice between word classes and semantic structures is, in visual communication, expressed through the choice between, for instance, different shades of colour, or different compositional structures.

The visual grammars of audio-visual discourses are presented in the form of patterns of experience. According to Foucault (1972), discourses are practices that systematically form the objects with which they deal. Stubbs (1983) relates the term discourse to language and defines it as any form of language above the sentence level. This fits in with audio-visual discourses in which language is treated as "all the modes of communication" that go into creating the message. Brown & Yule (1983) define discourse as any form of language in use while Alcaraz & Martinez (1997) define it as any form of oral language. We can hereby posit that visual grammar describes both the linguistic and non-linguistic forms of communication that are evident in any forms of multimedia.

The narrative representation of advertisements entails the transactional relation between participants in the advertisements, which is realized by the vectors that link them, that is, the oblique lines formed by glances or outstretched arms (Kress & Van Leeuwen, 1996). The locative relation is realized by overlapping, by the gradients of focus, by colour saturation, and so on, which create the contrast between foreground and background. And the instrumental relation is realized by gesture for example holding, grasping, beckoning, etc. The important point here is the observation that the semiotic code of language and the semiotic code of pictures each have their own quite particular means of realizing what in the end are perhaps quite similar semantic realizations (Kress & Van Leeuwen, 1996).

Linking Semiotics to Modern Theories of Discourse Analysis
Multimodality extends beyond the analysis of words in discourses. It entails a content analysis and equally investigates the verbal and visual modes of signification such as phrases and sentences, slogans and claims as well as the participants, face-work, gestures, colour and lightings in audio visual discourses. Social semiotics is concerned with the way people use semiotics resources both to produce communicative discourses and events and to interpret them in the context of specific social situations and practices (Kress, 1985). The multimodal social semiotic approach draws upon Halliday's (1978) systemic functional theory to provide frameworks for conceptualizing the complex array of semiotic resources which are used to create meaning (for example, language, visual imagery, gesture, sound, music, three dimensional objects and architecture) and detailed practices for analyzing the meaning arising from the integrated use of those resources in communicative artifacts, discourses and events.

The notion of semiotic resource in multimodal social semiotics is critical. Kress (1985) explains that it originated in the work of Halliday (1978) who argued that the grammar of a language is not a code, not a set of rules for producing correct sentences, but a resource for making meanings. Halliday (*ibid.*) identifies four types of meaning potential, which he calls the metafunctions of language:

- Experiential meaning for constructing experience.
- Logical meaning for establishing logical relations.
- Interpersonal meaning for enacting social relations.
- Textual meaning for organizing the message.

Halliday's (1978) Systemic Functional theory provides a description of the metafunctional-based phonological, grammatical and discourse systems which are used for the analysis of linguistic texts and events. In addition, Halliday (1994) posited that Systemic Functional theory is the origin of Multimodal Discourse Analysis, that is, a theory of linguistic analysis in which discourse is analyzed at a level including and beyond language-in-use.

Recognition of the contribution of all aspects of the communicative context to text meaning, as well as the growing awareness in media studies generally of the importance of non-verbal aspects of texts has turned attention to semiotic devices in discourse other than to purely linguistic devices (Wodak & Meyer, 2001). The semiotic devices analyzed in audio-visual discourses include verbal aspects such as point of view, the advertisement promise, advertisement claim and slogans, and visual aspects such as imagery, gesture, gaze, face work, circumstances, salience, vectors, participants and advertisement power.

Semiotics and Related Theories of Discourse Analysis
From the desktop research findings, the application of semiotics and other theories of discourse analysis is clearly and critically shown in the studies of numerous selected linguistic intelligentsia namely: Fairclough (1992), Van Dijk (1993), Kress & Van Leeuwen (1996), O'Toole (2010), Iedema (2003), Ombongi (2003), Muchira (2004), Marube (2006), Ochieng (2009), Oketch (2010), Kodak (2010), Yakub (2010); & O'Halloran (2011) among others.

Fairclough (1992) examines texts using Critical Discourse Analysis. He analyzes how particular

texts and forms of the texts are associated with particular social practices and how they reproduce social identities and relations. Fairclough (*ibid.*) identifies three aspects of the constructive effects on discourse: firstly, discourse contributes through the construction of what are variously referred to as "social identities" and "subject positions" for social subjects and types of self (ideational metafunction). Secondly, discourse helps construct social relationships between people (interpersonal metafunction). Thirdly, discourse contributes to the construction of systems of knowledge and belief (textual metafunction). In addition, Fairclough (*ibid.*) explains that understanding of how these three aspects of construction are achieved can be accomplished through the analysis of both the micro features of "texts" and "discourse practices" such as presupposition, cohesion, key words, metaphors, grammar, discourse representation and intertextuality, and the macro features of social practice.

According to Van Dijk (1993), the essential link between the micro and the macro, between symbolic practice and material practice, and between the individual and the group, is what he calls "social cognition"; systems of models which reflect socially shared representations of societal arrangements, groups and relations, as well as mental operations such as interpretation and thinking, and evaluative social representations including opinions, attitudes, ideologies, norms and values. This higher level of linguistic analysis is what Kress & Van Leeuwen (1996) called Multimodal Discourse Analysis. The term multimodality, as used here, is a technical one aiming to highlight the meaning-making work we do at all time to exploit various semiotics.

Kress & Van Leeuwen (1996); & O'Toole (2010) provide the foundations for multimodal research drawing upon Halliday's (1978) social semiotic approach to language to model the meaning potential of words, sounds and images as sets of inter-related systems and structures. O'Toole (2010); & O'Halloran (2011) apply Halliday's (*ibid.*) systemic functional model to a semiotic analysis of displayed art, paintings, sculpture and architecture. Halliday's concern with text and context, instance and potential, is reflected in his foundational works. Kress and van Leeuwen (*ibid.*) adopt a contextual approach with a particular orientation to ideology, deriving from general principles of visual design which are illustrated via text analysis; while O'Toole (*ibid.*) develops a grammatical approach by working closely with specific "texts" (that is paintings, architectural designs and sculptures) to derive frameworks which can be applied to other works. Subsequent researches have built upon these two approaches and extended them into new domains. For example, contextual approaches have been developed for speech, sound and music (Kress & Van Leeuwen, 1999).

Iedema (2003) also used Multimodal Discourse Analysis to analyze the Apple ™ Macintosh commercial for the 1984 Olympics. He posits that in multimedia, we are faced with sound and image taking over tasks associated with the role of language, thus language is being "displaced". He also posits that the representation of meaning in multimedia is shifting away from using language towards using and privileging alternative semiotics, like image, but also colour, page layout (from portrait to landscape), and document design (from book-shape manual towards manual as fold-out brochure) for the realization of procedural meaning. Modern studies go beyond the modes identified by Iedema (*ibid.*) to examine other cueing effects such as face-work, gesture, movement, posture and lighting.

On the other hand, Ombongi (2003) used Halliday's (*ibid.*) Systemic Functional Grammar to show how advertising language realizes its persuasive intentions through the interpersonal function of style. He found that advertisements in newspapers rely heavily on the interpersonal metafunctions to appeal to readers and that readers relate easily with advertisements that address them directly through the use of third person narrator.

In her study on the portrayal of the feminine gender in Kenyan magazines, Muchira (2004) applied Systemic Functional Grammar to concentrate on textual function of style in advertising. She used Systemic Functional Grammar to analyze stylistic devices in advertisements in Kenyan magazines and found that advertising creates a unique register for magazine readers. Muchira concluded that advertising register of Kenyan magazines is identifiable as a register with its own unique style. Her study concentrated on meaning-making processes as crafted in the advertisement discourses.

Marube (2006) also used Critical Discourse Analysis to study linguistic and semiotic features of advertisements of cosmetics in the "*Parents"* and "*Eve*" magazines in Kenya. He revealed the empirical shortcomings associated with CDA and concluded that readers offer resistance to advertisements in the print media. Marube found that advertisements in magazines rely heavily on the use of conventional symbols and imagery. He also noted that advertisements do not necessarily lead readers into buying the advertised products. Readers often misinterpret advertisements and this leads to resistance rather than blind acceptance of advertisement messages.

Ochieng (2009) used Systemic Functional Linguistics to analyze gender roles and identities in Kenyan television advertisements. He noted that stereotypical gender roles still exist in television advertisements. Women are generally presented as domestic providers and care-givers whereas men depict

masculine, and aggressive status. He found that traditional gender roles still define the portrayal of men and women in television advertisements and he concludes that lexical and visual semiotic features that depict naturalized gender roles and stereotypes are likely to promote gender inequalities.

Oketch (2010) applied Multimodal Discourse Analysis to study language use and modes of communication in community development projects in Nyanza Province, Kenya. He examined how modes of communication are used to construct the reality of development and to express the interpersonal relations in the field of community development. Oketch (*ibid.*) also examined semiotic meanings and links between images and graphics used in multimodal texts. Text in this case is defined as any passage, written or spoken, of any length, that form a unified whole … a text is a unit of language in use … a text is best regarded as a semantic unit (Halliday & Hassan, 1976). Oketch (*ibid.*) identified phonic, graphic and multimodal modes of communication and posits that the lexico-grammatical constituents of texts, for instance, the clause is important since it expresses a semantic unit which applies to both the written and spoken language and represents a happening or state of affairs.

Kodak (2010) used Fairclough's (1992) Critical Language Awareness theory to analyze reader responses to advertisements of HIV/AIDS in Kenyan newspapers. Readers are generally aware of the existence of HIV/AIDS and the advertisements serve to reinforce the general knowledge. Kodak (*ibid.*) examined the power relations that obtain between advertisers and readers and found that language awareness deals with issues of power, ideology and discourses in its examination of the construction of the social identities for readers of advertisements, and further posited that discourse and society shape each other.

Yakub (2010) applied Multimodal Discourse Analysis to examine how language co-occurs with other semiotic forms in the *Safaricom* advertisements in Kenyan newspapers. He postulated that consumer advertisements employ more than one mode of communication in designing messages that target their audiences and this often causes interpretational difficulties to the target audiences. Yakub (*ibid.*) examined how the visual texts in *Safaricom* newspaper advertisements impact on audience's purchasing decisions, analyzed how visual semiotics and written language were used in the *Safaricom* advertisements to aid meaning interpretation and determined the impact of using the visual images and written language on the audience's ability to interpret the messages. Visual semiotics in *Safaricom* advertisements included colour, layout and language. *Safaricom* advertisements use a mixture of English and Kiswahili to reach the general Kenyan population

O'Halloran (2011) used Systemic Functional Approach to present frameworks used in analyzing how meaning is generated within a series of case studies. Her findings include a comprehensive survey of ways in which enhanced meaning emerges through the interaction of more than one mode of communication. For example, she notes that verbal and visual modes of signification work in complementarity to enhance meanings generated in electronic media. She concluded that Multimodal Discourse Analysis is useful to researchers interested in the application of systemic functional linguistics to media studies, discourse analysis and cognitive linguistics. Systemic Functional–Multimodal Discourse Analysis is applied in the construction of ideational meaning using language and visual imagery. In another study, O'Halloran (*ibid.*) used Multimodal Discourse Analysis to study the semiotic construction of a package label, multisemiotic mediation in hypertext, the construction of ideational meaning in print advertisements as well as the visual semiosis of film. She noted that multimodal texts and discourses are generated through the interaction of two or more semiotic modes of communication, for example, language, dynamic and static visual images in electronic media, film and print. Her studies in the above fields also include the study of transition and phase, camera and body movement, typography, layout and the use of colour and how such choices orientate the viewer to particular readings of texts and content.

CONCLUSIONS

The study demonstrates that modern linguistics discourse analysis theories have their roots in semiotics. In later developments, the sign, as identified by Saussure (1922) as the linguistics unit of any analysis, has undergone semantic transformations. In this regard, definitions of the linguistic sign have undergone transformations to include all components of discourse as seen in the written, print, audio and visual components of communication. Thus analysis of any form of discourse calls for the application of more than just one theory of discourse analysis. Multimodal discourse analysis postulates that any analysis of discourse should be in three dimensions: analysis of text; discursive practices entailing the production, consumption and interpretation of texts; and also the social practices in which the text is embedded. All of these should be used to analyze any discourse as a whole unit.

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