Visual Literacy vs. Visual Manipulation

PAUL MESSARIS

The concept of visual literacy appears to have originated in the notion that visual communication depends on shared conventions which may be likened productively to the syntactic and semantic conventions of spoken and written language. Systematic treatments of this notion occur at least as early as the 1950s in analytical writing about motion pictures, such as Raymond Spottiswoode's *Grammar of the Film* (1950). As this title suggests, Spottiswoode's version of the analogy between visual communication and language was expressed in the formulation of "grammatical" rules, thought to account for the ways in which meaning is created through visual composition and editing.

The attempt to explicate rules or regularities of this sort remains a concern in film scholarship (for example, Bordwell et al., 1985; Carroll, 1980; Metz, 1974), as well as work on other visual media (for example, Dondis, 1973; Saint-Martin, 1990; Prince, 1990; Zettl, 1990). The term visual "literacy" appears in writing on this topic as a comprehensive label for the cognitive skills involved in the fluent use of these visual "grammars." In an influential early definition, Debes describes visual literacy as follows: "a group of vision competencies [that] enable a visually literate person to discriminate and interpret . . . visible actions, objects, and/ or symbols Through the creative use of these competencies, [a person] is able to communicate with others. Through the creative use of these competencies [the person] is able to comprehend and enjoy the masterworks of visual communication" (Debes, 1970, p. 1).

As Debes's statement makes clear, scholarly writing about visual literacy initially emphasized its cognitive and aesthetic implications. This emphasis is characteristic of much subsequent scholarship (for example, Braden et al., 1993; Curtiss, 1987; Foss and Kanengieter, 1991; Metallinos, 1992). At the same time, however, the scope of visual-literacy studies has been broadened to include an additional, relatively distinct issue, namely, the possibility that visual literacy may be a means of counteracting the influence of visual media on their viewers. More specifically, it has been argued that an understanding of how visual communication works--how visual conventions are used to create meaning and to elicit responses from viewers-may make a person better able to resist the power of television and other visual media (see Brown, 1991; Kubey & Ruben, in press; Lewis, 1992; see also Gomery, 1993, p. 45, for a discussion of visual literacy as an alternative to media censorship). In short, this formulation sees visual literacy as a means of defense against visual manipulation. It is this view that will be the focus of the following discussion.

The elements of this defensive aspect of visual literacy vary somewhat, depending on which particular type of visual manipulation is at issue. In the case of advertising and other persuasive uses of visual media, one set of studies has sought to specify the nature of the manipulative devices that might be known by visually literate viewers. Related research has examined the extent to which various categories of viewers are aware of the devices in question. However, a different line of argument has focused on advertising techniques that purportedly elude conscious perception-and may therefore be impervious to "literate" viewing.

An emphasis on covert (and, by implication, potentially undetectable) practices has also been characteristic of much recent writing on the ostensibly informational uses of visual media. Of particular concern have been two forms of visual fabrication: first, the computer-assisted alteration of photographs; second, the staging of photographic images that are subsequently presented as authentic documents. In both cases, discussion has centered on how awareness of the possibility of fabrication might affect viewers' beliefs about the relationship between photography and reality. Similar questions have been raised about another feature of the visual media's documentation of reality, namely, its inevitable selectivity.

The kinds of concerns described thus far-issues of visual persuasion and visual misinformation-have also played a part in scholarship dealing with the broader social consequences and ideological implications of visual communication. However, because much of this scholarship has focused on fictional genres, it has investigated an additional topic that may be less relevant to the study of advertising or news, that is, the illusion of reality that certain forms of visual fiction seek to cultivate in their viewers. Operating on the assumption that this illusion encourages an unquestioning acceptance of a film or TV program's ideological premises, some researchers have investigated how viewers respond to the visual devices on which the illusion is thought to depend.

The following discussion examines visual literacy in reference to each of the areas of concern outlined above: visual persuasion, visual misinformation, and the illusion of reality in visual fiction. However, the discussion is also motivated by a question cutting across all three areas: What are the social consequences of the ways in which scholars, journalists, and other commentators have framed public discussions of visual manipulation and visual literacy? This question *will* be addressed most directly in the discussion's concluding section.

Visual Persuasion Positioning the viewer A standard illustration of the idea that visual conventions are like a language is the familiar compositional device of varying the angle of view in order to affect viewers' perceptions of the power of a person in an image. According to this traditional usage, low angles of view, which create the effect of looking up at someone, enhance the image's implications of power, while high angles do the opposite. This relationship between form and meaning is one of the most regular and stable conventions of visual communication (although it is, of course, inevitably dependent on context; cf. Bordwell and Thompson, 1986). It is presumably such characteristics that have led writers to describe this and other conventions as constituting a visual language or grammar.

Pursuing the comparison with language further, Dyer has argued that a viewer's ability to make sense of this device must result from prior exposure, from the fact that "we have learned the codes and conventions of television and film practice" (Dyer, 1989, p. 131). But here the linguistic metaphor has probably been stretched too far. In the case of language, prior learning is a prerequisite of interpretation because the connections between sound and meaning are arbitrary. However, the angle-of-view convention is a relatively clear instance of a nonarbitrary, analog relationship between form and meaning. It derives its significance by replicating the form (and, hence, some of the implications) of a real-world visual experience (looking up at someone vs. looking down at her/him). This analog quality suggests that a viewer's ability to understand the angle-of-view convention may be less dependent on prior learning than is linguistic comprehension. Precisely for this reason, however, it could be argued that this convention is a particularly good example of the need for the defensive kind of visual literacy that is the focus of this discussion. The more transparent a convention is, the less viewers may be aware of it. For example, a verbal slogan proclaiming a politician "a strong leader" may be a more obvious persuasive device-- to some people--than a campaign picture showing her/him from a low angle.

Viewers' awareness of angle of view in a political context was explored by Mandell and Shaw (1973), in an early experimental study of this convention. College students attending introductory classes in a department of radio, television, and film were asked to make judgments about a political figure appearing in a newscast. There were three versions of this person's image: one taken at eye level, the others at angles of twelve degrees below or above his eyes. The students' ratings of how powerful the person looked varied according to which of the three versions they were shown. As expected, lower angles led to higher ratings. It turned out, though, that most of the students did not seem conscious of the influence of angle of view. At the conclusion of the study, they were asked directly to comment about camera angles used in the newscast. Out of a total of 78 students

who saw either the high- or the low-angle versions, only thirteen showed some awareness of this device in their responses (Mandell and Shaw, 1973, p. 362).

What makes this finding especially interesting is that these students, all enrolled in media courses, can presumably be regarded as relatively "literate" viewers, compared to the broader public. This feature of the study gives added force to its implications regarding the unobtrusiveness of visual conventions. On the other hand, it is conceivable that some of the students *did* notice the high or low angle but did not consider it worthy of comment. It is also conceivable that, despite their interest in media studies, some noticed the angle but could not express their awareness because of a lack of familiarity with technical terminology. In research of this sort, the latter possibility poses a recurring methodological obstacle.

The angle-of-view convention can be considered part of a larger family of visual devices having to do with how the viewer is positioned relative to the people or objects in an image. (See Meyrowitz, 1986, for a general theoretical treatment of this area of visual communication.) A prominent member of this family of devices is the subjective shot, which simulates the point of view of one of the characters in a movie, TV program, or commercial. This kind of shot positions the viewer "inside" the action on the screen, and has traditionally been considered a means of eliciting identification with the character through whose eyes the action is shown.

The use of subjective camera was studied by Galan (1986), who showed viewers three versions of a commercial in which two characters discuss the merits of a new (fictitious) product. One version presents the action through the eyes of a person praising the product. The second version gives the point of view of the person listening to these comments. In the third version, the action is presented without any subjective shots. As Galan expected, the two subjective versions were received more favorably than the third version. For present purposes, the more notable finding of this study had to do with the viewers' understanding of the visual variable being manipulated. Each viewer initially saw only one of the three versions of the commercial. After responding in detail to that one version, viewers were shown the other two and asked to describe the differences among them. Although the viewers were all marketing students and probably more knowledgeable about advertising than most people, only a minority referred explicitly to the fact that the two subjective versions were meant as representations of someone's point of view.

As testimony about educated people's lack of visual literacy, this finding could be considered even more revealing than that of Mandell and Shaw, since Galan's viewers could compare different applications of the variable they were being asked about (although, unlike Mandell and Shaw's viewers, they were not given any indication of what kind of device to look for). As with Mandell and

Shaw, however, Galan's procedure for investigating awareness raises obvious methodological questions that make it difficult to take the results entirely at face value. Moreover, as will be seen presently, similar problems of method have also bedeviled other attempts to study viewers' understanding of the persuasive uses of visual conventions.

Associational Juxtaposition of Images

Although the studies examined above provide a suggestive first view of the scope and some limitations of empirical research on visual literacy, the conventions examined in those studies usually play a subsidiary role as persuasive devices. The primary role in the visual organization of much political advertising and most commercial advertising is played by the device of associational juxtaposition. As Craig has pointed out in an examination of the origins of contemporary advertising practices, the use of visual imagery in commercial advertising has traditionally been guided by assumptions borrowed from behaviorist psychology (Craig, 1992, pp. 166-170). In particular, it has been assumed that attitudes toward a product can be shaped by juxtaposing its picture with other images. This "Pavlovian" notion of the transfer of meaning through association has been embraced openly in the advertising literature (see Stout, 1984).

Empirical support for this notion has come from a variety of sources. The general proposition that a viewer's responses to an object can be conditioned through visual association has been confirmed most memorably in a pair of experiments (Rachman, 1966; Rachman and Hodgson, 1968) in which associational juxtaposition was used to turn viewer into boot fetishists. As far as the specific area of advertising is concerned, what is commonly considered the definitive demonstration of the efficacy of associational juxtaposition was provided by Mitchell, in two related studies (Mitchell, 1986; Mitchell and Olson, 1981). In these studies, pictures of products were paired with a variety of images; as expected, viewers' ratings of the products corresponded to the particular pairing that they were shown. Correspondences of this sort have also been obtained in a non-laboratory situation by Zuckerman (1990), who compared one group of viewers' judgments about real products with a matched group's judgments about the associational imagery used in exiling advertising for those products.

Viewers' awareness of associational juxtaposition was examined by Messaris and Nielsen (1989). This study dealt with the use of visual association as an editing strategy in TV advertising. As Prince (1990) has pointed out, television advertisers have resurrected an editing device that was relatively common in early Soviet cinema, as well as other films of the 1920s and 1930s, but has since all but

disappeared from the fictional screen. The device in question consists of cutting back and forth between the principal subject of a scene and omit other image: for example, in Eisenstein's *Strike* (1925), cross-cutting between a massacre' of striking workers and the butchering of animals in a slaughterhouse. In its rebirth as a TV advertising convention. This cross-cutting strategy has been employed for associational purposes both in commercials and in political ads.

Messaris and Nielsen's study was based on two examples of associational crosscutting. The first example was the opening scene of a political campaign video, "A New Beginning," used in the promotion of Ronald Reagan's re-election in 1984. In the extract used in the study, Ronald Reagan's first-term inauguration is intercut with early-morning images of people going to work. As Morreale noted in a detailed analysis of this scene, the cross-cutting expresses the video's overall theme, namely, that Reagan's first term in office was a time of economic and spiritual renewal (Morreale, 1991, pp. 71-75). The second example of associational juxtaposition used in the study was a commercial for a popular brand of fruit preserves, in which pictures of the product are intercut with images of rural life, suggesting wholesomeness and traditional values.

In an attempt to assess the perceptions of people with different levels of education and visual literacy, the study included three groups of viewers: people without a college education; people with a college education; people employed professionally in TV production. Each viewer was shown one of the two examples of cross-cutting and asked to describe what she/he thought the intention of the sequence was. The primary question guiding the analysis of the responses was whether a viewer made any reference to an intended conceptual connection between the candidate or product and the intercut imagery (for example, "It's an attempt to relate Ronald Reagan with down-home American values"). Such references appeared as follows: among the viewers without college education, 22 percent in the case of the Reagan campaign video and 50 percent in the case of the fruit-preserve commercial; among the college-educated viewers, 59 percent in the case of the Reagan video and 100 percent in the ca

Once again, the use of a verbal method of assessing viewers' perceptions makes it difficult to be entirely confident about these findings. One cannot discount the possibility that the relatively low frequencies recorded among the less-educated viewers are due at least partly to a lack of a suitable vocabulary, rather than absence of awareness of the associational aspects of the editing. Even some of the more-educated viewers may have been hampered by unfamiliarity with technical terms. In view of these reasons for skepticism, perhaps the most prudent approach to these findings would be to treat them as indicators of issues that could be

explored further through more suitable (less verbal) methods. Nonetheless, it is worth asking what the implications of the findings would be if they were taken at face value.

All the evidence reviewed so far could be seen as supporting the position of educators and others who have argued for more public attention to problems of visual literacy. However, in certain respects this appearance of congruence may be misleading. Arguments about the need for visual literacy are often predicated on the claim that the visual devices used in advertising and other forms of potential manipulation evade awareness because of their complexity and deviousness. (Such arguments will be considered further below.) But it is important to emphasize that the devices examined in all three studies discussed here are in fact among the most rudimentary of visual conventions. In other words, rather than demonstrating any great subtlety in the visual means available to advertisers and propagandists, these studies actually suggest that many viewers may overlook even relatively obvious visual tactics. This point should be kept in mind in the following section of this discussion, in which the focus shifts to arguments about subterfuge in visual persuasion.

Covert Persuasion

Since the publication of Vance Packard's *The Hidden Persuaders* (1957), public discourse about advertising has frequently been framed as a defensive reaction against sophisticated, scientifically-informed techniques deliberately designed to avoid detection. This model of visual persuasion is especially likely to be encountered in mass-market publications, but it is by no means absent from the more scholarly literature on advertising practices. A recurring focus of arguments driven by this model is the issue of subliminal persuasion. Indeed, this kind of device is probably the canonical example of public conceptions about visual subterfuge.

Concern about subliminal advertising first surfaced into public awareness in 1957, when a market researcher's speculations about the effectiveness of brief, unconsciously-perceived messages, surreptitiously embedded in movies, were mistakenly reported as facts. Since then, the topic has been popularized in a series of publications by Wilson Bryan Key (1973, 1976, 1981, 1989). Key's descriptions of techniques of subliminal persuasion have tended to deal with print media more than with film or television. For example, in the introductory chapter of his most recent book he invites the reader to scrutinize an ad for Tanqueray gin that reportedly appeared in *Time* magazine and other national periodicals. The ad portrays a stream of gin flowing into a glass. According to Key, if one isolates a certain section of this design, one notices that a "formidable, erect, male genital has

been embedded into the gin stream" (Key, 1989, p. 15). Similarly, he makes the following observation about the icing in an ad for Betty Crocker Super Moist cake mix: "Any standard anatomy text will confirm that the shape painted into the icing is an accurate tumescent female genital. 'Super Moist,' at the portrayed state of excitation, constitutes a normal physiological event" (p. 17).

Specific interpretations of this sort are perhaps best considered matters of individual judgment. There may also be toward the general premise from which such techniques presumably stem, viz., the idea that elements of a visual design can evoke acontextual interpretations to which viewers respond without being aware of them. The assumption that an image's graphic shapes are meaningful in themselves is of course a commonly- accepted tenet in psychologically oriented theories of art (for example, Arnheim, 1988; Bang. 1991), and this assumption has been supported by applied research in graphic design (Espy. 1983). There is also empirical support for assuming that certain abstract shapes are commonly-perhaps even cross-culturally- perceived as connoting femininity or masculinity (for example, see Fischer, 1961), and research on stylistic features of television commercials has shown that such abstract features as editing rhythm are capable of connoting gender to children (Huston et al., 1984; Welch et al., 1979).

In certain respects, then, beliefs in the efficacy of subliminal persuasion can be said to rest on foundations that are not particularly controversial. On the other hand, at least one element in these beliefs clearly goes beyond these more traditional conceptions of viewers' responses to visual media. In the research cited above, the graphic or other formal features that were tested were, in all cases, openly available for the viewer's inspection- even if some viewers were not consciously aware of them; in subliminal advertising, on the other hand, embedded objects or words are typically camouflaged or presented only very faintly. In order to work, therefore, a subliminal ad of this sort would have to elicit not only unconscious perception but also unconscious decipherment of a visual puzzle. This aspect of visual persuasion has been tested in a number of studies, and the results were generally negative (see Pratkanis and Aronson, 1992, for a review).

Still, even if one were to accept fully the possibility that subliminal persuasion does work, another aspect of the matter may ultimately have more import for understanding social perspectives on visual manipulation and visual literacy. Subliminal advertising has been expressly condemned by more than one government agency, and except for occasional examples offered by Key and other writers, there is no evidence that it is even a marginal practice among mainstream advertisers. Under the circumstances, the continuing public receptivity to authors such as Key (all of whose books are still in circulation) must be seen as something other than a reasoned response to actual experiences of deception.

The introduction to Key's latest book contains the following claim about the book's benefits: "The ideas and information can be used by anyone in a media dominated environment to protect themselves against exploitation by picture and word symbols" (Key, 1989, p. xvii). This is a typical example of visual-literacy advocacy. But the concern for visual literacy has been directed against a rare, perhaps largely imaginary, form of manipulation, even though there is no reason to assume a general public awareness of the more basic manipulative conventions (and, as noted above, some weak grounds for assuming the contrary). In other words, without any evidence (or even contrary to the evidence), the attainment of visual literacy has been cast as a confrontation with a highly devious-but almost nonexistent-antagonist, instead of a more simple-but ubiquitous-one. This seeming paradox will be encountered again when this discussion addresses issues of visual fabrication and misinformation. This paradox is also present, to a certain extent, in the more academically oriented advertising literature.

With a few exceptions (for example, Ewen, 1988, pp. 48, 51), scholarly analyses of advertising have not been concerned with subliminal imagery in the sense described above. Instead, they have tended to scrutinize the overt contents of images in search of implicit meanings (as opposed to embedded objects). For instance, such analyses may treat the elongated shapes of cigarettes, bottles, or other objects as phallic symbols (see Wernick, 1991, pp. 41, 60-61, 76-77). The psychoanalytic approach informing much of this literature is illustrated explicitly in Haineault and Roy's (1993) analysis of a print ad for Rolex Cellini watches. Noting the juxtaposition of a watch with a statue (attributed implicitly to Benvenuto Cellini), the authors observe: "The representation 'watch' refers to the measurement of time, to limitation, and to noneternity, in other words, to the mortality, corporeality, and narcissistic castration of the subject" (Haineault and Roy, 1993, p. 48). The statue, on the other hand, represents the timeless perfection of art. But (their analysis goes on to say) it can also be seen as the effigy on a tomb, while the gold watch can itself be seen as a work of art, and thus, through a combination of displacement and denial, negative can be transformed into positive. Thus, what could be taken as a straightforward attempt to associate a product with the desirable qualities of a work of art (a standard practice in the advertising of luxury items) is treated, in this analysis, as a complex ensemble of repressed meanings and redirected drives.

Similar complexity is often attributed to advertising imagery by critics concerned more directly with ideological matters. In analyzing an ad for Gucci No. 3 perfume, Stuart Ewen cites Bakhtin for the notion that formal classicism in works of art serves to "naturalize" hierarchical social orders by reinforcing such values as permanence, order, and exclusivity. Ewen applies this notion to the perfume ad, in whose "cool, porcelain tone" he sees "a depiction of beauty that has

served the interests of exclusive power for centuries" (Ewen, 1988, p. 86). In other words, according to this analysis, the seductive formal qualities of this image have the effect of inveigling viewers into an acceptance of metaphorically equivalent formal qualities-stability, hierarchy-in the social world.

Referring specifically to the work of Judith Williamson (1978) and Michael Geis (1982), Cook has argued that ideological critics of advertising tend to devalue the critical abilities of ordinary viewers, who are seen as "vulnerable and easily deceived" (1992, p. 205). But what seems more remarkable is these critics' high estimation of advertising practitioners' psychological perspicacity and tactical elusiveness. It is interesting to compare this conception of the advertising industry with what practitioners themselves say in describing what they do (Antin, 1993; Ind, 1993; Wolf, 1988). Although references to motivational research and the collective unconscious and patriarchal culture are certainly not absent from this literature (see Randazzo, 1993, pp. 35, 90, 172-174), David Ogilvy's (1983, p. 14) advice is probably more representative: "It pays to give most products an image of quality This is particularly true of products whose brand-name is visible to your friends, like beer, cigarettes and automobiles." Michael Schudson's discussions with advertising professionals suggest that the creation of individual advertisements is typically guided by informal, intuitive understandings rather than by any existing theories of advertising which, in any case, contain very few specific guidelines for "visually oriented strategies" (Schudson, 1984, pp. 84-85). As an expression of psychological intuition, Ogilvy's statement-which encapsulates the concepts of associational juxtaposition and conspicuous consumption in two sentences-is hardly simpleminded. But the process it envisions is not easy to reconcile with the indirectness and circuitousness assumed in much scholarly writing about advertising. A similar emphasis on devious, hard-to detect forms of manipulation is present in recent scholarly and critical writing about visual misinformation, discussed next.

VISUAL MISINFORMATION

The Alteration of Photographic Images

Since the early 1980s, the communication industry's processing of photographs has increasingly relied on digital imaging technology, which entails the electronic encoding of images for purposes of storage, transmission, or computer assisted alteration. The latter process has become particularly controversial as its use has spread. It has been calculated that by 1989 ten percent of all color photographs published in the United States were altered in some way by computer (*Wall Street Journal* estimate, cited in W. Mitchell, 1992, p. 16). This practice originated as an extension of earlier routine procedures (for example, re-touching, color-correction,

and so forth). but the greater precision and wider variety of the changes enabled by new technology have elicited increased levels of scrutiny.

In addition to surveying the history of digital imaging technology and explaining its technical aspects, William Mitchell (1992) provides a useful overview of the applications of this technology that can raise questions of misinformation and visual falsehood. He groups these potentially problematic applications into three general categories: (1) *insertions*, exemplified by a *Newsday* cover photo in which a single fighter jet's image was pasted repeatedly into a scene, giving the impression of an entire formation of jets flying in unison (pp. 196, 200); (2) *effacements and elisions*, for example, the deletion of a shoulder holster and pistol from a *Rolling Stone* cover photograph of a TV cop show star (p. 202); (3) *substitutions*, such as the grafting of Oprah Winfrey's head onto the body of Ann-Margret in a *TV* Guide cover image (p. 209). Mitchell also mentions another kind of alteration, which might be termed *rearrangement*, for example, the February, 1982, cover of *National Geographic*, in which two Egyptian pyramids were shifted closer together in order to enhance the aesthetic appeal of the photograph (p. 16).

Critical discussion of such practices has dealt extensively with their implications for viewers' attitudes about the truth value of photographs. In a widely cited account, Fred Ritchin, former director of photography of the *New York Time Magazine*, gives his reaction to a manipulated photograph that appeared in *Newsweek* on January 16, 1989. The photograph showed the two stars of the film *Rain Man* standing next to each other. Some two weeks after the picture's publication Ritchin discovered that this image was a composite, put together from two individual photographs. Ritchin responds: "I felt not only misled but extraordinarily shaken, as if while intend observing the world it had somehow still managed to signify change without my noticing." In reference to photography in general, he adds that "now the viewer must question the photograph at the basic physical level of fact" (Ritchin, 1990, p. 9; see also Harris, 1991, p. 167).

The vehemence of this reaction is not unusual. The kind of radical attitudinal shift that Ritchin recalls experiencing has been forecast for the general public in other writers' analyses (Brand et al., 1985; Grundberg, 1990; Harris, 1991; Martin, 1991; W. Mitchell, 1992). The shared assumption behind such forecasts is that the public has hitherto viewed photographs as direct, unimpeachable records of reality; and that growing public awareness of digital imaging practices will eventually lead to a collapse of faith in the entire medium. Intense concern about how to avoid this outcome has been expressed both by academic observers (for example, Bossen, 1985) and by journalists directly involved with the computer manipulation of images (see Lasica, 1989).

The first thing to be said about these expressions of concern, especially when they come from the world of academic scholarship, is that there is a certain element of self-contradiction in them. In academic writing on photography, the broad public's supposed faith in the medium has commonly been viewed as "naïve realism," and considerable effort has gone into undermining its foundations. In fact, a persistent and broad-based attack on photography's documentary status has traditionally been a central theme of photographic criticism (For example, Curtis, 1989; Freund, 1980; Snyder, 1980)-as Ritchin himself acknowledges elsewhere in his book (Ritchin, 1990, pp. 81ft). Under these circumstances, one might have expected that predictions of a widespread loss of faith in photography would be greeted with approval, as evidence that "photographic literacy" was finally about to spread to the many from the few.

This point leads to a related observation. One of the many underpinnings of the "anti-realist" tradition in photographic scholarship has been the fact that photographs could always be altered, often in ways that were as convincing as the results of today's computer-based techniques. Earlier methods of alteration have been described in some detail by Jaubert (1989, pp. 9-14), in the introduction to a major study of the use of these methods by totalitarian regimes. Among the various forms of alteration discussed in this study, perhaps the most striking is the visual obliteration of political figures who had fallen from favor or lost leadership struggles--for instance, the elimination of Leon Trotsky from a 1920 photograph of Lenin, following Trotsky's exile and murder under Stalin; the removal of Liu Shaoqi from a photograph of Mao, after Liu had been tortured and killed during the Cultural Revolution; and the effacement, from a picture of Fidel Castro, of a former associate who went into exile following Castro's support of the Soviet invasion of Czechoslovakia (Jaubert, 1989, pp. 30-31, 116, 160, respectively).

It is instructive to compare these examples with the kinds of alterations addressed in criticism of digital imaging. Most of this criticism has dealt with the cases mentioned earlier, in connection with Mitchell's category system, and with such other examples as the removal of a Diet Coke can from the picture of a Pulitzer Prize winner celebrating his award (see Christians et al., 1991, pp. 61-64). Even though this incident and the ones cited by Mitchell may seem relatively insignificant-at least in contrast to those described by Jaubert-the effacement of the Coke can was "hotly debated" by the staff of the newspaper in which the picture was published. The paper's policy for news photographs now prohibits any computer manipulation for purposes of "moving, eliminating, or adding elements" (Christians et al., 1991, pp. 61, 64). Formally or informally, similar approaches have been adopted at other major publications, although editors have typically reserved the right to make more substantial changes in photographs used outside of news or documentary contexts (Reaves, 1991).

The attention received by the Coke can erasure and other arguably minor episodes could be seen as evidence of the extreme scrupulousness informing the news media's processing of images. From another perspective, however, this evidence becomes more questionable, and any confidence it might inspire appear somewhat spurious. As Christians et al. make clear in their presentation of the Coke can picture before and after its alteration (1991, p. 62), the removal could have been achieved by cropping. The can could also have been omitted if the initial photograph had been taken from a slightly different angle in the first place. Unlike cropping or other means of post-facto alteration, this aspect of photographic "manipulation" – selectivity in angle of representation or in choice among images - is an inevitable element in any act of picture taking; and, in contrast to these other practices, it is an act that would be much more difficult to regulate through hard-and-fast rules.

From these considerations emerge two questions that visual-literacy scholarship has not yet addressed adequately and that therefore suggest directions for future research: To what extent has the occasional publicity surrounding image alteration (perhaps most notably the case of the *TV Guide* Oprah Winfrey cover) actually led to a broader awareness about techniques of photographic manipulation? Conversely, to what extent have editors' public commitments to avoid computer alteration of news photographs resulted in a (possibly unwarranted) increase in viewers' confidence regarding the veracity of mass-mediated visual information?

The Staging of Photographic Images

Critical examination of the alteration of photographs is often accompanied by concern over another form of potential misinformation, the presentation of staged images as if they were authentic. Fred Ritchin's discussion of the composite *Newsweek* photo also mentions one of the most controversial instances of staging, an ABC news program's unlabeled "re-enactment" of an alleged spying incident involving the transfer of a briefcase from a U.S. citizen to a Soviet agent (Ritchin, 1990, p. 26). This episode drew criticism not only for the unacknowledged staging but also because the staged scene turned out to contain inaccuracies (for example, the actual incident occurred in a different location from the one shown in the "re-enactment"; see Schorr, 1989, p. 47). The staging of "news" was also the focus of considerable attention in a more recent case, a "Dateline NBC" broadcast whose images of a G.M. truck catching fire in a collision had been created by rigging the truck with hidden explosives (Carter, 1993). General Motors responded by withdrawing its advertising from all NBC News programs, but the ensuing publicity is said to have increased "Dateline NBC's" ratings (Zurawik and Stoehr,

1993, p. 30). It was subsequently revealed that similar tampering with vehicles has occurred repeatedly in other TV news stories on car and truck safety (Olson, 1993).

Beyond its use in "news" contexts, staging has come to be seen as problematic because of the increasing variety of television formats for which traditional labels of "reality" or "fiction" no longer seem applicable: "Today, distinctions between TV news, info-tainment programs, docu-dramas, historically based' miniseries. or other forms of fictional television entertainment may be less clear than we have assumed" (Griffin, 1992, p. 124). Furthermore, there is a lengthy record of unacknowledged or boundary-blurring staging in political advertising (Jamieson, 1992, pp. 147ft). This history includes: the Hollywood industry's use of faked film of left-wing immigrants in an attempt to discredit socialist Upton Sinclair's campaign for governor of California (G. Mitchell, 1992); the staging of enthusiastic studio-audience responses in the TV shows that formed a large part of Richard Nixon's 1968 presidential campaign (McGinnis, 1969); and the intercutting of staged and documentary images in Ronald Reagan's 1984 campaign advertising (Morreale, 1991). Finally, visual fabrication of a different sort has been an issue in the case of pictures produced for scholarly purposes, and there is a sizable literature on the staging of ethnographic and other "documentary" images (Jacknis, 1984; Lyman, 1982; Scherer, 1975).

Whereas the computerized alteration of images is commonly assumed to be virtually undetectable (so long as it conforms to criteria of plausibility), viewers' awareness of the presence of unacknowledged staging is a more open issue. Cialdini (1993) has argued that simulating natural behavior is not always easy and that certain kinds of staging should therefore be obvious to the viewer. He cites in particular the use of supposedly unrehearsed-but, in his view, "blatantly phony"-testimonials in TV commercials. All the same, the more typical assumption in critical commentary is that simulations do deceive viewers (Linn, 1991; Saltzman, 1989; Slattery and Tiedge, 1992), and there is no shortage of supportive anecdotes, such as the case of an actor who was mistakenly turned in to the authorities after portraying a fugitive in a TV "re-enactment" (Zoglin, 1989, p. 98).

As these examples suggest, it seems reasonable to suppose that awareness of staging may depend in part on the context. This possibility seems an appropriate candidate for future research on visual literacy. That viewers tend to be more alert to the possibility of deception in advertising than in other contexts is perfectly conceivable. Moreover, since some forms of "reality-based" programming are relatively recent developments, it may be that viewers have not yet formed stable interpretive frameworks for dealing with such material. As Gross (1985) has pointed out, experienced viewers may operate on the basis of a complex set of distinctions regarding the degree and kind of staging (or other manipulation) present in any particular genre.

What happens when viewers do become aware of staging? To a certain extent, scholarly and journalistic commentary on this point has paralleled the criticism of alteration reviewed above. In particular, it has been predicted that the increasingly frequent presence of "reenactments" and other kinds of staged material in the news may lead to a general erosion of the public's faith in news images (Saltzman, 1989). Slattery & Tiedge (1992) asked viewers to judge the credibility of staged news segments with or without labels acknowledging the staging. The use of such labels was not found to have any consequences for viewers' judgments about individual news segments (which were presumably taken as authentic when the labels were absent). However, ratings of credibility did go down when viewers were shown a program in which more than one story was labelled as having been staged.

As in the case of alteration, one's attitude toward such a finding, and toward the more general prediction that it supports, will presumably depend on one's beliefs about the appropriate degree of faith that the news deserves in the first place. The strong position that some broadcasters have taken against staging in the news mirrors the position of newspapers toward alteration, and may be questioned on similar grounds. As Lee and Solomon put it, referring to the "brouhaha over TV news 'simulations' ": "Widespread condemnation of this practice has been ironic, given that so much of the news blurs fact and fiction on a routine basis. When programs like CBS' *Saturday Night with Connie Chung* air contrived footage of supposedly real events, they are re-enacting what happens regularly--albeit more subtly--on network news broadcasts" (1990, p. 336). Similarly, Weiss (1989, p. 42) has charged that "for all their fulminating against the tabloids, mainstream newscasters haven't set a noble standard."

These comments may be interpreted at two levels. Most obviously, they point to the existence of forms of fabrication that may be less clearly manipulative than simulations--but are likely to be more pervasive. For one thing, much of what appears in the news has been shaped by the participants themselves to fit the expectations of news organizations (cf. Day, 1991, p. 85). Perhaps more significantly, though, even the most "authentic" material is always and necessarily subject to one form of unavoidable authorial intrusion, namely, selection (in terms of framing, angle of view, choice among competing perspectives, and so forth). The issue of selection will be examined further in the next section of this discussion. For the moment, it should be added that Weiss's and Lee and Solomon's comments about these matters also imply that an over-emphasis on the consequences of staging may have the effect of diverting attention away from the latter practices.

In a broader sense, however, these writers' comments may be read as a challenge to the very distinction between authentic and staged behavior. Lee &

Solomon's point about the blurring of fact and fiction echoes a related view, namely, that both "reality-based" and overtly "fictional" material may be structured according to similar formal principles or ideological premises. This view has been a common feature in criticism of the more traditional forms of reality-based material--for example, documentaries (Linton, 1992) and ethnographic films (Hansen et al., 1991)-and it is not surprising to encounter it in examinations of current practices (Campbell and Freed, 1993; Cavender and Bond-Maupin, 1995; Kozloff, 1992). Nevertheless, from the perspective of this discussion what counts is whether labels such as "documentary" or "fiction" still matter to viewers. Research on this point will be reviewed below in an examination of openly fictional film and television.

The Selectivity of Photographic Representation

As has already been noted, the one form of visual control that no reality-based presentation can avoid is the selection of what to show. In fact, this is essentially a tautological observation, and to a certain extent the issue of visual selection may be too obvious to need much discussion. Still, a brief look at some examples of the considerable consequences of selectivity may be useful. It is also worth noting that what is obviously in principle is not always obvious to viewers in practice.

Given its inevitability, the selectivity of the news camera was the principal focus of an early, paradigmatic study of potential misinformation in TV news (Lang and Lang, 1952). The study dealt with television's presentation of an event related to the Korean War: General Douglas MacArthur's visit to Chicago after he was abruptly dismissed from his command by President Truman. A systematic comparison between the televised images of MacArthur's reception and the reports of trained on-site observers showed that television had selectively emphasized images of enthusiasm on the part of the public, giving an impression of strong support for MacArthur that did not correspond to the direct, on-site reports. This study illustrates that deciding what constitutes misleading selectivity is not always a simple matter. In contrast to the cases of alteration and staging, here there can be no absolute standard of non-intervention. All the same, the pattern observed in the study had definite implications: Since the confrontation between MacArthur and Truman was part of a broader political conflict regarding the conduct of the war, television's role in this incident cannot be dismissed as simply an attempt to keep viewers interested (even if that was the actual motivation for the way the event was covered).

A characteristic contemporary example of the potential consequences of visual selectivity has been given by Larry Gross (1988). Gross' analysis of news images of lesbian and gay marches and political gatherings suggests that television

coverage of such events has tended to feature those participants whose appearance is most likely to draw a negative reaction from hostile viewers. A similar point has been made by Parenti, referring to news photographs of antiwar protests: "Individual demonstrators who convey a kooky appearance will more likely catch the camera's eye than those of more conventional deportment, the purpose of such photographs being not only to highlight the unusual but to delegitimate the protesters, making *them* the issue rather than the thing they are protesting" (1986, p. 224).

Under the heading of selectivity, it may also be appropriate to consider briefly one aspect of the imagery appearing in news reports of the Persian Gulf War. A prominent feature of these reports was the repeated display of pictures of "smart bombs" being guided precisely onto their targets. The pictures may have "created an illusion of remote, bloodless, pushbutton battle in which only military targets were assumed destroyed" (Walker, 1992, p. 84). However, subsequent reports indicate that, "of all bombs dropped on Iraq, only seven percent were so-called smart bombs, and of these at most 70 percent were thought to have hit their intended targets" (Lee and Solomon, 1990, p. xx). Furthermore, it appears that Iraq experienced substantial civilian casualties, especially in Basra (Walker, 1992, pp. 87-88; see also Sifry and Cerf, 1991, p. 336n). In short, the selectiveness of the smart-bomb images may have misled viewers about one of the war's most serious consequences. (Whether public knowledge about this discrepancy would have made much difference at the time is another matter; see Jowett, 1993.)

In all of these examples, then, the potential implications are substantial, but the source of those implications is conceptually simple: pointing the camera in one direction instead of another, picking one video clip out of a number of alternatives. In principle, therefore, alertness to the possibility of this kind of visual misinformation should also be a relatively straightforward matter. This does not mean that viewers should necessarily be expected to display greater alertness in this area than in any of the others we have examined so far. What it does mean, however, is that lack of alertness in this area cannot be attributed to the complexity of the means of manipulation.

THE ILLUSION OF REALITY IN VISUAL FICTION

Analyses of the ideological implications of fictional TV programs and films usually deal with thematic content and plot structure rather than with visual composition or editing. However, in one area of ideological analysis, visual variables have played a central role. This area is directly concerned with viewers' awareness of manipulation; it deals with the visual devices through which viewers are encouraged to overlook the ficticity of films and TV programs and to succumb

to an illusion of reality. Much recent writing in this area reflects the influence of work done in cinema studies in the 1970s. The theoretical formulations that came out of that work have been modified, extended, or attacked in various ways over the years, but they still figure centrally in current scholarship, if only as a counterpoint to subsequent developments. The discussion that follows will take these original formulations as starting points and refer to more recent arguments where appropriate. It can be said at the outset, though, that while these latter arguments have tended to question the potency of the ideological effects posited by the earlier theorists, they have been less likely to challenge the intricacy of those theorists' models of the ideological process.

A common-sense assumption about cinematic realism is that it encourages viewers to accept the messages that movies may contain. This assumption is at the core of a more expansive conception of realism and ideology developed by such writers as Baudry (1975), Heath (1981), Metz (1982), Oudart (1978), and Silverman (1983), among others. In the hands of these writers, the core assumption was extended through a variety of elaborations, whose thrust may be summarized as follows: Mainstream Hollywood cinema is characterized by certain stylistic features that serve to suppress the viewer's awareness of ficticity and artifice; this suppression of awareness occurs in parallel with a lapse into a regressive psychological state, in which the viewer identifies with the screen image, experiencing it as her/his own creation; by virtue of experiencing the movie as if she/he were its author, the viewer comes to accept the ideological premises that shaped the movie as if they were her/his own.

What should one make of these assumptions? To begin with, it is certainly true that in certain respects mainstream movies are typically designed to look "realistic." Most obviously, perhaps, this has to do with such matters as costuming and set design -- he surface appearance of a film or TV program. Hollywood lore contains any number of stories about the lengths to which filmmakers have gone in pursuit of realism in this sense. For example, one of Alfred Hitchcock's former assistants recalls being sent out to study "exactly" how car salesmen were dressed in a certain part of the country, so that Hitchcock could replicate that look in *Psycho* (Rebello, 1990, p. 56; see also Truffaut, 1967, p. 192).

Mainstream cinema can also be considered realistic in another sense. As filmmakers themselves often acknowledge most fictional genres (in both film and television) have traditionally tended to avoid the use of stylistic devices that might draw attention to style at the expense of content. This point was expressed by Ralph Rosenblum, a prominent editor: "Regardless of its extent or style, editing should not impress or call attention to itself. As an audience, we no more want to see the wheels and gears and levers responsible for the effect the film is having on us than we want to set the pencil marks on an author's tint draft or the invisible

wires in a magic show" (Rosenblum and Karen, 1979, p. 296). Once again, the case of *Psycho* provides a useful illustration: In a murder scene that takes place on a staircase. Hitchcock wanted to use an overhead camera angle (pointing straight down) to conceal the face of the killer. But he was concerned that a direct cut to such a relatively unusual angle would be obtrusive. His solution was to have the camera rise in tandem with a character walking up the stairs, thus "naturalizing" the eventual high angle (Truffaut. 1967, p. 208). In other words, the more general aim in this kind of situation is to give the impression that camerawork and editing are simply flowing from the actions and thoughts of characters inside the narrative, instead of being controlled by external intentions.

It is this aspect of cinematic realism that is, the "suppression" of evidence of artifice-that became the principal focus of the theoretical framework outlined above. However, rather than seeing this suppression as a matter of merely occasional significance, tied to instances in which the likelihood that a film might give itself away is particularly high (as in *Psycho*), this theoretical framework has treated the process of suppressing awareness as a central component of movies' effects on viewers. To put it differently, it has been assumed that threats to the illusion of reality are regular features of cinematic structure, not isolated cases. A detailed attempt to derive this assumption from an analysis of Hollywood editing conventions is contained in an influential article by Oudart (1978) and a related piece by Dayan (1974). Oudart's argument deals with the shot/reverse-shot principle of shooting and editing, according to which an off-screen look by a character in one shot is followed by a matching look from a character in the next shot, so that the viewer gets a sense of a continuous interaction. This is probably the most common form of editing in most fictional genres. According to Oudart, a single off-screen look, without the matching look from the next shot, would threaten the illusion of reality. It would alert the viewer to the space outside the movie frame--a space that contains the movie projector, as well as the viewer her/himself. But the viewer's awareness of this space is averted when the off-screen look is provided with a target inside the world of the movie, namely, the character in the matching, reverse-angle shot.

Discussions of this argument have sometimes treated it as an autonomous set of statements about the viewing experience (see Rothman, 1975), but in Oudart's work it was intimately connected to the psychoanalytic assumptions that have constituted another major component of this line of scholarship. The essential element in these assumptions is the idea that the process of movie viewing is analogous to-and, indeed, recapitulates-the infantile experience of gaining a sense of self-mastery through identification with another person (or with a mirror image of the infant's own body). According to this idea, the disruption produced by the off-screen look is analogous to the infant's experience of lack when it becomes

aware of an external, superior source of order. The matching shot's effect in countering the off-screen look recapitulates the infant's internalization of the dictates of the social order.

Clearly this conceptual model does not leave much room for critical or even reflective viewership. In the words of another of the principal architects of this model, when viewers are watching a movie, "whether they know it or not (but they do not), [they] find themselves chained, captured, or captivated" (Baudry, 1975, p. 309). The inflexibility of this view was a major point of disagreement as the media scholarship of the 1980s moved towards a conception of active, resisting viewers (Gaines, 1992). By and large, subsequent scholarship has also discarded the "dizzying array of analogies" through which the model sought to make its psychoanalytic claims (Mayne, 1993, p. 46). The most sustained refutation of those claims comes from Carroll (1988); several writers have turned to cognitive psychology, and to an image of active sense-making, as alternatives to the psychoanalytic conception of the viewing process (for example, Anderson, 1993; Bordwell, 1985; Branigan, 1992).

In fact, however, psychoanalytic analogies are not an essential element of theories about the ideological implications of cinematic realism. The core assumption of these theories-i.e., the notion that a naturalistic visual style makes a movie's ideological premises also seem natural--can stand on its own, without any psychoanalytic underpinnings. This more basic view of stylistic naturalism is expressed succinctly by Roben Ray: "The ideological power of Classic Hollywood's procedure is obvious: under its sponsorship, even the most manufactured narratives came to seem spontaneous and 'real' " (Ray, 1985, p. 55). This kind of view of the relationship between style and ideology has enjoyed much greater staying power than the earlier psychoanalytic formulations. A current version is set forth systematically by Bruce Kawin (1992), in a popular textbook on film theory. Kawin argues that the compositional and editing devices developed by the movie industry are nothing but arbitrary conventions; that moviemakers have nevertheless succeeded in conditioning viewers to overlook this arbitrariness and to respond to movies as if they were natural events; and that this concealment of stylistic authorship serves to conceal the arbitrariness of movies' ideological content (Kawin, 1992, p. 50ff).

Kawin's argument could be strengthened by the observation that the stylistic codes of mainstream fiction films and TV programs are not entirely arbitrary and are often modelled on principles of real-world visual perception (Messaris, 1994). Even in its present form, however, the argument is not very different from what could probably be considered the "common-sense" view of these matters--namely, that stylistic realism makes viewers more susceptible to a movie's effects. Perhaps

because of its commonsensical quality, this view is rarely challenged directly (see Carroll, 1988). Nevertheless, it should not be taken entirely for granted.

Some evidence that could be seen as supporting this view comes from a recent study by Mares (1994). Mares showed viewers movie excerpts and news clips about similar subjects and then asked them to recall which incidents had occurred in which of the two formats. Viewers who mistakenly remembered the fictional material as if it had occurred in the news were more likely to have high scores on a "cultivation index" (derived from Gerbner and Gross's Cultural Indicators project), indicative of agreement with television's perspective on reality (presumed to be relatively monolithic). If these viewers' post-facto confusion between movies and news can be taken as evidence of an analogous confusion between fiction and reality while they were actually watching this material, the results of this study can be read as confirming the common-sense view about the ideological consequences of the illusion of reality. On the other hand, however, it is entirely conceivable that the viewers' misattributions resulted only from faulty memory, not earlier confusion. Furthermore, it is possible that the best way to interpret these results is to reverse the direction of causality: People whose views coincide with television's perspectives on reality may be more likely to attribute those perspectives to the news than to fiction.

A different way of testing the commonsense view of illusionism is to examine one of its corollaries, namely, the idea that a representational style which *violates* the illusion of reality should lead to greater awareness of ideology. This idea's emergence in film scholarship was partly an extension of analogous notions about the theater, particularly the work of Berrolt Brecht (Eisaesser, 1990). In film scholarship, the idea has led to an interest in movies that deliberately call attention to their artificiality by breaking standard conventions and/or by openly showing or referring to the movie-making process (see Hedges, 1991; Stam, 1992). Messaris (1981) studied viewers' reactions to such devices using a film that included scenes about its own production and that violated several editing conventions. Despite these "anti-illusionistic" devices, the general tendency in the viewers' responses was to treat the film in terms of story progression and character motivation, rather than authorial intent.

Doubts about any necessary connection between stylistic anti-illusionism and ideological awareness have also been raised in studies of two fictional genres that routinely deviate from some of the conventions of illusionistic narration. In particular, Jane Feuer (1982) has observed that Hollywood musicals often employ a variety of "self-reflexive" devices (references to show business, to other musicals, to the audience, etc.) without any concomitant departure from a "conservative" social orientation. Mimi White (1992) has argued that self-referentiality in TV situation comedies (for example, Bob Newhart dreaming in

one show of a character he had played on another show) serves to strengthen the affective and intellectual appeal of television fiction, rather than subverting its message.

More generally, then, it seems appropriate to take a skeptical stance towards the conventional equation between stylistic unobtrusiveness and ideological efficacy. However, even if one were to accept this equation uncritically, one might still want to question the centrality it has been accorded in discussions of viewers' confrontations with the screen. As noted earlier, it is only at relatively rare moments (for example, in movies like *Psycho*) that the concealment of artistic devices becomes an active ingredient of mainstream film style. It may be true that ordinary viewers do not ordinarily attend to the structural characteristics of camerawork, editing, etc., but tacitness of message structure is not the same thing as deliberate concealment. Moreover, if it is the apparent realism of movies that is at issue in this line of cinema scholarship, one could also ask why more attention has not been paid to viewers' attitudes toward the physical world on the screen. The achievement of realism in this area is a common, sometimes major, preoccupation in both film and TV production (as in the example from *Psycho* mentioned above). Yet scholarly interest in these matters has usually been slight.

In effect, what has happened here is that the attainment of "literate" viewing has been envisioned as a contest against a hidden foe--even though that foe's active attempts at self-concealment are arguably rare, and despite the presence of a more common alternative antagonist. This way of formulating the viewers' task is similar to conceptions encountered earlier in this article, in connection with advertising and with informational uses of images.

CONCLUSIONS

This article has reviewed theoretical accounts of what viewers are up against in their confrontations with manipulative or misleading images. The review began by summarizing empirical findings on viewers' awareness of camera angle, subjective camera, and associational juxtaposition. All three are frequently found in visual advertising (in fact, the third is probably *the* most common tool of visual persuasion). All three have been found to affect viewers' responses to persuasive images. All three appear to operate outside of the conscious awareness of many viewers—even though all of these devices are based on relatively simple conceptual principles. Nonetheless, much theoretical and critical discussion of visual advertising has painted a picture of manipulative devices that are highly complex or elaborately devious—even though some of these devices may be entirely absent from mass-media advertising.

The second area examined in this review had to do with potentially misleading images in the news media. Recent academic and journalistic criticism in this area has dealt extensively with the alteration of photographs by means of digital imaging technology, and with the use of staging or simulation in TV news. Critics of these practices commonly predict that their widespread use may lead to an erosion of public faith in photographic media. However, a third source of potential visual misinformation--namely, the simple fact that all images are selective--is already an inevitable, but less discussed, feature of any informational use of photographic media.

The article's final section was an overview of theoretical arguments about the relationship in fictional narratives between visual style and ideology. The traditional notion about this relationship is that mainstream movies tend to conceal their artificiality from the viewer, and that this concealment fosters an impression of reality which serves to "naturalize" these movies' ideological premises. In addition to questioning the connections envisioned in this notion, this review suggested that the concealment of artifice may not play as central a role in mainstream movie style as commonly assumed. There may be other, more pervasive sources for viewers' impression of reality.

One of the points of this review has been that much of the scholarly and journalistic literature has tended to focus on relatively complex and elusive forms of visual manipulation, while paying less attention to simpler, less-devious--but also, arguably, much more common--practices. It may be appropriate to end with some speculations about possible consequences of this pattern for viewers, for media practitioners, and for the critics and scholars from whose writings the pattern has emerged.

It could be argued that the critics' emphasis on the more devious forms of visual manipulation or deception may have contributed to a highlighting of public skepticism towards the visual media--a consequence that may be welcomed or deplored, depending on one's own perspective. On the other hand, this critical tendency may also be seen in a rather different light. From the point of view of the producers of mass-media images, the critics' emphasis on the arcane and the recondite may not be entirely unwelcome, if it deflects attention away from certain more commonplace practices. For example, advertisers themselves will occasionally bring up the subject of subliminal advertising, since they can truthfully deny using such techniques (see Ogilvy, 1983, p. 209). More significantly, news organizations' vehement stands against computer alterations of images may convey an air of objectivity that might be less easy to justify if the critical focus were to shift to other news practices (cf. Lee and Solomon, 1990, p. 336).

It may also be pertinent to point out that the critical emphases summarized above have coincided, in recent years, with a tendency among media scholars to conceptualize audiences as active and resisting. Some research conducted in this spirit has drawn attention to audience behavior in which the element of resistance is indeed clear (for example, readers who sent copies of sexist ads to *Ms*. magazine's "No Comment" section; see Steiner, 1988). It seems fair to say, however, that in other cases the construction of the resisting viewer owes much to the researcher's own predispositions. Judith Mayne observes a strong tendency toward constituting a viewer who is always resisting, always struggling, always seemingly just on the verge of becoming the embodiment of the researcher's own political ideal" (Mayne, 1993, p. 61). In other words, viewers often fail to attain the researcher's own ideal, despite having been conceptualized as active.

This aspect of current media scholarship seems particularly relevant to the conceptions of visual literacy examined in this review. More specifically, the emphasis on the more baroque forms of visual manipulation can be seen as a way of rationalizing the failure of supposedly resisting viewers to attain the insights of the researcher. Conceptualizing visual literacy as an almost impossible challenge may serve to uphold the supposition that viewers would share the researcher's perspective if only they could.

References

Anderson, J.D. (1993, February 13). A cognitive approach to continuity. Paper presented at the Society for Cinema Studies conference, New Orleans.

Antin, T. (1993). Great print advertising: Creative approaches, strategies, and tactics. New York: Wiley.

Arnheim, R. (1988). *The power of the center: A study of composition in the visual arts.* University of California Press.

Bang, M. (1991). Picture this: Perception and composition. Boston: Bulfinch Press.

Baudry, J. L. (1975). Ideological effects of the basic cinematographic apparatus. *Film Quarterly*, 28(2): 39-47.

Bordwell, D. (1985). Narration in the fiction film: Madison: University of Wisconsin Press.

Bordwell, D., Staiger, J., & Thompson, K. (1985). *The classical Hollywood cinema: Film style and mode of production to 1960*. New York: Columbia University Press.

Bordwell, D. & Thompson, K. (1986). Film art: An introduction (2nd ed.). New York: Knopf.

Bossen, H. (1985). Zone V: Photojournalism, ethics, and the electronic age. *Studies in Visual Communication*, 11(3): 22-32.

Braden, R., Baca, J. C., & Beauchamp, D. (Eds.). (1993). *Art, science and visual literacy: Selected proceedings of the 24th convention of the International Visual Literacy Association*. Blacksburg, VA: International Visual Literacy Association.

Brand, S., Kelly, K., & Kinney, J. (1985, July). Digital retouching: The end of photography as evidence of anything. *Whole Earth Review*, pp. 42-49.

Branigan, E. (1992). Narrative comprehension and film. New York: Routledge.

Brown, J. (1991). *Television critical viewing skills education: Major literacy projects in the United States and selected countries.* Hillsdale, NJ: Erlbaum.

Campbell, R. & Freed, R. (1993). "We know it when we see it": Postmodernism and television. *Television Quarterly*, 26(3): 75-87.

Carroll, J. M. (1980). Toward a structural psychology of cinema. The Hague: Mouton.

Carroll, N. (1988). *Mystifying movies: Fads and fallacies in contemporary film theory*. New York: Columbia University Press.

Carter, B. (1993, February 11). G. M. suspends ads on NBC news despite apology for truck report. *The New York Times*, pp. 1A, 21A.

Cavender, G. & Bond-Maupin, L. (1993). Fear and loathing on reality television: An analysis of "America's Most Wanted" and "Unsolved Mysteries." *Sociological Inquiry*, 63(3): 305-317.

Christians, C. G., Rotzoll, K. B., & Fackler, M. (1991). *Media ethics: Cases and moral reasoning* (3rd ed.). New York: Longman.

Cialdini, R. B. (1993). Influence: The psychology of persuasion. New York: Quill.

Cook, G. (1992). The discourse of advertising. New York: Routledge.

Craig, R. L. (1992). Advertising as visual communication. *Communication*, 13(3): 165-179.

Curtis, J. (1989). *Mind's eye, mind's truth: FSA photography reconsidered*. Philadelphia: Temple University Press.

Curtiss, D. (1987). Introduction to visual literacy. Englewood Cliffs, NJ: Prentice-Hall.

Day, L. A. (1991). Ethics in media communications: Cases and controversies. Belmont, CA: Wadsworth.

Dayan, D. (1974). The tutor-code of classical cinema. Film Quarterly, 28(1): 22-31.

Debes, J. L. (1970). The loom of visual literacy. In C. M. Williams & J. L. Debes (Eds.), *Proceedings, first national conference on visual literacy* (pp. 1-16). New York: Pitman.

Dondis, D. A. (1973). A primer of visual literacy. Cambridge, MA: The MIT Press.

Dyer, G. (1989). Advertising as communication. New York: Routledge.

Elsaesser, T. (1990). From anti-illusionism to hyper-realism: Bertolt Brecht and contemporary film. In P. Kleber & C. Visser (Eds.), *Re-interpreting Brecht: His influence on contemporary drama and film* (pp. 170-185). New York: Cambridge University Press.

Espy, H. (1983, February 26). Affective meanings of basic shapes. Guest lecture, Annenberg School for Communication, Philadelphia.

Ewen, S. (1988). All consuming images: The politics of style in contemporary culture. New York: Basic Books.

Feuer, J. (1982). The Hollywood musical. Bloomington: Indiana University Press.

Fischer, J. L. (1961). Art styles as cultural cognitive maps. American Anthropologist, 63(1): 79-93.

Foss, S. K. & Kanengieter, M. R. (1991, November 2). Expansion of communication fundamentals courses to include visual literacy. Paper presented at the Speech Communication Association conference, Atlanta.

Freund, G. (1980). Photography and society. Boston: Godine.

Gaines, J. M. (1992). Introduction: The family melodrama of classical narrative cinema. In J. M. Gaines (Ed.), *Classical Hollywood narrative: The paradigm wars* (pp. 1-8). Durham, NC: Duke University Press.

Galan, L. (1986, October). The use of subjective point of view in persuasive communication. Paper presented at the Culture and Communication conference, Philadelphia.

Geis, M. L. (1982). The language of television advertising. New York: Academic Press.

Gomery, D. (1993). As the dial turns. Wilson Quarterly, 17(4): 41-46.

Griffin, M. (1992). Looking at TV news: Strategies for research. Communication, 13, 121-141.

Gross, L. (1985). Life vs. art: The interpretation of visual narratives. *Studies in Visual Communication*, 11 (4): 2-11.

Gross, L. (1988). The ethics of (mis)representation. In L. Gross, J. S. Katz, &J. Ruby (Eds.), *Image ethics: The moral rights of subjects in photographs, film, and television* (pp. 188-202). New York: Oxford University Press.

Grunberg, A. (1990). Crisis of the real: Writings on photography, 1974-1989. New York: Aperture.

Haineault, D.-L. & Roy, J.-Y. (1993). *Unconscious for sale: Advertising, psychoanalysis, and the public.* Minneapolis: University of Minnesota Press.

Hansen, C., Needham, C., & Nichols, B. (1991). Pornography, ethnography, and the discourse of power. In B. Nichols, *Representing reality: Issues and concepts in documentary* (pp. 201-228). Bloomington: Indiana University Press.

Harris, C. R. (1991). Digitalization and manipulation of news photographs. *Journal of mass media ethics*, 6(3): 164-174.

Heath, S. (1981). Questions of cinema. Bloomington: Indiana University Press.

Hedges, I. (1991). *Breaking the frame: Film language and the experience of limits*. Bloomington: Indiana University Press.

Huston, A., Greer, D., Wright, J. C., Welch, R., & Ross, R. (1984). Children's comprehension of televised formal features with masculine and feminine connotations. *Developmental Psychology*, 20(4): 707-716.

Ind, N. (1993). *Great advertising campaigns: Goals and accomplishments*. Lincolnwood, IL: NTC Business Books.

Jacknis, I. (1984). Franz Boas and photography. Studies in Visual Communication, 10(1): 2-60.

Jamieson, K. (1992). *Dirty politics: Deception, distraction, and democracy*. New York: Oxford University Press.

Jaubert, A. (1989). *Making people disappear: An amazing chronicle of photographic deception*. Washington: Pergamon-Brassey's.

Jowett, G. S. (1993). Propaganda and the Gulf war. *Critical Studies in Mass Communication*, 10(3): 287-300.

Kawin, B. (1992). How movies work. Berkeley: University of California Press.

Key, W. B. (1973). Subliminal seduction: Ad media's manipulation of a not so innocent America. New York: Signet.

Key, W. B. (1976). Media sexploitation. New York: Signet.

Key, W. B. (1981). The clam-plate orgy and other subliminal techniques for manipulating your behavior. New York: Signet.

Key, W. B. (1989). *The age of manipulation: The con in confidence, the sin in sincere*. Lanham, MD: Madison Books.

Kozloff, S. (1992). Narrative theory and television. In R. C. Allen (Ed.), *Channels of discourse*, *reassembled: Television and contemporary criticism* (pp. 67-100). Chapel Hill: The University of North Carolina Press.

Kubey, R. & Ruben, B. (Eds.). (In press). *Literacy in the information age*. New Brunswick, NJ: Transaction.

Lang, K. & Lang, G. E. (1952). The unique perspective of television and its effect: A pilot study. In W. Schramm & D. F. Roberts (Eds.), *The process and effects of mass communication* (rev. ed.) (pp. 169-188). Urbana: University of Illinois Press, pp. 169-188.

Lasica, J. D: (1989). Photographs that lie. Washington Journalism Review, 11(5): 22-25.

Lee, M.A. & Solomon, N. (1990). Unreliable sources: A guide to detecting bias in news media. Secaucus, NJ: Carol Publishing Group.

Lewis, C. (1991). Images and ideology: A theoretical framework for critical research in visual literacy. *Journal of Visual Literacy*, 11(2): 9-34.

Linn, T. (1991). Staging in television news. *Journal of Mass Media Ethics*, 6(1): 47-54.

Linton, J.M. (1992). Documentary film research's unrealized potential in the communication field. *Communication*, *13*, 85-93.

Lyman, C. M. (1982). *The vanishing race and other illusions: Photographs of Indians by Edward S. Curtis.* New York: Pantheon.

Mandell, L.M. & Shaw, D. L. (1973). Judging people in the news-unconsciously: Effect of camera angle and bodily activity. *Journal of Broadcasting*, 17(3): 353-362.

Mares M.-L. (1994). *Life-span changes in formation of social reality beliefs: Effects of memory*. Doctoral dissertation. Madison: University of Wisconsin.

Martin, E. (1991). On photographic manipulation. *Journal of Mass Media Ethics*, 6(3): 156-163.

Mayne, J. (1993): Cinema and spectatorship. New York: Routledge.

McGinnis, J. (1969). The selling of the president. New York: Penguin.

Messaris, P. (1981). The film audience's awareness of the production process. *Journal of the University of Film Association*, 33(4): 53-56.

Messaris, P. (1994). Visual "literacy": Image, mind, and reality. Boulder, CO: Westview Press.

Messaris, P. & Nielsen, K. (1989, August 12). Viewers' interpretations of associational montage: The influence of visual "literacy" and educational background. Paper presented at the Association for Education in Journalism and Mass. Communication conference, Washington, DC.

Metallinos, N. (1992). Visual literacy: Suggested theories for the study of television picture *Journal of Visual Literacy*, 12(1): 57-72.

Metz, C. (1974). Film language: A semiotics of the cinema. New York: Oxford University Press.

Metz, C. (1982). The imaginary signifier: Psychoanalysis and cinema. Bloomington: Indiana Press.

Meyrowitz, J. (1986). Television and interpersonal behavior: Codes of perception and response. In G. Gumpert & R. Cathcart (Eds.), *Inter/Media: Interpersonal Communication in a Media World* (3rd ed.) (pp. 253-272). New York: Oxford University Press.

Mitchell, A. A. (1986). The effect of verbal and visual components of advertisements on brand attitudes and attitude toward the advertisement. *Journal of Consumer Research*, 13(1):12-24

Mitchell, A. A. & Olson, J. C. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude? *Journal of Marketing Research*, 18(3): 318-332.

Mitchell, G. (1992). The campaign of the century: Upton Sinclair's race for governor of California and the birth of media politics. New York: Random House.

Mitchell, W. J. (1992). The reconfigured eye: Visual truth in the post-photographic era. MA: MIT Press.

Morreale, J. (1991). *A new beginning: A textual frame analysis of the political campaign film:* Albany State University of New York Press.

Ogilvy, D. (1983). Ogilvy on advertising. New York: Vintage.

Olson, W. (1993, June 21). It didn't start with *Dateline NBC. National Review*, pp. 41-45.

Oudart, J. P. (1978). Cinema and suture. *Screen*, 18(4): 35-47.

Packard, V. (1957). The hidden persuaders. New York: McKay Books.

Parenti, M. (1986). Inventing reality: The politics of the mass media. New York: St. Martin's Press.

Pratkanis, A. & Aronson, E. (1992). *Age of propaganda: The everyday use and abuse of persuasion*. New York: Freeman.

Prince, S. (1990). Are there bolsheviks in your breakfast cereal? In S. Thomas & W. A. Evans (Eds.), *Communication and culture: Language, performance, technology, and media* (pp. 180-184). Norwood, NJ: Ablex.

Rachman, S. (1966). Sexual fetishism: An experimental analogue. *Psychological Record*, 16(3): 293-296.

Rachman, S. & Hodgson, R. J. (1968). Experimentally-induced "sexual fetishism": Replication and development. *Psychological Record*, *18*(1): 25-27.

Randazzo, S. (1993). *Mythmaking on Madison avenue: How advertisers apply the power of myth and symbolism to create leadership brands.* Chicago, IL: Probus.

Ray, R. (1985). A certain tendency of the Hollywood cinema, 1930-1980. Princeton, NJ: Princeton University Press.

Reaves, S. (1991). Digital alteration of photographs in consumer magazines. *Journal of Mass Media Ethics*, 6(3): 175-181.

Rebello, S. (1990). Alfred Hitchcock and the making of Psycho. New York: Dembner.

Ritchin, F. (1990). In our own image: The coming revolution in photography. New York: Aperture.

Rosenblum, R., & Karen, R. (1979). When the shooting stops ... the cutting begins: A .film editor's story. New York: Penguin.

Rothman, W. (1975). Against "The system of the suture." Film Quarterly, 29(1): 45-50.

Saint-Martin, F. (1990). Semiotics of visual language. Bloomington: Indiana University Press.

Saltzman, J. (1989, November). TV news theater. USA Today: Magazine of the American Scene, p. 89.

Scherer, J. C. (1975). You can't believe your eyes: Inaccuracies in photographs of North American Indians. *Studies in the Anthropology of Visual Communication*, 2(2): 67-79.

Schorr, D. (1989). Fiction and news. *Television Quarterly*, 26(2): 47-48.

Schudson, M. (1984). Advertising, the uneasy persuasion: Its dubious impact on American society. New York: Basic Books.

Sifry, M. L. & Cerf, C. (Eds.). (1991). *The Gulf war reader: History, documents, opinions*. New York: Times Books.

Silverman, K. (1983). The subject of semiotics. New York: Oxford University Press.

Slattery, K. & Tiedge, J. T. (1992). The effect of labeling staged video on the credibility of TV news stories *Journal of Broadcasting & Electronic Media*, *36*(3): 279-286.

Snyder, J. (1980). Picturing vision. Critical Inquiry, 6(3): 499-526.

Spottiswoode, R. (1950). A grammar of the film: An analysis of film technique. Berkeley: University of California Press.

Stam, R. (1992). *Reflexivity in film and literature: From Don Quixote to Jean-Luc Godard.* New York: Columbia University Press.

Steiner, L. (1988). Oppositional decoding as an act of resistance. *Critical Studies in Mass Communication*, 5(1): 1-15.

Stout, R. G. (1984). Pavlov founded advertising because he showed that imagery could be transferred. *Television/Radio Age*, *31*(14): 160.

Truffaut, F. (1967). Hitchcock. New York: Simon & Schuster.

Walker, P. (1992). The myth of surgical bombing in the Gulf war. In R. Clark et al., *War crimes* (pp. 83-89). Washington, D.C.: Maisonneuve Press.

Weiss, P. (1989, May-June). Bad rap for TV tabs. Columbia Journalism Review, 38(1): 38-42.

Welch, R. L., Huston-Stein, A., Wright, J. C., & Plehal, R. (1979). Subtle sex-role cues in children's commercials. *Journal of Communication*, 29(3): 202-209.

Wernick, A. (1991). *Promotional culture: Advertising, ideology and symbolic expression*. Newbury Park, CA: Sage Publications.

White, M. (1992). Ideological analysis and television. In R. C. Allen (Ed.), *Channels of discourse*, *reassembled: Television and contemporary criticism* (pp. 161-202). Chapel Hill: University of North Carolina Press.

Williamson, J. (1978). Decoding advertisements. London: Marion Boyars.

Wolf, H. (1988). Visual thinking: Methods for making images memorable. New York: Rizzoli.

Zettl, H. (1990). Sight sound motion: Applied media aesthetics (2nd ed.). Belmont, CA: Wadsworth.

Zoglin, R. (1989, October 9). TV news goes Hollywood. Time, pp. 98, 103.

Zuckerman, C. I. (1990). Rugged cigarettes and sexy soap: Brand images and the acquisition of meaning through associational juxtaposition of visual imagery. M.A. thesis. Philadelphia: University of Pennsylvania

Zurawik, D. & Stoehr, C. (1993, April). Money changes everything. *American Journalism Review*, 15(3): 27-31