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ABSTRACT
        Research has shown that producers and consumers of
television programs are still uncertain about the nature of the
"grammar" or "lexicon" that makes up the language of television.
Although attempts have been made in experimental television ("video
art"), systematic studies on the idiosyncratic nature, unique
features, and specific components of the medium as a separate art
form are still scarce. A review of these idiosyncracies, features,
and components leads to the conclusion that the delay in the
development of a television language can be attributed mainly to the
lack of understanding of the medium's ultimate role, its unique
characteristics, and its specific elements by those involved with
television production and study. The development of television's
language depends greatly on wider experimentation and research that
acknowledges research already done in other disciplines.
(Author/FL)

DEVELOPMENT AND ANALYSIS OF TELEVISION GRAMMAR:

AN OVERALL VIEW

by

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The switch from verbal communication dominance to visual communication dominance mandates a decisive and thorough study of the contemporary media of visual communication - photography, film, television, computer graphics, etc. As the introduction of print created the need for universal verbal literacy, so the invention of the camera has created the need for the development of universal visual literacy (Dondis, 1973, p. IV). This need was also expressed more than twenty years ago by Carpenter and McLuhan (1960, p. XII) who warned us that "without an understanding of media grammars, we cannot hope to achieve a contemporary awareness of the world in which we live".

Some of the prerequisites for better understanding the grammars of the media are (1) the study of the idiosyncratic nature of the medium itself, (2) the identification of the unique features of the medium which distinguish it from other media, and (3) experimentation with the specific components which comprise each medium. In all these areas, empirical research is drastically lacking (Metallinos, 1979).

The need to identify the particular grammar of the television medium was stressed also by the profound works of McLuhan (1964, pp. 36-45), Tarroni (1979, pp. 437-461), Antin (1979, pp. 495-516), Price (1972, pp. 91-98), Millerson (1972, pp. 198-202) and Zettl (1972, pp. 249-269), to mention only a few. Paradoxically, producers and consumers of television programs are still uncertain as to what the "grammar", the "lexicon" is, which makes up the language of television. There is a plethora of programs, practices and experimentation in

television with the monolythic view that it is a medium of mass communication with programming based on mass consumption. These programs, practices and experimentations could have contributed towards the development of television's grammar. Yet they overlooked the artistic potentials of television. Consequently, television's grammatic rules for artistic synthesis and expression are far from being employed.

TELEVISION'S IDIOSYNCRACIES

The body of literature that deals with the idiosyncratic nature of television is multifaceted. It is enriched by television historians (Head, 1956, Hilliard, 1964, Sterling and Kittross, 1979), sociologists of mass media (McQuail, 1969, Skornia, 1965, Wright, 1969), analysts and critics of mass media (Schramm and Roberts, 1971, Hiebert et al, 1979, Barnouw, 1956) and producers and constructors of television programs (Shanks, 1976, Schneider and Korot, 1976, Price, 1972). For the most part, these diversified studies compare television with other media as they try to pinpoint the medium's character. Although it was not clear in the beginning when television emerged, existing studies on the nature of television suggest that television should not be confused with video, radio, film or theatre. A brief review of the differences between television and these media is necessary for the understanding of the idiosyncratic nature of television.

Television Vs. Video

Television is thought of as the conventional broadcast industry medium which provides a variety of programs for mass consumption. The socio-economic factors which were discussed

during the early years of television, have shaped this attitude towards television. Consequently, when we talk television, we think of a commercial broadcasting medium whose goals are to inform, entertain and educate the masses. Viewers depend on television to fulfill all their needs. Video, on the other hand, is thought of as the "...process of expression that is instantaneous, electronic, and replayable on one or more screens, through images and sound transforming time into experience and altering the habitual way the audience has of perceiving" (Price, 1972, p. 4). The comparison of the products the two media produce, and the goals they try to achieve underline the idiosyncracies of television and video. These differences must be understood because they constitute the grammar and the syntactic rules of two different media, regardless of their common engineering structure. As Price (1972, p. 9) puts it: "As a medium television is too shy, too nervous, too content with the status quo, to risk being entirely itself. So conventional TV could be video, but it prefers, in general, to look like late-night movies."

Television Vs. Radio

When the powerful American Radio networks took over television after World War II, the nature of television was falsified to such an extent that the establishment of television's grammar is still being effected. As Antin (1979, pp. 496-497) so aptly states:

> Since the main potential broadcasters, the powerful radio networks, were already deeply involved with the electronics industry through complex ownership affiliation, and since they also constituted the single largest potential customer for the electronic components of television, the components were developed entirely for their convenience and profit.

The radio network structure which was adopted by television in its early stages, also effected the television programming formats which had devastating consequences on the development of television. Practically all popular radio network programs were transferred directly to television during the early years of American television (Summers and Summers, 1966, p. 78). The need for a great amount of programs to satisfy the enormous programming appetite of early network television resulted in repetitive formats and stereotyping which has come down to us (Head, 1972, p. 208). These developmental factors have obscured the real nature of television as a visual, kinetic and auditory medium. The triade of sights, motions, and sounds, harmonically integrated into pictures is what distinguishes television from radio. Radio is sound. As analysts of television's nature, we cannot afford to overlook this factor.

Television Vs. Film

There is a great deal of speculation recorded on the differences between television and film in terms of their idiosyncratic nature. Some of these reports stress the obvious functional differences (Murray, 1975, pp. 24-32), some stress their mechanical-physical differences (Millerson, 1975, pp. 196-202, Malik, 1980), and others underline their aesthetic or compositional differences (Zettl, 1979, Toogood, 1978). One of the functional differences between television and film as established public media is the fact that we watch television privately, at home, whereas we go to the theatre, a public place, to see a film with others. The functional conditions under which the media operate determine the quality of the content of the shows. The physical or mechanical differences between film and television are to be found in

the way the two media construct their sights and sounds. The
small TV screen dictates different shooting approaches which,
in turn, requires appropriate cameras, lights, etc. The treatment
of subjects and exploration of characters for the small television
screen must be approached differently from the big film screen.
Among the aesthetic or compositional differences between live
television and film is the immediacy, the spontaneity, the
intimacy and the simultaneity that characterizes television.
Additionally, the need for close-ups, due primarily to the small
size of the television screen, has caused exploration and develop-
ment in television production techniques pertinent to the
idiosyncratic nature of the medium. In discussing the various
idiosyncracies of television compared to those of film, Zettl
(1978, pp. 3-4) states that:

> Television, it turns out, does not exist as frozen snapshots
> of events (as does film, for example) but as a continuous
> scanning process that exists--lives--as a process. While
> the basic unit of film, the frame, exists as a fairly
> precise and permanent record of the past, the basic unit
> of television is a fleeting image, a continually decaying
> and regenerating mosaic, whether the image is created by a
> live camera or videotape.

Television vs. Theatre

The idea that certain themes, topics, events or subjects go
better with the appropriate media is still overlooked by television
programming directors and producers. As long as television
reviewers fail to inform viewers about the differences between
an "adaptation" of a novel, "modification" of an historical event,
or a "reenactment" of an event, the viewers (the general television
public) will go on believing that television can do everything.
These key words "adaptation," "modification," "reenactment," should

exemplify and prologue the use of themes and events created by one medium and used by another. The subject selection and the subject's specific treatment differ between television and theatre in terms of staging, framing and image treatment techniques. For example, anger in a dramatic scene can be expressed by an actor's walk across the stage while on the small television screen such anger can be achieved with a cut to an extreme close-up of the actor's face at the moment of the reaction. The physical motion of the entire body on stage is replaced with an implied motion, with a closer look at the person's emotion on the television screen. It is in this regard that the two media differ. When we overlook these differences, we are misusing the media.

In summary, when we begin to identify and closely examine the idiosyncracies that characterize the medium of television, we can then build the syntactic rules that must be applied when we want to create programs with artistic merit and maximum communicative effect.

TELEVISION'S DISTINCTIVE FEATURES

The attempts made by television observers, students and researchers, to construct its grammar and identify its own language are admirable. Understandably they are not all successful, and foremost, the bulk of them are premature, incohessive, and consequently, ungeneralizable. Millerson (1975, pp. 196-202) distinguishes television from other media in terms of "comfort and informality of viewing," "immediacy," "intimacy," "small size," "treatment of space," "utilization of time," "Distance of viewing," etc. Toogood (1978, p. 16) underlines television's

own features in terms of "intimacy," "intensity," "involvement," "viewer's subjectivity," "viewer emotional rather than physical impact with the action on the screen." Zettl (1978) argues quite convincingly that what makes television unique is its ability to function on a multiple level. According to Zettl (1978, p. 6):

> There are basically three principle functions television can perform: (1) it can look at an event, (2) it can look into an event, and (3) it can create an event. Let me hasten to add that often these three functions overlap at least to some degree.

Neither the producers nor the consumers of television are aware of which approach is most appropriate for each particular function, and this is what causes problems in establishing television's grammar. This flexibility of television to either observe an event ("look at"), translate an event ("look into"), or metamorphosize an event ("create") has caused its downfall, at least in its commercial use. For years it has been heavily used as an observer, simply recording other events, or as a translator, plainly carrying the action. It has only recently been used to actively explore its own instruments, to utilize its own materials and adopt its own techniques. In short, television has not always been used metamorphically.

Television's ability to instantaneously play-back has occasionally produced outstanding results in dramatic structure and viewer involvement in an event. Already, in the syntax of television sports, the instant replay - particularly of the same scene from different camera angles - has gained wide recognition and acceptance. TV sports viewers are able to "get into" the

game and see more detail than if they were actually there. Coupled with "slow motion," yet another unique feature of television, play-back has separated television from other media.

In discussing the possibilities and limitations of television as an art form, Tarroni (1979, p. 449) stresses some key characteristics of television as follows:

> The small size of the screen, the absence of any subsequent editing, the immediate and spontaneous nature of the communication, the need to develop the story or drama by concentrating it, so to speak, in the faces of the leading characters and entrusting it to their movements, are, in short, the limitations within which the television author must operate in performing his work.

Empirical studies on the various distinctive features of television are now emerging from such academic disciplines as developmental psychology (Salomon, 1974, 1978, 1979), cognitive psychology (Winn, 1982), neurology (Bobby, 1978), perceptual psychology (Hochberg, 1978), neurophysiology (Malik, 1978, Crown, 1977), etc. Their findings focus more directly on the precise ways by which television affects viewers. Undoubtedly, the sound conclusions drawn from these studies which encompass new, scientific and diversified data will help the development of television's own grammar (Metallinos, 1979).

TELEVISION'S SPECIFIC COMPONENTS

Specific components, hardware, pertinent only to the medium of television, are still emerging. They are (1) lighting (external and internal), (2) use and application of color, (3) cameras and lenses, (4) the switcher with additional editing and recording devices, (5) audio components, and (6) satellites.

The material used to construct the television picture is light. The picture is an electronic creation of dots which is broken down and stored magnetically on mylar tape. Through the manipulation of the two major light sources, the lighting that strikes the camera (external), and the lighting that produces the image (internal), we can achieve certain moods and create specific visual effects unique to the medium of television. For example, by properly utilizing external lighting, the viewer can learn at what time of day the action takes place, or the location of the action. High-key lighting provides day time action and low-key lighting could be used to indicate a night time scene. On the other hand, by utilizing the internal lighting and manipulating the electron beams, we can achieve such unique visual effects as "reversed images," "debeaming," "electronic wipes," "keying," "matting," "chromakeying," and "video feedback" (Zettl, 1973, pp. 47-51). While film deals mostly with external lighting, television's use of the above internal lighting techniques has a special advantage over film. The importance of these differences in the development of television's grammar is underlined by Zettl (1978, p. 4) as follows:

> A closer examination of the difference between external and internal lighting will reveal that while external lighting helps us to manipulate outer space and time, internal lighting can change the inner structure of things. Because internal lighting reveals structural changes (by influencing the electronic image intrinsically), a structural metamorphosis is taking place. Internal lighting no longer reflects external impressions, but can, if used properly, reveal internal reality.

Along with lighting, color is also a unique component of
the medium of television emerging as an informational or an
aesthetic factor. Color television has brought the world closer
to the viewer. It has added a new visual dimension to the
television picture which is now comparable to that of film,
and the development of the High Definition TV System (Crook,
1982, p.5), already in its experimental stage in Japan, will
enhance television's grammar considerably.

Television cameras and lenses, aided by their supportive
equipment (such as special cranes, dollys, zoom mechanisms,
filters, reflective mirrors, etc.) have specialized television
production enormously. Not only do the cameras offer better
video quality, but their mechanical flexibilities aid in the
framing of pictures and the recording of special events.
Analysing the uniqueness of the color TV camera, in terms of
its aesthetic potential (Wurtzel, 1979, p.26) recognizes four
distinctive components of the TV camera, such as: (1) The Optic
System, which splits the reflected light into three primary
colors, (2) Chrominance Channels which transform light into
electrical signals, (3) Luminance Channels which provide
brightness information and (4) The Encoder Processor which gives
color and brightness information for transmission through the
system. The sophisticated electronics of the TV cameras
distinguish them from those of the film. Small color television
cameras carried by specially built small trucks for remote
telecasts have caused a real revolution in Electronic News
Gathering (ENG). The low-light level (under which most modern

small format, portable, television cameras can operate) has
enabled television to record live events as never before
possible. The new television cameras have brought new dimensions
to the development of the medium.

The most generic component of television is the switcher.
The technical sophistication of their apparatus has reached
enormous heights, particularly with the recent development of
the "digital" and "computerized" switchers. The television
switcher is the selector and synthesizer of the visual inputs
available to the television director. Its importance to the
television program, both mechanically and aesthetically is
paramount. It is the switcher that allows the presentation
of live, on-the-air, visual messages that occur simultaneously
in different places, providing a global view of the world.

This extraordinary capability of television has been noted
and studied by video physiologists (Malik, 1978, pp. 9-13) and
television aestheticians (Zettl, 1978, pp. 3-8). This unique
component of the television medium which allows the instantaneous
bridging of the past, future and present is seen by Malik (1978,
p. 9) as an information chain in which "Each part of the video
event (the program itself, the room in which it is perceived,
and the person(s) perceiving it) can contain parts of the final
information. And if any part of the information chain is altered,
the information itself is changed."

Zettl (1978, pp. 6-8) has explained television's uniqueness
in terms of correlations between "existential media factors"
(such as light, camera, switcher, sound), and "experimental
media factors" (such as time, motion and sound, and sight).

In Zettl's (1978, p. 6) words: "We are now at a point where we
can correlate these existential media factors with the more
prevalent experiential phenomena, such as the instantaneousness
and irrevocability of the moment, the complexity of the moment,
and the multiplicity of viewpoint."

Major newscasts, special events, sports, eye witness reports
and world-wide crises are prime examples of television's
uniqueness in dealing with the instantaneousness and complexity
of the moment, and the multiplicity cf the viewpoint. Television's
new computerized electronic editing machines, the video recording
apparatus, and the digital signals are additional components
that enhance the lexicon and compose the language of the television
medium (Dyne and Schreiber, 1981,pp. 1-32).

Television's sound is equally important as the image. Yet,
little attention has been devoted to this aspect. It is only
recently that the use of sound in television has caught the
attention of producer/directors and researchers of the medium.
The uniqueness of television sound as a compositional factor
in the establishment of television's grammar was recognized by
Millerson (1979, pp. 319-327), Zettl (1973, pp. 327-374),
Malik (1978, p. 12), and Nevitt (1980/81, pp. 9-41). For
Millerson (1975, p. 320), television sound provides balance,
rhythm and movement for the moving image, and is the catalyst
to the aural-visual relationship which comprises the television
language. Zettl (1973, p. 329) suggests that sound is an
intricate part of television because of its communicative and
informational ability, its ability to supply emotional depth,

its ability to facilitate psychological closure, and its
ability to provide rhythmic structure to events and scenes.
Above all, sounds underline the nature of sights and vice
versa. Malik (1978, p. 12) underlines three important roles
of television sound as follows:

> (1) It supports, explains and narrates the picture; (2) It
> creates the mood and climax, allowing in the same time for
> the story to flow and progress; (3) It carries indirectional
> information which otherwise could not be pronounced by the
> image itself.

Nevitt (1980/81, pp. 29-31) provides a detailed list in
which he compares spatial and acoustic space structures. For
example, whereas visual space is fragmenting, acoustic space is
holistic; or whereas visual space is diachronic, acoustic space
is synchronic, etc. The advent of stereophonic television sound
will add new dimensions, both communicatively and aesthetically.
The television grammar will be greatly advanced with this new
component.

An additional component of television, unique for the struc-
ture of the medium's own syntax, is the new satellite technology.
Among the advantages offered by satellites are better tele-
communication among nations, teleconferences among businesses
and professionals, and global broadcasting of news and other
events. As Wold (1982, p. 23) points out: "These two factors -
the relative economy of satellite transmission as compared with
telephone landlines, and the distance-insensitive cost of
satellite transmission - have turned once blue-sky communications
ideas into exciting and cost-efficient communications opportunities."

While television's observers, critics and explorers constantly

discover new idiosyncracies, new features and new hardware, empirical researchers of the medium consistantly ignore them. Empirical research on the components of the television medium, for example, is minimal, almost non-existant (Metallinos, 1980). Formative research in television production (Coldevin, 1980), biometric research on television's visual and auditory processes (Metallinos, 1979), and neurophysiological research on television (Malik, 1978) are also limited. We have failed to realize that overlooking such advanced research causes drastic delays in the development of television's grammar. We need to learn more, for example, about the hypnotic effects of the television picture on viewers (Crwon, 1977), or how the asymmetrical placement of visual elements within the visual field influence the total picture perception of young and adult viewers (Metallinos, 1981). Without this knowledge, which only advanced research can provide, our efforts to develop a cohessive language of television will be fruitless.

CONCLUSIONS

In this study, an attempt was made to provide an over-all view of the development of the grammar of television. Briefly analyzed and discussed were the major syntactic elements of television in terms of (1) television's idiosyncratic nature, (2) its unique features and (3) its specific components.

An examination of television's natural elements revealed that major delays in the development of television's grammar were due to the false notion that it was comparable, if not equal, to video, radio, film, and theatre, whereas research indicates the opposite.

The discussion on the unique features of television brought to focus the following points. First, among the distinctive features of television is its flexibility to observe, to translate or, better yet, to metamorphosize and create events. Second, its spontaneity, intimacy, immediacy, intensity, instant replay, slow motion, small size and viewing conditions all are unique.

The analysis of television's own components, the hardware that composes the medium, indicates that (1) television has its own instruments (cameras, lights, switcher, audio), (2) it utilizes its own materials (lights), and (3) employs its own techniques (chromakeys, switching or editing, etc.), in order to produce the television picture. The study of these components will help to develop television's grammar.

This over-all view of the development of television's grammar underlined the desparate need for further advanced research (formative, biometric and neurophysiological) in all aspects of television, out particularly in regard to the specific elements that make television a unique medium. The scientific varification of the theories of television's nature, its features and its components are warrented.

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