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Abstract

A central component of media literacy should be an understanding of the representational conventions through which the users of media create and share meanings. This paper analyzes the representational conventions of visual communication. It distinguishes between semantic and syntactic conventions and focuses on those characteristics that most sharply differentiate visual language from other modes of communication. It examines the impact of visual literacy on viewers' cognitive growth and on their development as informed consumers of visual media.

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Visual Aspects of Media Literacy

by Paul Messaris

A central component of media literacy should be an understanding of the representational conventions through which the users of media create and share meanings. This paper analyzes the representational conventions of visual communication. It distinguishes between semantic and syntactic conventions and focuses on those characteristics that most sharply differentiate visual language from other modes of communication. It examines the impact of visual literacy on viewers' cognitive growth and on their development as informed consumers of visual media.

In a nutshell, media literacy can be defined as knowledge about how the mass media function in society. Ideally, this knowledge should encompass all aspects of the workings of the media: their economic foundations, organizational structures, psychological effects, social consequences, and, above all, their "language," that is, the representational conventions and rhetorical strategies of ads, TV programs, movies, and other forms of mass media content. It is this last item, media language, that I focus on here. In particular, I would like to examine the visual aspects of that language, not because of any belief in the inherent superiority of image over speech or music or written text, but because—as film critic Bela Balazs (1952) forecast when the movies were still a new medium—it it is to the development of visual language and literacy that the explosive growth of 20th-century media has made its most distinctive contribution.

 Why should we be concerned about this new language and literacy? Among those of us with a professional interest in these matters, the way one answers this question will depend to a large extent on the degree of optimism or pessimism with which one views the social impact of the visual media. Optimistically, it can be argued that, by acquiring visual literacy, people enrich their repertoires of cognitive skills and gain access to powerful new tools of creative thought. More pessimistically, it can be argued that visual literacy is useful primarily for purposes of self-defense, as a knowledge base for resisting or counteracting the baneful influence of mendacious ads, sensationalistic movies, and the like. Of course, these two possibilities are not mutually exclusive, and both will be dealt with in this essay.

 What are the distinctive characteristics of the visual language of the mass media? In what ways does this new form of communication, as Balazs (1952) saw it, differ from verbal language or from any of the other modes of human communication? In addressing these questions, a useful first step is to make a distinction between the semantic and syntactic properties of languages. The former have to do with the relationships between the elements of a language and their meanings. The latter have to do with the relationships among the elements themselves. In both respects, visual language differs considerably from verbal language. Verbal language is characterized by arbitrary, purely conventional relationships between individual elements (sounds or words) and their meanings, and it has a highly explicit and relatively inflexible syntax (i.e., set of rules governing the ordering of sounds, words, and phrases). Neither of these points is true of visual language. Images certainly obey semantic conventions, but those conventions are rarely, if ever, entirely arbitrary, and, as visual theorists have repeatedly pointed out, the syntactic rules of visual language (i.e., the conventions of editing or montage) are so fluid and open to change that at times it can appear as if there are in fact no such rules at all (Monaco, 1981; Worth, 1982). However, these are both negative characterizations, telling us what visual language is not. What are its positive aspects?

The Role of Analogical Thinking in Visual Literacy

Verbal language is sometimes referred to as being "digital." This use of the term is not very precise, but the opposite label, "analogical," provides an apt encapsulation of the semantic features that most distinctly characterize visual language. The most obvious sense in which visual images can be called analogical forms of communication is illustrated by any clear, full-color photograph of a recognizable object. Here there is a more or less close analogy between the shapes, colors, and overall structure of the image, on the one hand, and the corresponding features of the real world, on the other.[1]

 However, the analogical quality of visual images is by no means confined to such examples, that is, to representational realism. Consider the case of a recent TV commercial from Microsoft's campaign for its Windows 95 operating system. The aim of this particular commercial was to advertise the system's capacity for multitasking. However, instead of showing an actual example of a person using a computer, or even just the computer screen in action by itself, the commercial uses a much more abstract visual representation, based on the well-known Windows

logo of four colored squares. The commercial begins with the announcer describing the various tasks that the system is capable of performing. As each task is mentioned, one of the squares goes into a little routine: blinking on and off, twirling around, and so on. Then the announcer talks about multitasking, and suddenly all four squares perform their routines at the same time. In an instant, the essence of multitasking has been conveyed to the viewer.

As this commercial demonstrates, analogical representation need not involve any obvious visual similarity between the image and what the image is about. The simultaneous action of the four squares in the TV image conjures up the basic meaning of multitasking even though what is happening in the commercial bears only the most tenuous visual relationship to the way in which the process of multitasking would be represented on an actual computer screen. In other words, the analogy between the TV image and its meaning is largely conceptual. It has been argued, most notably in a masterful series of books by Rudolf Arnheim (1954, 1969, 1988), that this type of analogical thinking, involving abstract conceptual relationships between visual forms and real-world phenomena, lies at the heart of the informed viewer's responses to most forms of "nonrepresentational" images. In other words, whenever we judge an abstract design to be balanced, dynamic, chaotic, and so on, we are engaging in analogical viewing and thinking. This argument is especially common in discussions of abstract art. For example, it has been claimed that, during the early years of the Cold War, certain organizers of international exhibits of U.S. art considered the wild, unruly style of abstract expressionism a graphic analogue of American freedom and individuality (Cockroft, 1974). However, as the Windows commercial makes clear, abstract analogical meanings are hardly the exclusive property of high art.

Abstract analogy is not confined to purely abstract images. To the contrary, the same argument that Arnheim and others have made about nonrepresentational images can readily be extended to the formal or stylistic features of pictures with recognizable content. Consider the case of what is often called "MTV-style" camerawork and editing— a style characterized by jump cuts, camera jiggle, swish pans, tilted framing, eccentric cropping, and the like. All of these stylistic traits are violations of the more traditional or accepted rules of visual composition in television and film, and their presence in a youth-oriented medium such as MTV can reasonably be interpreted as an analogical expression of youthful iconoclasm and rejection of past authority. More generally, there is a substantial body of research by anthropologists and art historians suggesting the presence of analogical connections between visual styles and cultural values, for example, a tendency toward stylistic rigidity in the visual media of authoritarian cultures (Fischer, 1961; Hatcher, 1988). It should be evident from these examples that the presence of recognizable objects or scenes in images (i.e., analogical representations based on direct visual similarity) is fully compatible with a different aspect of analogical meaning, expressed more abstractly through an image's form or style.

In addition to serving as conduits for pictorial representations and abstract designs, visual media can also convey a very different type of image—graphic displays of quantitative information. Here, too, analogical meaning plays a central role. When a quantitative relationship is represented in graphic form, whether in bar graphs, pie charts, or scale models, there is a precise analogical relationship between the dimensions of the visual representation and the corresponding physical quantities. This aspect of visual language has been explored extensively by Edward Tufte (1983, 1990, 1997) in a series of books describing the conventions of various types of information displays.[2]

What are the broader consequences of the analogical nature of visual language? What difference does it make that visual literacy is so largely a matter of analogical perception and cognition? As noted earlier, visual literacy can be viewed either proactively, as a gateway to cognitive enrichment, or reactively, as a defensive necessity in a world of potentially harmful media. From both perspectives, the relationship between visual literacy and analogical thinking is highly significant. Among scholars interested in the nature of creative thought, analogical thinking is commonly regarded as crucial not only to artistic creativity, but also to scientific reasoning and discovery (Boden, 1991; Hargittai & Hargittai, 1994; John-Steiner, 1985; Vosniadou & Ortony, 1989). In fact, it is sometimes seen as *the* basic component of creativity in both areas (Mitchell, 1993).

The classic illustration of this point in the area of science is the story of Friedrich von Kekule, the 19th-century chemist who discovered the structure of the benzene molecule. His initial assumption, that the six carbon and six hydrogen atoms in benzene were lined up in a row, was incompatible with other known facts about carbon and hydrogen. After much fruitless puzzling over this problem, the solution came to Kekule in a flash through an image that he saw in a dream. At first, he saw strings of atoms metamorphosing into snakes. Then, suddenly, one of the snakes reared back and seized hold of its own tail. As subsequent research confirmed, the structure of benzene is indeed based on atoms arranged in a circle (Findlay, 1965: 39).

The broader point of this story is that creativity is often (or, some would argue, always) a matter of proceeding by analogy from a familiar situation (in this case, the properties of snakes) to an unfamiliar one (the properties of strings of atoms, which, before Kekule, had been thought of only as straight lines). If this assumption about creative thought is correct, the interplay between visual literacy and analogical thinking can be seen, optimistically, as a broader enhancement of one's creative capacities.

What about the more reactive, or defensive, view of visual literacy? What are the consequences of analogical thinking from that perspective? In addressing this question, I would like to begin by describing one more area of visual language in which analogy plays a major role. The general principle here is as follows: By controlling the viewer's positioning vis-à-vis the characters, objects, or events in an image, including the image sequences of film or television, the image's producer can elicit responses that have been conditioned by the viewer's experience of equivalent interrelationships with real-life people, things, and actions. This kind of analogical connection is probably most clearly evident in the well-worn cliche of filming someone from a low angle to make her or him appear more imposing. The most frequent use of camera positioning as an analogical device is undoubtedly that which occurs when the distance (real or apparent) between the camera and its subject is employed as a means of modulating the viewer's identification or involvement with the characters or events on the screen. In other words, here we are dealing with a variable that is in virtually constant use in many movies and TV programs. It is one of the principal visual means for such effects as heightening the intensity of a scene as it moves towards its climax, maintaining the viewer's sympathy with the hero and emotional distance from secondary characters, or releasing the tension of a scene or of the movie as a whole following the resolution of the action, etc. (Zettl, 1990).

Because of the analogy between the role of camera-to-subject distance in such instances and the function of interpersonal distance as a regulator of intimacy and involvement in real-life social relationships, Meyrowitz (1986) has labeled this general area of visual language "paraproxemics." Although Meyrowitz's term is still not in wide use, the cluster of devices encompassed by the term has been investigated quite extensively by researchers concerned about the role of these devices as means of affecting the viewer's emotions or attitudes. Much of this research has dealt with the use of camera angles for persuasive purposes in commercial or political advertisements, but there have also been studies of viewers' emotional reactions to close-ups and subjective camera shots in movies and in political broadcasts (reviewed in Messaris, 1997, pp. 27–38). Furthermore, there is a large theoretical literature on the role of the camera's point of view in fiction film. As anyone familiar with the recent history of cinema studies will know, a major issue in feminist film criticism has been the tendency of mainstream Hollywood cinema to position the camera in such a way as to ally the viewer with a male point of view and to objectify the female presence in movies (Mayne, 1993; Mulvey, 1989).

In several ways, this substantial and varied body of literature has led to a general finding that may have important implications regarding the persuasive or emotion-eliciting uses of analogical devices. Although it might seem that paraproxemic devices (i.e., such things as dramatic close-ups, zoom-ins to significant objects, low angles of important people, and so forth) must be excessively obvious to most mature viewers, in fact the evidence suggests that quite the opposite is true. Even highly educated people with an interest in visual media—but no directly relevant education or practical experience—seem generally to be unaware of these kinds of things. This findings suggests that the area of paraproxemics would be a suitable target for media-literacy educators. The finding also hints at a broader conclusion.

If we ask why paraproxemic devices are so transparent to the average viewer, a likely answer might be that it is precisely their analogical quality, that is, their nonarbitrariness, that makes them transparent. Because they appear to be simple extensions of our everyday, real-world perceptual habits, we may interpret them without much conscious awareness or careful scrutiny. If these assumptions about paraproxemics have any validity, it may also be appropriate to extend them to the other aspects of visual analogy discussed earlier. In other words, it may be that the analogical character of visual images makes them an especially elusive means of audience manipulation, requiring special attentiveness on the part of the critically inclined viewer. In short, and perhaps somewhat paradoxically, the seeming transparency of visual representation may make the task of media educators more difficult, not less.

The Role of Implication in Visual Syntax

The syntax of visual language has to do with the relationships among two or more images, which can be either sequential over time (as in movie and TV editing) or simultaneously occurring in a single visual display (for example, the montages that are found in print advertising and elsewhere). In contrast to verbal language, visual editing and montage do not have a well-developed, fixed set of rules for specifying exactly how the events or situations in a series of images or in a montage arrangement are related to one another. This absence is especially obvious whenever movies have to resort to verbal labels or spoken dialogue in order to specify the temporal relationships between two or more scenes. For example, even such a highly sophisticated piece of filmmaking as Bryan Singer's *The Usual Suspects* had to use subtitles (e.g., "six weeks ago") to clarify the temporal sequence of its opening images. The fact that visual language lacks explicit relational indicators, however, also can be witnessed in any advertisement that uses visual montage to illustrate its selling point.

Consider, for example, two magazine ads for over-the-counter medications. Both have the same visual structure: a large image in the center, a smaller picture of the product in the lower right corner. In both cases, the central image is of a nature scene, featuring flowers, trees, and fields of grass. However, the implied relationship between product and image in the two ads is very different. The first ad is for Loratadine, an antihistamine, and the image is an indication of the dangers (namely, pollen and other natural allergens) that the product is meant to ward off. In the second ad, for a nutritional supplement (Naturalife Echinacea Herb), the image represents the pure ingredients from which the product is manufactured. In the former case we could say that we have a relationship of negation or counteraction, with the product as the causal agent. In the latter case, the product is the effect rather than the cause, and the relationship is one of enablement or creation. Yet, to repeat, the visual structure of the two ads is virtually identical. It is only through reading the verbal text that the viewer can figure out how that visual structure is to be interpreted in each instance.

How have the users of visual language responded to this syntactic indeterminacy or lack? In the early decades of the development of Hollywood cinema, there was some movement toward the establishment of fairly standardized conventions for at least some of the kinds of relationships that visual syntax must encompass. Anyone who is familiar with the movies of the 1930s and 1940s will immediately recall such standard devices as the leaf-shedding calendar, indicating the passage of time, or the spinning train wheel, indicating movement to a new location. However, as John Carey (1982) has demonstrated in a very thorough study of this aspect of film history, the long-term trend in cinema has been in the opposite direction from the one represented by such devices. Beginning at least as early as the 1950s, the typical tendency in Hollywood movies has been to avoid the use of visual conventions, including even fades and dissolves, whose sole function is to explain the transition from one scene to the next. Instead, filmmakers have come increasingly to rely on the viewer's ability to intuit the relationship between scenes on the basis of contextual cues.

Carey (1982) argued that this tendency in film history is a reflection of the increasing visual literacy of the broad movie-going and TV-viewing public. One could also argue that the film industry itself has acquired greater visual literacy over time, enabling filmmakers to signal the nature of syntactic relationships in ever more subtle ways. However, to scholars or educators concerned about the social implications of media languages, the lack of explicitness of visual syntax may seem less of an opportunity for the exercise of artistic creativity and more a means of manipulating the viewer. This is especially likely to be the case when one turns from movies and other entertainment media to the more overtly persuasive uses of visual images. As advertisers themselves have occasionally acknowledged, the lack of explicitness of visual syntax has a very important consequence for practitioners of visual persuasion: It makes it possible for them to convey persuasive messages in visual form that would be controversial or unacceptable if spelled out verbally.

As an illustration of this point, consider one more instance of a magazine ad with a nature scene as its central image. This nature scene is a little different from the two described above. It is a pristine mountain landscape, with the clear waters of a lake in the foreground, a dense forest of evergreens in the middle distance, and, behind the trees, a snow-capped mountain rising into a cloudless sky. Similar scenes can be found in almost any environmentalist magazine, where they are featured frequently in ads for earth-friendly products, nature travel, wilderness preservation campaigns, and the like. In this particular ad, however, the product, displayed in the lower right corner of the page, is a pack of cigarettes (Richland). In fact, if one were to do a survey of the various kinds of images that are typically used in cigarette ads, one would find that nature images are among the most common. Why this association? The text, if any, never spells it out in words, but one possible reason for this imagery may be an attempt to counteract public perceptions of cigarettes as unhealthy. A similar rationale may account for advertisers' frequent pairing of cigarettes with sports and images of vigorous young people horsing around while smoking. In today's political climate, it is inconceivable that any health-related implications contained in such juxtapositions could be expressed verbally (e.g., an ad proclaiming that "all the purity of a mountain lake is packed in our cigarettes" or "smoke our cigarettes for a healthy outdoor lifestyle"). Yet, because of the implicitness of visual syntactic connections, cigarette advertisers may be able to convey equivalent messages with impunity.

Cigarette ads are by no means the only form of advertising in which visual syntax is used as a vehicle for implying meanings that would be less acceptable if formulated explicitly in words. This practice is also commonly found in liquor advertising and in ads for health-related products, to name just two other areas. In the case of liquor advertising, visual syntax makes it possible for ads to imply a connection between drinking and sex without claiming it explicitly. What exactly is that connection? In exceedingly rare examples, it is actually put into words, as in a Courvoisier Cognac ad with the caption, "Sometimes romance needs a little nudge" (under an image of two glasses side-by-side), or a Colt 45 billboard featuring a man, a woman, a can of malt liquor, and the slogan, "It works every time." Much more typically, though, such connections between liquor and sex are confined to the visual syntax of the ad (e.g., the malt liquor ad minus the slogan), where their implicit nature may dampen the protests of critics who disapprove of the use of liquor as a sexual facilitator. When it comes to health-related advertising, on the other hand,

visual syntax can sometimes serve not just as an indirect purveyor of controversial meanings, but also as a means for making claims that are actually fraudulent. This use of visuals has been investigated in some detail by Khoury (1997), who has found that ads for such products as nutritional supplements routinely use images to imply health benefits not supported by any medical documentation.

There is good evidence that viewers do make the kinds of implicit connections between images that are suggested in these examples (Mitchell & Olson, 1981; Zuckerman, 1990). However, there is also evidence that they tend to do so unthinkingly or automatically (Messaris, 1997, pp. 203–218), without necessarily being aware of the strategies deployed in such ads. As Judith Williamson (1978) observed in her pioneering study of the semiotics of advertising, the visual syntax of ads seems to have the capacity to "naturalize" the connections it establishes between products and images, in the sense that viewers come to take those connections for granted despite their often problematic status. Because it can also be argued that the establishment of a visual product-image connection is the principal goal of most pictorial advertising (Goldman, 1992), it follows that this aspect of visual language would be a productive area on which media literacy educators could focus. The aim of education on this topic should be to "denaturalize" the ads' visual syntax, that is, to encourage viewers to examine the extent to which they themselves have accepted the implications of that syntax. Additionally, when those implications can meaningfully be examined against known facts, as is the case with many examples of misleading or fraudulent health-products advertising, a visually literate viewer should make the effort to do so.

Conclusions

If knowing about the languages of media is an important component of media literacy, an understanding of visual language should be a major goal of media-related scholarship and education. In this essay I have tried to describe two basic properties of visual language: the analogical relationship between images and the concepts for which they stand and the implicitness of the connections established through visual syntax. A visually literate person can use these properties either as tools of creative thought and expression or as foundations for resisting the potentially negative influences of visual media. These properties of visual language can also serve as focuses for formal education about media literacy. There is consider able evidence that such educational efforts can be effective in both senses described above, especially when they actively engage students in the production of videos or other visual formats (Perkins, 1994; Tidhar, 1984). In conclusion, then, this essay should be taken as a call for heightened attention to visual literacy in educational curricula—not in competition with verbal language learning, but as a valuable complement to it.

Note:

[1] A number of well-known writers (e.g., Eco, 1976; Gombrich, 1960; Goodman, 1976) have questioned the idea that pictorial representation is based on analogy. However, their position has been contradicted by a growing body of empirical evidence (see Messaris, 1994, for a review), and it has been challenged by much recent scholarship in visual communication (e.g., Anderson, 1996; Carroll, 1996; Currie, 1995; Danto, 1992; Grodal, 1997; Kennedy, 1993; Reeves & Nass, 1997).

[2] The need for visual literacy in this area has also been investigated by Prabu David (1992), in research

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