TELEVISION TIME

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ABSTRACT

This study is an investigation of formal structures in popular North American broadcast television. It is an examination of the television text as constructed by both broadcasters and viewers, based on Raymond Williams' middle-range analysis of flow. The objective of the study is to shed light on ideological process in television, specifically the structural genesis of a discourse of time.

Television viewing by a sample of Ontario college students is examined empirically using videotape recordings of home viewing sessions by eight of these students. The recordings were analyzed with particular emphasis on duration, sequence, and temporal perspective of units of content. Temporal perspective includes time tense and mode of address. Information in regard to viewing context was provided by questionnaire self-reports.

The study highlights the structural aspects of television in transmission and viewing practices. The viewing session videotapes suggest an agreement between broadcasters and young North American viewers in regard to the speed of change in television flow. The recordings emphasize the present in both sound and picture with substantial second-person audio. Patterns of channel changing by viewers reveal switching activity throughout the viewing session. Viewers

appear to switch channels to change programs rather than avoid commercials. They switch channels more often during program content, especially news and documentary.

Television is shown to be a practice of fast-paced change and discontinuity. It is communication situated in a temporal present overlaid with imperative demands. This temporality appears to be inscribed in the structure of television flow. The study suggests an unacknowledged connection between television and social meaning.

Dedicated to my grandchildren

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CHAPTER I

INTRODUCTION

INTRODUCTION

In the mid 1970s I conducted a television production workshop in Hamilton, Ontario for a group of ten year olds on winter break from school. The children insisted that the "television programs" we made had to include commercials and station breaks. I have taught media production at the college level for several years now and am struck by the persistence of the idea that television consists of program material punctuated by station breaks and "words from our sponsor". Even in classroom exercises when these program interruptions are clearly unnecessary, students often insist on including them.

I had further opportunity to consider broadcast practices when I worked as a summer replacement in TV Engineering at the Canadian Broadcasting Corporation. I was among the first women to serve as a NABET[1] Videotape Recorder Operator in the TV Presentation Department, the transmission centre for all English language network television. VTR Operators worked between rows of huge grey 2" videotape machines on the darkened fifth floor of the old TV Engineering building on Jarvis Street in Toronto. Our job was to ensure that tapes were set up and cued properly, and that playback functioned as intended. We worked immersed in the whine of

[1] National Association of Broadcast Engineers and Technicians

capstans and the hum of air conditioning as machinery endlessly spun out television signals to all parts of the country. It was a highly automated process. Programs were packaged, that is, re-recorded with network logos, breaks, and commercials, in the still hours of the all-night shift. Only rarely were we required to roll in commercials live, and allow an opportunity for human error. Transmission is an industrial process, workers on an assembly line producing continuous broadcast signals for national dissemination.

This study begins with the idea of television as an industrial process. Broadcast is an industry which depends on elaborate technology and specific production processes. Effective television requires that content be shaped to take full advantage of all aspects of screen space and time. This requires conformity to a highly evolved set of practices. Television is a means of communication in which message and technology are intimately connected.

Technology is not merely hardware. Technologies comprise both material and symbolic practices as well as sets of physical objects. Broadcast technology includes VTR operations, as well as symbolic practices such as direct address to the viewer. Technology also includes a set of knowledges. Ursula Franklin describes technology as a system, a web of interactions, which involves "organization, procedures, symbols, new words, equations, and, most of all,

a mindset."[2] North American broadcast television is all of these.

There are complex relationships among technologies and their social, political, and economic contexts. Technologies are conceived as better ways to do old tasks, the outcome of what could be considered social fantasy. Inventions do not necessarily become available technologies, however. They are developed and adopted for use within specific contexts. Despite the opportunities they may provide for social change, new technologies are conceived in terms of existing social relations.

Although the human organization associated with technologies is justified in terms of efficiency, a technological system comes into being as the result of a wide range of practical decisions. Some technologies seem to require particular kinds of organization. Others exhibit design features which merely make convenient certain social arrangements. The goals of new technologies are socially motivated, however, and precipitate characteristic organization and procedures. Technologies are often considered to be neutral but they can be used to exercise power. They are "ways of building order in our world".[3]

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[2] Ursula Franklin, The Real World of Technology, (Toronto: CBC Enterprises, 1990), p.12.
[3] Langdon Winner, "Do Artifacts Have Politics?", The Social Shaping of Technology: How the Refrigerator Got its Hum,

Knowledges and practices, both material and symbolic, are the often invisible shell of technological hardware. The products that result are deeply inscribed by the total technological system. Debra Clarke describes Canadian television news as a socially constructed text which manifests the material practices that go into its making. She identifies practical logistics, historically evolved methods, and professional ideology as some of the constraints which affect the form and content of television news. She has stated, "Indeed, empirical investigation of the actual organization and practices of production can go a considerably long way towards explanation of the nature of the commodity that emerges as their result."[4]

The broadcast product is indelibly stamped by its means of manufacture. Other material practices which affect television are the conventions of transmission. According to Raymond Williams, "Unlike all previous communication technologies, radio and television were *systems primarily devised for transmission and reception as abstract processes, with little or no definition of preceding content*."[5](original italics)

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eds. Donald Mackenzie and Judy Wajcman (Milton Keynes: Open University Press, 1985), p.30.

[4] Debra Clarke, "Constraints of Television News Production: The Example of Story Geography", Canadian Journal of Communication, 14 (1990), p. 68.

[5] Raymond Williams, Television: technology and cultural form, (New York: Schocken, 1975), p.25.

It was television's social advantages as a mobile and home-centred mass communication, and its realization in the form of a consumer durable, that led to its development in the first place. In Canada, radio first appeared in the form of commercial enterprise. Canadian public broadcasting later held out the promise of cultural differentiation and political unity. In this country, public television broadcasting is motivated also by profit. Of primary concern to broadcasters are audience size and the delivery of consumers to these advertisers. Television extends and organizes the vast home-based consumer market.

Broadcast television in Canada, whether public or private, operates as an economic activity in a capitalist marketplace. It is a centrally controlled, highly ordered popular activity. Theodor Adorno and other Frankfurt School theorists, in classic criticism of the culture industry, accused the capitalist system of turning artistic expression into commodities. Culture industries were seen as providing entertainment in order to reconcile the working class to a political, social, and economic status quo. Adorno described popular music works as standardized commodities characterized by part interchangeability and "pseudo-individualization" which gave only an appearance of novelty.

These concerns apply to present-day television and radio as much as they did to the popular music of Adorno's time. In Acoustic Communication, Barry Truax has detailed the increasing commoditization in contemporary listening experiences, particularly radio. He notes the resulting "standardization and simplification of both form and content that is consistent with mass production philosophy".[6] Television also is a series of "pseudo-individualized" programs, alike in form if not in content. The telecast day is a string of unconnected, therefore interchangeable, units. Television has come to be defined in terms of these structural qualities.

Truax argues further that it is the "structural features of the program organization that actually hold the listener's attention and, moreover, condition the listener's acceptance of the commercial message."[7] The structure that we associate with radio and television consists of a stream of content segments. Present day critics wax eloquent about the particularity of this broadcast format, and the perils of the thirty-second attention span. According to Barbara Kruger, for example, "Television is the most relentless purveyor of the messages that constitute and perpetuate our severely fragmented public consciousness. It slices our attention span into increments too infinitesimal to get up

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[6] Barry Truax, Acoustic Communication, (Norwood, NJ: Ablex, 1984), p. 155.
[7] Truax, p. 161.

and measure...That television's parade of segments follow one another but do not 'go together' does not seem strange or problematic to its viewers...It evades singularity and loiters amid the serial, the continual, the flow."[8]

Raymond Williams maintained, in regard to television broadcasting that "important parts of the content were and have remained by-products of the technology rather than independent enterprises."[9] He was among the first to describe broadcast television as the experience of seamless flow. Most people say that they watch television, not a list of discrete programs. Indeed, broadcast transmission consists of much more than program units. In North America, television content is a stream of system information and commercial messages as well as program material. At its heart, television is a delivery process, an intricately structured and predictable transmission system. Like Williams, my position is that television discourse derives from its technology as much as from program content. The structure of broadcast transmission, its flow, needs to be examined.

This then is a study of television as transmission; the actual broadcast units, their duration, and the nature of the juxtapositions of sound and image sent to viewers. It is

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[8] Barbara Kruger, "Remote Control", Artforum, November 1985, p.7.
[9] Williams, Television: technology and cultural form, p.29.

also a study of what viewers experience as broadcast television. It includes interventions into the transmission process, namely the choices that viewers make as they switch from channel to channel. In addition, it takes into account the context in which television viewing takes place.

In March 1994, eight students videotaped for me a session of home television viewing. The videotapes yielded data intended to correspond to their actual viewing. The attempt was to ascertain all the elements of the viewing experience. The data include program units as well as breaks and commercials. This has provided an opportunity to empirically examine broadcast television as actually experienced, rather than as transmitted by a television station. From this data it is possible to describe in detail the subject matter of television viewing for these young people. What they heard and saw may shed light on television experienced by others. Questionnaires that these students completed provided information about the situations in which they watched television. The data in the study are evidence of practices which, in turn, may offer clues to television's social communication.

Marshall McLuhan warned that the effects of technology "do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without

any resistance."[10] A means of communication is a "technology of the intellect". For Jack Goody, differences in the means of communication have had an impact on human cognition, and are crucial in understanding social interaction.[11] There is evidence of this in studies of writing and literacy. The medium alone is not the message, however. Technologies are the result of social, economic and political forces. An exploration of the communicative workings of a technology does not imply simple technological determinism.

It makes sense that North American broadcast television participates in the production of social meaning and plays a role in configuring our awareness, however. This study details the television text in order to ascertain empirically what the television experience offers. The intention is to uncover in the television text something of what is taken for granted in contemporary experience.

According to Fredric Jameson, technologies of reproduction like television which have supplanted earlier technologies of production, illuminate the "cultural logic of late capitalism". North American broadcast television participates in a market economy in which images themselves have become commodities. According to Jameson, "The

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[10] Marshall McLuhan, Understanding Media: The Extensions of Man, (Toronto: Signet, 1966), p. 33.
[11] Jack Goody, The Domestication of the Savage Mind, (New York: Cambridge University Press, 1977), p. 18.

technology of contemporary society is therefore mesmerizing and fascinating not so much in its own right but because it seems to offer some privileged representational shorthand for grasping a network of power and control even more difficult for our minds and imaginations to grasp: the whole new decentered global network of the third stage of capital itself."[12] He offers television's way of doing things as a means of understanding economic and social relations.

Jameson's celebratory approach, which looks for new connections between cultural technology and contemporary thought, seems more helpful than the pessimism of television's detractors. Raymond Williams rightly characterized much critical writing about television as a manifestation of the loss of prestige and position affecting cultural elites.[13] Television is central to popular culture, however, and its ways are here to stay. I am interested in studying television because it is a contemporary cultural phenomenon, not because of any prejudgement of harm that it may inflict. As social technology and popular culture, broadcast television has the potential to reveal much about contemporary experience. I suggest that the structure of television can show us something of the order we have constructed.

[12] Fredric Jameson, Postmodernism, or, The Cultural Logic of Late Capitalism, (Durham, NC: Duke University Press, 1991), p. 37-38.
[13] Raymond Williams, The Politics of Modernism: Against the New Conformists, (London: Verso, 1989), p. 125.

Notions of time are foundational elements of social ordering. Time is normative. It is used to regulate, to co-ordinate, and to integrate social life. It is used as an orientation for participation in events, whether festivals or production procedures. Time serves to regulate behaviour. This can be external or self-regulation. Time is a "social habitus which is an integral part of each individual personality structure".[14]

Time discipline is part of social learning. I recall waiting at a traffic light with a fellow technician at the Canadian Broadcasting Corporation. His foot was off the pavement and onto the road the very instant the light turned green. His work as a technical director involved switching broadcast signals at specific times, and required a high degree of temporal precision. New Yorkers are said to be quick and aggressive. In contrast, the rhythms of Vancouverites seem "laid back".

I agree with McLuhan that television has an impact on perceptions which occur at a more general level of symbolic meaning. Television's ideological processes play a role in the regulation of human behaviour, and feeling. I argue that it is the formal properties of television that participate

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[14] Norbert Elias, Time: An Essay, trans. Edmund Jephcott, (Oxford: B. Blackwell, 1992), p. 11.

in communicating this social discourse. The formal properties of television include aspects of its structure, which derive in large part from the conventions of television use. One such social meaning has to do with the nature and experience of time. In this project I investigate television for evidence of a discourse of time in the structure of broadcast. What does television tell us about time?

CHAPTER II

LITERATURE REVIEW

LITERATURE REVIEW

The literature on television has been a tug of war between those who consider that broadcasting institutions determine social meaning, and those who think viewers more freely interpret what they see on television. Theoretical positions have occasioned specific research methodologies. Social critics such as Neil Postman, following in the wake of the Frankfurt School, tend to assume communication to be a direct sender-receiver process. Uses and gratifications researchers see a more refracted process, with life experience and personal needs helping to determine interpretations of what viewers see and hear on television. The former approach is often rhetorical, and has not been able to provide empirical confirmation. The latter is characterized by empirically-based research but often flounders on the difficulty of defining and measuring viewer needs. In my opinion, uses and gratifications research also tends to get stuck in prevailing popular debates about the harm that television inflicts. For example, years of studies have examined the effects of television on societal violence, and considerable energy has been spent trying to determine whether television is an "addiction".

There is also an important tradition of empirical research into the physiological effects of television. Direct effects remain difficult to prove, however. Some empirical

researchers have tried to operationalize various formal characteristics of television. The usefulness of many of the properties which have been investigated remains to be demonstrated. These studies tend to isolate viewing processes from wider social concerns. In my opinion, a major problem with much of this research is that it is based on television viewing under controlled laboratory conditions, a very artificial viewing context.

Ethnographic approaches to television research, on the other hand, have studied a complex of factors in television communication including the impact of general societal and specific viewing contexts. This work has challenged positivist empirical methodologies, and has legitimized qualitative research. It is my position that there are strengths in both quantitative and qualitative research methodologies. These need to be reconciled in the interests of effective television research.

Qualitative analysis has benefited also from semiotics and film theory. Cultural objects such as television make meaning through signifying practices. Television is a system of codes and conventions which can be studied as a text. Cultural texts reveal the practices of language. These practices involve both broadcasters and audiences. The television text allows an opportunity, in Raymond Williams' words, "to see how, in the very detail of composition, a

certain social structure, a certain history, discloses itself".[15] Researchers can now draw on a wide range of analytical tools in their search to understand the phenomenon of television. It has been my intention to draw on several research traditions in this study.

Frankfurt School scholars Theodor Adorno and Max Horkheimer began attacking the ideological power of popular culture in the 1940s.[16] For these critics who were deeply concerned by European fascism, society was in the control of brutalizing interests. The very notion of a "mass" audience was cynical and dehumanizing. Another critic of European fascism, Antonio Gramsci, conceptualized the notion of hegemony to explain the practical ways in which states manipulated everyday ideas in the exercise of power.[17] "Common sense" was Gramsci's term for the practical knowledge of the daily world which is taken for granted. A statement is true if it is credible. It is credible if it stirs a recognition of things we already know. Although individuals were thinking

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[15] Williams, The Politics of Modernism: Against the New Conformists, p. 185.

[16] See Theodor Adorno and Max Horkheimer, "The Culture Industry: Enlightenment as Mass Deception," Mass Communication and Society, eds. James Curran, Michael Gurevitch, and Janet Woollacott (London: Edward Arnold, 1977) pp. 349-83.
Also, Theodor Adorno "On the Fetish-Character in Music and the Regression of Listening", The Essential Frankfort School Reader, eds. Andrew Arato and Eike Gebhardt (New York: Urizen Books, 1978) pp. 270-299.

[17] See Antonio Gramsci, Selections from the Prison Notebooks of Antonio Gramsci, trans. & eds. Quentin Hoare and Geoffrey Nowell Smith, (New York: International, 1971).

and acting subjects who struggled to come to terms with the ideas of opposing social forces, Gramsci implicated intellectuals, including broadcasters, as participants in a civic hegemonic formation which manipulated popular common sense for ideological purposes. Following Gramsci, Louis Althussar proposed a list of "ideological state apparatuses" including the press, radio, and television, which controlled social consciousness. For Althussar, ideology was made material in practices such as the cinema which "interpellated" individuals as subjects.[18] Althussar's elaborate structures detailed the way that dominant ideologies were culturally imposed by social institutions. For these social theorists, popular culture was manipulation.

Technologies, including communications technologies such as television, are not autonomous forces, however. This is where I differ with many social critics. Technologies develop out of social concerns. They also feed back into society. In my view, this is a more circular process of change than the "television effects" explanation allows. This is a process of ideology like that described by Antonio Gramsci, not the top-down structuralist process of theorists such as Althussar.

[18] See Louis Althussar, Lenin and Philosophy (London: New Left Books, 1971).

Lack of empirical evidence to support their analyses and the extravagance of many of their pessimistic complaints left social critics vulnerable to charges that their observations were merely speculation. From the 1940s, American researchers in pursuit of scientific certainty have conducted quantitative studies on the effects of mass media. Effects research looked at specific behaviours in individuals to try to ascertain the persuasive power of various media. It was assumed that media had direct, immediate, and total effects on individual behaviour and attitudes. Inspiration for the study of media effects was commercial market research, and investigations centred on consumer and voting choice. The influence of the media was assumed to cause changes in an individual's choices, although the duration of these changes were largely undetermined. Media effects were seen as the objective facts of communication.

Direct effects of television were hard to prove, however, so researchers looked for other explanations. In 1948, Paul Lazarsfeld and his colleagues theorized a process in which opinion leaders facilitated the messages of the mass media. In 1960, Joseph T. Klapper attempted to collate and integrate what had been learned about mass media effects on opinions, values and behaviour. Klapper concluded that mass communication "functions among and through a nexus of mediating factors and influences". He saw media as

reinforcing already held opinions. It occasioned change only when the "mediating factors and influences" were inoperative, or themselves impelled toward change. Klapper noted that "various aspects of the media and communications themselves or of the communication situation (including, for example, aspects of textual organization, the nature of the source and medium, the existing climate of public opinion, and the like)" affect the influence of mass communication on audiences.[19]

Klapper did admit that media seemed to have a "hypodermic" direct influence in producing a variety of psycho-physical effects, however. One basis for linking television programs with physiological response was information theory. In the 1970s, James Watt and Robert Krull investigated "the degree of uncertainty reduction in the receiver", which they labeled "entropy", as a useful measure of program form. Change in information content, the entropy score, was used as a measure of the complexity of a stimulus.[20] In the early 1970s also, D.E. Berlyne conducted experiments which examined neurological processes associated with visual and auditory stimuli.[21] Recent neuroscience investigations of

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[19] Joseph T. Klapper, The Effects of Mass Communication (Toronto: Collier-Macmillan Canada, 1960), p. 8.
[20] James H. Watt and Robert Krull, "An Information Theory Measure for Television Programming," Communication Research, 1 (1974), 44-69.
[21] D.E. Berlyne, ed., Studies in the New Experimental Aesthetics: Steps Toward an Objective Psychology of Aesthetic Appreciation (New York: John Wiley & Sons, 1974)

perception and cognition have examined aesthetic preference with particular emphasis on the differences between left and right brain functioning.[22]

In the 1980s, Byron Reeves and Esther Thorson conducted a wide-ranging series of laboratory investigations into the effects on "mental effort, attention and meaning" of stimulus characteristics such as image and sound complexity, message novelty and movement.[23] These researchers looked at viewer response in order to identify potent elements of the television stimulus, and noted also the voluntary aspects of attention to television. Attention has been conceptualized as a "psychological cognitive process that varies within individuals over time", and has been studied in terms of vigilance tasks, simultaneous sources of stimulation, priming stimuli, perceptual intrusion, and attention switching, as well as the orienting response.[24] Jennings Bryant and Dolf Zillman have summarized recent research into automatic arousal responses in television viewing. Zillman notes that there are differences between cognitive and

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[22] See Ingo Rentschler, Barbara Herzberger and David Epstein, eds. Beauty and the Brain: Biological Aspects of Aesthetics (Boston: Birkhauser Verlag, 1988).
[23] Byron Reeves, and Esther Thorson, "Watching Television: Experiments on the Viewing Process," Communication Research, 13 (1986), 343-361.
[24] Byron Reeves, Esther Thorson, and Joan Schleuder, "Attention to Television: Psychological Theories and Chronometric Measures," Perspectives on Media Effects, eds. Jennings Bryant and Dolf Zillman, (Hillsdale, NJ: Lawrence Erlbaum Assoc., 1986), pp. 251-279.

affective arousal, and conscious and unconscious information processing.[25]

Advertising researchers continue to investigate automatic and higher-order cognitive processes as they relate to recall, recognition, comprehension, and behavioural responses to television commercials. Judith L. Zaichkowsky has summarized a variety of factors which affect involvement with advertising from a practical marketing point of view. She cites several personal, stimulus, and situational factors which result in varying levels of involvement with different kinds of advertising.[26]

The challenge of empirical investigation into psychological and social influences on media effects was taken up by uses and gratifications research. This research has sought to explain attitudinal or predispositional components of media use, how viewer needs influence media effects. An underlying assumption for uses and gratifications research has been that "individuals differentially select and use communication vehicles to gratify or satisfy felt needs."[27]

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[25] Dolf Zillman, "Television Viewing and Physiological Arousal," Responding to the Screen: Reception and Reactions Processes, eds. Jennings Bryant and Dolf Zillman, (Hillsdale, NJ: Lawrence Erlbaum Assoc., 1991), pp. 103-133.
[26] Judith L. Zaichkowsky, "Conceptualizing Involvement," Journal of Advertising, 15 (1986), 4-14.
[27] Alan M. Rubin, "Uses, Gratifications, and Media Effects Research," Responding to the Screen: Reception and Reaction Processes, eds., Jennings Bryant and Dolf Zillman, (Hillsdale, NJ: Lawrence Erlbaum Assoc., 1991), p. 281.

Uses and gratifications research has assumed a learning model which posits stimulus, reinforcement, and response hierarchies. Its preferred methodology has been the testing of hypotheses against objective empirical data.

Recent uses and gratifications research has noted both ritualized and instrumental uses of media. Researchers have investigated the use of television for play, for arousal, to pass time, and to reduce tension. Studies also continue to look into the notion of media dependency, and the connections between television and aggression. These studies have had variable results. George Gerbner and his colleagues have studied a long-term social "cultivation process" in which viewers are immersed in patterned world views such as a "mean world syndrome" which have been "mainstreamed" by television.[28] Research into "schema" is another area of inquiry which has attempted to link cognitive processes with the social environment, and has been used by Doris Graber to attempt to explain the ways in which "people tame the information tide".[29] Schema are cognitively ordered abstractions about concrete reality. Graber's is a multi-step model in which television information processing is

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[28] George Gerbner, Michael Morgan, and Nancy Signorielli, "Living With Television: The Dynamics of the Cultivation Process," Responding to the Screen: Reception and Reactions Processes, eds. Jennings Bryant and Dolf Zillman, (Hillsdale, NJ: Lawrence Erlbaum Assoc., 1991), pp. 17-40.
[29] Doris A. Graber, Processing the News: How People Tame the Information Tide, 2d ed., (White Plains, NY: Longman Inc., 1988).

triggered by arousal, and followed by processes of segmenting and comparing the new information to schemata stored in long term memory.

Joseph Klapper's "generalizations" in regard to the constraints on media effects, sound remarkably like current issues in uses and gratifications research. Kim Christian Schroder has noted that early gratifications research examined the text/reader relationship in ways that were "quite as sophisticated as the reception studies of the 1980s".[30] Schroder cites the 1944 study of radio listeners by Herta Herzog, "What Do We Really Know About Daytime Serial Listeners".[31] Herzog acknowledged the necessity of knowing the content of the serials as well as the psychological nature of listener satisfaction. She concluded that radio serials provided emotional release, and served to teach skills for coping with life problems. The latter was seen as cause for concern. More recently, Robert Kubey and Mihaly Csikszentmihalyi have concluded that viewers use television as an escape to avoid negative affective states.[32] While blaming society and not television for the social ills that

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[30] Kim Christian Schroder, "Convergence of Antagonistic Traditions? The Case of Audience Research," European Journal of Communication, 2 (1987), 13.
[31] Herta Hertzog, "What Do We Really Know About Daytime Serial Listeners," Radio Research, 1943-43, eds. Paul F. Lazarsfeld and F. Stanton, (New York: Duell, Sloan and Pearce, 1944).
[32] Robert Kubey, and Mihaly Csikszentmihalyi, Television and the Quality of Life: How Viewing Shapes Everyday Experience (Hillsdale, NJ: Lawrence Erlbaum Assoc., 1990).

needed escape, these researchers exhorted viewers to get off the couch and direct their energies to goals that are more "complex, rewarding, and healthful". Throughout much of this research history, television has been studied as a harmful phenomenon.

James W. Carey characterized the shift from what media do to individuals, to what individuals do with media as the difference between causal and functional models of communication. He has complained, however, that in this latter approach "consequences are related to the motivations for the action in an extremely vague, unspecific and unconvincing way."[33] What was in contention is the scientific method itself, and whether it is an appropriate or adequate way to understand the impact of mass media. According to Carey, the effects tradition has not produced agreement on the relationships between media and behaviour and therefore, "the central tradition of effects research has been a failure on its own terms".[34] Schroder has noted serious limitations in the explanatory power of "dogmatic adherence to a quantitative methodology". Other theorists agree that causal explanations based on a single variable are "limiting and suspect".[35] In addition, there are concerns about measurement validity and reliability in effects research,

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[33] James W. Carey, Communication as Culture: Essays on Media and Society (Cambridge MA: Unwin Hyman, 1988), p. 54.
[34] Carey, p. 91-92.
[35] Rubin, p. 298.

the appropriateness of laboratory testing, and the difficulty of generalizing from data based on individuals. Finally, the process of testing hypotheses against empirical data has been questioned as inadequate to the television experience which takes part in a complex of social and psychological factors. Television can hardly be the independent variable that researchers posit. Personal dispositions are "formed within a social process in which television has a strong and constitutive part".[36]

Carey has considered quantitative research in general to be responsible for a "long-term retreat into method at the expense of substance". Thomas R. Lindlof adds, "Understanding does not entail or require knowledge of how to predict or control a phenomenon."[37] Effects research has been criticized for reflecting the interests of the researchers, rather than contributing to a more socially relevant understanding of communications. Todd Gitlin maintained in 1978 that the social science paradigm itself was deteriorating.[38] More to the point was the problem of the narrow effects focus and unexamined ideological purposes of mass communications research.

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[36] Stephen Heath, "Representing Television," Logics of Television, ed. Patricia Mellencamp, (Bloomington and Indianapolis,IN: Indiana University Press, 1990), p. 284.
[37] Thomas R. Lindlof, Qualitative Communication Research Methods (Thousand Oaks, CA: Sage Publications, 1995), p. 9.
[38] Todd Gitlin, "Media Sociology: The Dominant Paradigm," Theory and Society 6, (1978), pp. 205-253.

Klaus Bruhn Jensen maintains that quantitative and qualitative analyses are different forms of understanding which "place different demands on the research designs and yield different forms of evidence".[39] He characterizes the data of quantitative research as information, whereas the substance of qualitative data is meaning. Qualitative data are derived from viewers' own articulations, not categories imposed by the researcher. Schroder suggests finally that it is their "unresearchability" with quantitative methods which accounts for the little attention usually paid to "structured belief systems" in attitude change. He argues that quantitative methodology "appears to be unable to capture the multidimensionality and complexity of the media's symbolic structures, as well as the ambiguities and contradictions of audience experiences."[40] He is convincing in his call for media theory to "rethink interpersonal relations in qualitative terms".

One of the main cases against the pursuit of short-term changes in individual attitude and behaviour, has been its unarticulated view of social relations. American social science methodology took for granted the social, political, and economic status quo. There was no examination of the implications for mass media of the political and social

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[39] Klaus Bruhn Jensen, "Qualitative Audience Research: Toward an Integrative Approach to Reception," Critical Studies in Mass Communication, 4, (1987), 32.
[40] Schroder, p. 13.

formations that had impassioned European social philosophers. Clearly, human responses cannot be separated from the interpersonal contexts in which people live, and from the power relationships within these historically located contexts. Research into the mass media has to articulate the values which inform its research agenda.

Stuart Hall summarized the ideological basis for the empirical, behaviourist approach as social control. For Hall, what "passed itself off as 'pure science'" was based on the unexamined postulates of a consensus around democratic pluralism.[41] Mass media were seen optimistically because they reinforced core social values. Differences in individual uses and satisfactions were explained away by "selective perception" or "deviance". Hall noted that a significant change in media analysis took place when signifying practices themselves were investigated. Work by anthropologist Claude Levi-Strauss indicating that there was a "logic of arrangement" underlying meanings in a culture, and the "social construction of reality" approach developed by Berger and Luckmann, pointed to a more three-dimensional model of communication. Meaning was a social production which took place through the medium of language. This drew attention to actual media practice. Television was not

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[41] Stuart Hall, "The Rediscovery of 'Ideology': Return of the Repressed in Media Studies," Culture, Society and the Media, eds. Michael Gurevich, Tony Bennett, James Curran, and Janet Wollacott (London: Methuen, 1982), pp. 56-90.

merely a neutral carrier of content; the medium itself was actively engaged in meaning production. Of course, Marshall McLuhan had alerted theory to the consequences of the medium in the message in the early 1960s. Hall insisted on the social and historical dimensions in this relationship. Semiotics took a microscope to the workings of communication.

At the end of the 1960s, Roland Barthes revitalized the structuralist linguistics of Ferdinand de Saussure to provide a new framework for media analysis. For semiotics theorists, media messaging was a "text" which inscribed "readers" in particular "subject positions". Jacques Lacan reworked Freudian psychoanalysis to explain the way in which the symbolic order of language fabricated identity. It was through language that individuals made sense of their experience in the world. The external world was articulated through language. Signifying practices were therefore of prime importance in communication.

Semiotic analysis was applied particularly to the cinema, but spilled over onto television. While a study of popular meaning, much semiotic analysis was also a critique of mainstream capitalist social relations. In "Visual Pleasure and Narrative Cinema", published in 1975 in the influential British journal Screen, Laura Mulvey appropriated psychoanalytic theory in order to demonstrate "the way the

unconscious of patriarchal society has structured film form."[42] According to Mulvey, narrative structure and the cinematic language of shots and sequences were implicated in instilling dominant social values in the unconscious of viewers. Viewer subjectivity was constituted by their complicity in how ideas were expressed on screen. The way individuals saw and took pleasure in looking at film was structured by its form. Particular attention was paid to rules in specific film genres. Screen theorists criticized traditional narrative exposition, and accused the Hollywood film's "classic realist text" of reproducing the existing social order.[43] Theorists and avant-garde practitioners advocated a self-conscious rupture of cinematic convention and a foregrounding of production processes.

Film and television remained an all-powerful system of signs in screen theory. The only positions possible for the reader were those inscribed by the text. What is more, the individual was a "decentred" subject pushed by media into a continual process of identity formation. Detractors of screen theory point to the lack of individual agency in this analysis. They also take exception to the inherent elitism of its political critique. A large popular audience continues to enjoy realist, narrative cinema. Shaun Moores

[42] Laura Mulvey, Visual and Other Pleasures (Bloomington and Indianapolis, IN: Indiana University Press, 1989).
[43] Colin MacCabe, "Realism and the Cinema: Notes on Some Brechtian Theses," Screen, 15, No. 2 (1974), 7-27.

has noted also the problem of ideological debate "conducted wholly around questions of form over and above those of content or context."[44] In his view, textual analysis had removed cultural objects from "substance and social location".

The work of Stuart Hall and his colleagues at the Centre for Contemporary Communication Studies at the University of Birmingham, dispatched what remained of the "hypodermic" model of communication, and championed the validity of popular culture. Hall proposed a model of communication which included production and reception as different moments in the process, involving different "meaning structures". Encoding was the shaping of meaning into textual form, influenced most often by professional media practices. Decoding was work done by the receiver to make meaning out of these texts. According to Hall, "In a 'determinate' moment the structure employs a code and yields a 'message': at another determinate moment the 'message' via its decodings, issues into the structure of social practices".[45] Decoding was influenced by viewers' individual qualities, their knowledge, and viewing competency. Hall maintained that any enclosed text had a pattern of preferred readings

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[44] Shaun Moores, Interpreting Audiences: The Ethnography of Media Consumption (Thousand Oaks, CA: Sage Publications Ltd., 1993), p. 15.
[45] Stuart Hall, "Encoding/decoding," Culture, Media, Language: Working Papers in Cultural Studies 1972-79, eds. Stuart Hall, Dorothy Hobson, Andrew Lowe, and Paul Willis (London: Hutchinson, 1980), pp. 128-138.

inscribed by the dominant cultural order. Decoding was affected by the "naturalized perceptions" which were the ideological product of convention. However, there was room in the text for negotiated and oppositional as well as dominant interpretations. At last, media theory had given the viewer an opportunity for independence.

In an extensive study of audiences, Charlotte Brunsdon and David Morley documented responses to a popular British public affairs television program by a variety of viewer groups.[46] Brunsdon and Morley conceptualized audiences as groupings with shared cultural formations and practices, resulting from their objective social positions. Decodings were not based merely on socioeconomic class factors, however. According to Morley, "The meaning of the text will be constructed differently according to the discourses (knowledges, prejudices, resistances, etc.) brought to bear by the reader and the crucial factor in the encounter of audience/subject and text will be the range of discourses at the disposal of the audience."[47] Morley saw that there were more viewer interpretations possible than the three allowed by Hall's model.

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[46] Charlotte Brunsdon and David Morley, Everyday Television: 'Nationwide' (London: BFI, 1978).
[47] David Morley, "Cultural Transformations: The Politics of Resistance," Language, Image, Media ed. Howard Davis and Paul Walton, (Oxford: B. Blackwell, 1983), p. 106.

Moores has described an abundance of audience research into the social character of media reception, following Brunsdon and Morley. This work focused on what viewers said about their own television experience and how this related to social positioning. One example is the work of John Corner and Kay Richardson which documented and classified media interpretations of differently placed media consumers.[48] Their research paid particular attention to the details of respondents' accounts in interviews with viewers, following screenings of specific television programs. Greg Philo used photographs to trigger memories in viewer groups of television news reports of the 1984-5 British miner's strike.[49] Philo observed that while there was unanimity in regard to the issues established by television news, individual life experiences produced a wide variation of viewer interpretations of these reports.

While audience research was an attempt at empirical inquiry, the researchers' own predeterminations of the television text and the hypothesized categories of viewer response have been seen to limit study results. Morley also maintained that media interpretations were a collective social construction. Researchers again came to realize that

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[48] Kay Richardson and John Corner, "Reading Reception: Mediation and Transparency in Viewers' Accounts of a TV Programme," Media, Culture and Society, 8, (1986), 485-508.
[49] Greg Philo, Seeing and Believing: The Influence of Television (London: Routledge, 1990).

decoding was highly dependent on the social and cultural contexts in which television was experienced.

For James W. Carey, the cultural studies approach closed the gap between cause and consequence in communications research. It allowed researchers to understand the meanings that others have placed on experience, and gave an opportunity to "grasp the imaginative universe in which the acts of our actors are signs".[50] For Carey, human action itself was a text. Speech, writing, and gesture were all sets of practices, and the researcher's task was to figure out what they say. Carey has traced the cultural studies approach to examinations by Raymond Williams and Richard Hoggart of the everyday life experiences of people in British industrial society.[51] James Lull has recounted a tradition in the United States of qualitative empirical work on family life dating back to the nineteenth century. He has described the audience research of those associated with the Birmingham Centre for Contemporary Cultural Studies as "variations of ethnography".[52] Contemporary communications research cannot ignore contextual aspects of media reception.

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[50] Carey, p. 59.
[51] See Raymond Williams, The Long Revolution, (New York: Columbia University Press, 1961), also Richard Hoggart, The Uses of Literacy (Boston: Beacon Press, 1961) cited in Carey, p. 95.
[52] James Lull, Inside Family Viewing: Ethnographic Research on Television's Audiences (London: Routledge, 1990), p. 8.

Dorothy Hobson, a former student at the C.C.C.S., was one of the first to carry out cultural studies research into the production and reception of a popular British television soap opera. Hobson interviewed young mothers in their homes in order to better understand viewing practices and pleasures.[53] In Family Television, David Morley analyzed the sitting-room power dynamics of families in their television viewing.[54] Ien Ang[55], and Elihu Katz and Tamar Liebes[56] have studied the responses of audiences to the American series Dallas, with particular attention to cross-cultural implications. Several researchers including Ang and Morley have emphasized the gendered nature of reception practices. Janice Radway's influential study of women readers of romantic fiction provided further evidence of the value of empirical, ethnographic study. The women readers themselves offered insights into their own media use that challenged the premises of the study.[57] Radway maintains, "Ethnography may still be the most effective method... because it makes a concerted effort to note the range of daily practice and to

[53] Dorothy Hobson, 'Crossroads': The Drama of a Soap Opera (London: Methuen, 1982) cited in Shaun Moores, pp. 41-44.
[54] David Morley, Family Television: Cultural Power and Domestic Leisure (London: Comedia, 1986).
[55] Ien Ang, Watching Dallas: Soap Opera and the Melodramatic Imagination (London: Methuen, 1985).
[56] Elihu Katz and Tamar Liebes, "Mutual Aid in the Decoding of 'Dallas': Preliminary Notes from a Cross-Cultural Study," Television in Transition: Papers from the First International Television Studies Conference, eds. Phillip Drummond Phillip and Richard Paterson (London: BFI, 1985), pp. 187-98.
[57] Janice Radway, Reading the Romance: Women, Patriarchy and Popular Literature (London: Verso, 1987) p. 7, quoted in Shaun Moores, pp. 48-49.

understand how historical subjects articulate their cultural universe."[58]

For Morley, watching television is a complex of differences, "differences between the choices made by different kinds of viewers in relation to different viewing options, and the differences (of attention and comprehension) between different viewers' responses to the same viewing materials--differences which are masked by the finding that they all 'watched' a given programme."[59] For Radway, who seems more interested in the transience of contemporary subjectivity than the politics of family life, it is necessary to investigate "the *multitude* of concrete connections which ever-changing, fluid subjects forge between ideological fragments, discourses and practices."[60] The task for contemporary media researchers is how to connect what is known of the various dimensions of communication. Klaus Bruhn Jensen has suggested a framework for mass communication and reception studies which includes situational viewing contexts, media "textual structures", audience social placement and personal competencies, and

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[58] Janice Radway, "Reception Study: Ethnography and the Problems of Dispersed Audiences and Nomadic Subjects," Cultural Studies 2, No. 3., (1988), 366.
[59] Morley, Family Television, pp. 15-16.
[60] Janice Radway, "Reception Study: Ethnography and the Problems of Dispersed Audiences and Nomadic Subjects," p. 365.

analytical factors such as external political and economic constraints.[61]

David Morley's Family Viewing was a conscious merging of literary/semiological perspectives with sociological leisure studies. Sonia M. Livingstone combined semiotic and reception theories with cognitive social psychology in an empirical study of television soap opera audiences in Britain. Livingstone maintained that precepts of social psychology are useful for understanding reception because viewers interpret soap opera characters with the same processes that they use to understand and sympathize with people in everyday life. Livingstone has maintained that television viewing needs to be conceptualized in terms of information comprehension, and a variety of interpretive processes: critical, passive, active, or mindless. Her research indicated that viewers' social knowledge did determine their representations of characters in some situations, but that story structures were most influential in others. Livingstone noted, "the role of social knowledge operates in part to override the themes foregrounded in the programming structure."[62]

Livingstone's research benefits from both quantitative and qualitative empirical traditions. Livingstone consciously

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[61] Jensen, pp. 21-36.
[62] Sonia M. Livingstone, Making Sense of Television (Oxford: Pergamon, 1990), p. 140.

applied a quantitative approach to issues often studied qualitatively. She employed multi-dimensional scaling to identify thematic structures in what viewers said about soap opera characters, semantic differential scales to test these themes, and statistical techniques to verify the derived character dimensions.

Livingstone was careful to examine the qualities of the open television text, and its linguistic features which require active involvement by the viewer. She took issue with much social psychological research, including schema theory, because it is based on an information processing model that assumes the television text to be a closed structure. Studies of soap opera, however, have noted that its narratives are indeterminate and do not lead to a conclusion. Livingstone adopted Robert Allen's analysis that soap opera texts are complex paradigmatic structures.[63] In comparison to syntagmatic structures of event-driven sequenced narratives, soap operas require viewers to make interpretive choices about characters, situations, and their representation. These narratives are constructed of "a series of choice points with a set of alternative possibilities available at each point".[64] In addition to literary and ideological considerations, Livingstone pointed

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[63] Robert C. Allen, "Reader Oriented Criticism and Television", Channels of Discourse, ed. Robert C. Allen, (London: Methuen, 1987), pp. 74-112.
[64] Livingstone, Making Sense of Television, p. 73.

out the institutional constraints on the television text. Television programs are affected by production budgets and facilities, technical and scheduling constraints, professional requirements such as legal and artistic standards, perceived viewer interests and characteristics, and ratings.

For Livingstone, the television text needed to be theorized in terms of divergence, not aberrant readings of a single meaning. Livingstone found that programs expressing dominant social values also contain "normative alternatives".[65] The viewer's role was one "which realizes the virtual text, which concretizes the skeletal structure, and which negotiates with the text in deriving the empirical meaning."[66] Livingstone's intent was to investigate how audiences make sense of television, not how they may use television or how television may affect them. In ethnographically based research such as this, television is a source of pleasure rather than a potential threat to social and individual well-being.

In another study of British television soap opera reception, David Buckingham has observed that viewers occupy and shift back and forth between critical positions both inside and

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[65] Sonia M. Livingstone, "Interpreting a Television Narrative: How Different Viewers See a Story," Journal of Communication, 40 (1990), 72-85.
[66] Livingstone, Making Sense of Television, p. 91.

outside the fictional world of television soap opera.[67] Inside the story diegesis, viewers have to call upon memory of events in previous episodes, as well as events not shown but imagined. Viewers also speculate about coming events. They assemble bodies of character knowledge from a variety of story and mise-en-scene clues, and are invited to assess character actions according to common sense popular knowledge. Viewers also make judgments of the program and its characters from outside the fictional world of the soap opera. They compare their own experience to the accuracy of character representations, the development of the stories themselves as constructions, and the moral validity of characters' dilemmas. Buckingham added that viewers make use of information about the program, its production, and their knowledge of the actors' lives outside the program. Achieving coherency and interpreting levels of meaning in programs is fun for viewers. The television audience has been characterized elsewhere as being engaged in pleasurable "hermeneutic play".[68] Making meaning out of television is clearly active involvement.

Cultural studies have revealed a panoply of meanings in commodity use among subcultures.[69] Audience research has

[67] David Buckingham, Public Secrets: EastEnders and its Audience (London: British Film Institute, 1987).
[68] Tony Wilson, Watching Television: Hermeneutics, Reception, and Popular Culture (Cambridge, MA: Polity Press, 1993), p. 206.
[69] See Dick Hebdige, Subculture: The Meaning of Style (London: Methuen, 1979).

become an investigation of the ways in which actual viewers negotiate textual meanings. One of the more vocal proponents of the power of the active viewer has been John Fiske. Fiske has maintained that the viewer is a "producer of texts, the maker of meanings and pleasures", which includes subverting mainstream television representations. While texts proffer some meanings "more vigorously than others" and serve to limit the "terrain within which meanings may be made", for Fiske the viewer definitely has the upper hand. The pleasure in watching television "results from the production of meanings of the world and self that are felt to serve the interests of the reader rather than those of the dominant", according to Fiske.[70] In his view, television programs oblige in this process because they consist of a multiplicity of meanings. This goes beyond the notion of viewers finding subtexts within inhospitable, dominant texts in order to produce redemptive readings. Fiske has maintained that television programs are purposefully polysemic in order to appeal to wide popular audiences.

Toronto broadcaster and television polemicist Moses Znaimer calls this the "democratic potential" of television. In comparison with print media where analysis and authority reign supreme, the immediate television image allows viewers to see for themselves, according to Znaimer. He has praised

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[70] John Fiske, Television Culture (London: Methuen, 1987), p. 19.

television's direct emotional appeal "to the heart" of each viewer.[71] This is a utopian version of the struggle over meaning in society. It is also a gross simplification of the realities of broadcast by one of Canada's most important practitioners. Klaus Bruhn Jensen's research has indicated that while reception may be considered active, television does not dispose viewers to take part in this democracy. "Even though the social production of meaning can be seen as a process in which the prevailing definition of reality may be challenged and revised, the outcome of that process is overdetermined by the historical and institutional frameworks of communication."[72] In a recent study of children's television, Stephen Kline detailed the degree to which toy merchandisers control programming. Young viewers may be able to exercise independent interpretations of what they see on television, but their play with character toys conforms rigorously to the narrative confines of broadcast scripts featuring these characters. Kline has concluded that toy businesses control "the protocols of fantasy play" among children.[73]

The power of the viewer is such an ideologically useful conceptualization for television broadcasters that academics

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[71] Moses Znaimer, TVTV: The Television Revolution (Toronto: CBC Television, broadcast 1995).
[72] Klaus Bruhn Jensen, "The Politics of Polysemy: Television News, Everyday Consciousness and Political Action," Media, Culture and Society, 12, (1990), pp. 73-74.
[73] Stephen Kline, Out of the Garden (New York: Verso, 1993), p. 314.

such as Fiske would do well not to mimic the unarticulated optimism of early effects researchers. Valorizing readers does nothing to address real life social concerns. According to Stephen Heath, "The pursuit of plural readings mostly just leaves television intact, unthought, including again in its role in the reality in and from which those readings are given"...[74] Heath would have researchers rediscover television's polysemic, exclusive-inclusive functioning as an ideological process within the economic order. He sees media as displacing "the very assumptions of subject, reason, and the image of technology in their own terms."[75] For Heath, the social and cultural meanings of television need to be understood through its practice, an approach which reaches beyond the semiotics of individual programs and viewer interpretation processes. Moores has concluded also that cultural consumption needs to be considered as a duality of both agents and structures.[76]

My own position in regard to television inquiry is that it is necessary to acknowledge the impact of broadcasters, the opportunities for autonomy by viewers, and the effects of the context in which this communication takes place. I suggest that television communication takes place at the nexus of these forces. This study therefore is an attempt to take into account all three of these in the television

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[74] Heath, p. 285.
[75] Heath, p. 293.
[76] Moores, p. 139.

communication process. It is an attempt to unmask communication practices at this point of convergence.

I maintain also that the conceptualization of television as a cultural text is a useful research strategy. Charlotte Brunsdon has written that the category of the television text does not have to deny the mode and context of viewing.[77] A text can allow diverse modes of engagement and lead to an understanding of the practices constituting it. Further, an examination of the television text values popular culture and cares about its construction. This has been the intention in this study.

I agree with Charlotte Brunsdon that Raymond Williams' conception of television as flow is the "classical site within British cultural theory for discussion of how the television text can be constituted as a object of study."[78] The concept of flow integrates television textual practice with viewer experience, and at the same time acknowledges broadcasting's institutional basis. There has been little empirical investigation of television flow since Raymond Williams looked at British and American television in the 1970s, however. This study is such an examination.

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[77] Charlotte Brunsdon, "Television: Aesthetics and Audiences," Logics of Television, ed. Patricia Mellencamp (Bloomington and Indianapolis, IN: Indiana University Press, 1990), p. 69.
[78] Brunsdon, p. 62.

CHAPTER III

VIEWING FLOW

VIEWING FLOW

For Raymond Williams, television was not a static distributor of programming. His was a mobile concept of television which incorporated new structural relations. Previously, people participated in discrete events such as a book, a play, or a sports match, with a "single expectation and attitude".[79] On television, these separate events became a "series of timed units", a unified sequence. Flow is a planned serial assembly of program units that are always accessible. Jane Feuer has described television flow as "segmentation without closure".[80] A series of units arbitrarily linked together to create a flow has come to define the experience of television.

North American broadcast television is a flow consisting of programs, advertisements, and station breaks as well as titles, credits, "stay tuned" stings, and more. These are not merely interruptions in programming. For Williams, the real program that was being offered by television is "a *sequence* or set of alternative sequences of...events which are then available in a single dimension and in a single operation".[81]

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[79] Williams, Television: Technology and Cultural Form, p. 88.
[80] Jane Feuer, "The Concept of Live Television: Ontology as Ideology," Regarding Television, ed. E. Ann Kaplan, (Los Angeles: The American Film Institute, 1983), p. 16.
[81] Williams, Television: Technology and Cultural Form, p. 87.

In Television: Technology and Cultural Form, Williams analyzed examples of television in terms of sequence and flow at three levels: long-range, medium-range, and close-range. The long-range analysis resembled television listings like those in a newspaper. It did not include what I consider to be all the relevant elements in television viewing, such as commercials and station identification. The close-range analysis of flow included descriptions of specific shots and complete dialogue, which would have had the study drowning in detail. I wanted to see if there were consistencies over several viewing sessions. I therefore chose to undertake a medium-range analysis similar to Williams' which provided an opportunity to examine all the elements of the flow sequence in a way that could usefully reveal temporal aspects of its structure. Williams himself considered this medium-range analysis of flow to be of central importance because it shows how diverse items become unified into one stream.

Williams' concept of flow is useful for constituting television as a text for study. Text is like talk rather than language. It is neither performance nor cultural artifact but incorporates aspects of each. Television is a creation of both broadcasters and viewers using the language of television conventions. The television text examined in this study is "frozen" performance which has been transformed into a medium available for examination.

The television text I studied is the series of programs and everything else seen in eight sessions of viewing. This includes programs, titles, advertisements, logos, and more. Recordings of actual viewing sessions were coded and assembled into charts showing the nature and sequence of individual units of flow. These reflect both transmission and reception and are mediated by the context of viewing.

In 1994, I assigned viewing projects to all of the approximately ninety students in a screening course which I teach in the Media Arts Department of Sheridan College in Oakville, Ontario. This course emphasizes the variety in media genres, and introduces principles of effective communication applicable to film, television, and computer-based technologies. The course is compulsory for first year students. One of these projects required that students attend a classic silent film screening with live music, and on another occasion, watch ninety consecutive minutes of broadcast television. I ascertained in class that all students had access to television. For partial course credit, the students needed to watch television and fill in a questionnaire relating to the context in which their viewing took place. The questionnaire included both open-ended and closed questions. Appendix 1 is a copy of the questionnaire given to the students.

The television viewing assignment placed no restrictions on time of day, subject matter, location, or other viewing circumstances. I wanted the students to do their television viewing in as normal a setting as possible. I encouraged them to watch television for this project in as usual a way as possible, including switching channels and behaving as they would normally do. I required however that the students watch for a duration of ninety minutes, reasoning that it was an average amount of time for a television viewing session. In addition, this time duration accommodates three half-hour programs, almost all of a dramatic feature film, and the usual duration of a television 'special'; in other words, a wide range of possible program choice. The data would allow an examination of reception behaviour across several programs.

My objective for the students was that they consciously examine how people experience media so that they become more aware of the design requirements of program production. For me, the project resulted in fifty-five completed questionnaires yielding self-reports of time and location of television viewing, number of viewers in the room, activities by the student and others while watching television, how many times the student left the room during the viewing period, programs and television stations watched, attention to commercials, use of a remote control, and who made program choices.

In addition to the self-report questionnaires, ten students volunteered to videotape on their home VCRs what they were watching. I supplied the videotape. The recordings were to capture all transmission elements including breaks and commercials as well as programs in the viewing sessions. A total of eight videotapes were returned.

Sheridan College is a provincially funded college of applied arts and technology located in an upper middle class suburb of Toronto. I have been an instructor in the Media Arts Department of Sheridan College since 1980 and have developed several screening and production courses for young-adult learners training for professional production careers in film, television, audio and new screen technologies. Students in the Department tend to be male, white, middle class, and have grown up in southern Ontario suburbs or small towns. These are young people who have grown up in a television culture. While the context of their viewing may reflect youthful energies and student lifestyles, the recordings they submitted indicated mainstream program choices and viewing styles.

This study has assumed that time in popular cultural forms such as television is a reflection of more generally held societal conceptions of time. There are connections between time and structure in media. Barry Truax has noted in regard

to radio that "the listener's subjective sense of time flow can be altered by factors such as the number of subdivided programming units, the complexity of their organization, and their redundancy (at both the level of form and content)".[82] As in music, structural aspects of television are crucial in constructing a sense of time in broadcast media.

Robert Ornstein lists four dimensions of time experience: short time apprehension, duration, cultural temporal perspective, and simultaneity/succession.[83] David Bordwell and Kristin Thomson examine order, duration, and frequency as distinguishable temporal factors in their classic, Film Theory.[84] In Sight, Sound, Motion: Applied Media Aesthetics, Herbert Zettl cites three factors that influence how people feel about time in media: the relevance of program events to the viewer; "event intensity", that is, whether high or low energy events are being depicted on screen; and the density of screen events. According to Zettl, screen productions can be considered to be high density if "many things occur within a relatively brief clock-time period".[85]

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[82] Truax, p. 165.
[83] Robert E. Ornstein, On The Experience of Time, (Harmondsworth, Penguin Books, 1969), p. 102.
[84] David Bordwell and Kristin Thomson, Film Art: An Introduction, 2d ed., rev. (New York, Alfred A. Knopf, 1986), pp. 87-89.
[85] Herbert Zettl, Sight, Sound, Motion: Applied Media Aesthetics, 2d ed., rev. (Belmont, CA, Wadsworth, 1990), p. 245.

Time in television is both objective and subjective. Time can be measured, and experienced. The clock-time duration of a program or period of viewing is an objective measure. Time is also subjective and felt. Some events seem to take a longer time than others even though their objective measures are the same. A duration can include various orderings of events. These sequences can be smooth or choppy, and can include repetitions which set up rhythmic expectations. Both duration and sequence, structural elements in the television text, can affect the subjective experience of time.

The temporality depicted on screen is another aspect of time in media. Events can appear to take place in the present, past, future, or are happening live, right now. These depictions affect the subjective experience of the viewer in addition to providing objective information about the events being presented.

The time sense of television results from its structure, from content on screen, and from viewer expectations. This study emphasizes structural aspects of television. I chose to examine three main structural elements; namely, density, sequence, and temporal perspective, as sites of a discourse of time in television. I identified these elements in the television text based on broadcast codes and conventions of production practice.

Density is a measure of the number of events in a period of time. Therefore, it is based on the duration of individual units in a sequence. A high density structure consists of many short duration units. A low density structure implies longer duration units of information, a slower pace. Truax characterizes the relationship of a listener of low density sound as having a "longer-term relationship" with a sound, for complete understanding.[86] Density is a measure of the frequency of programming units.

I derived unit durations by first identifying individual content items, similar to those Williams found in his medium-range analysis of flow. Units are distinguished by both content and function. An advertisement is one unit, station identification another unit, a section of the program itself as a further unit. These transmission units are labelled as "events" in the videotape data. An example of one coded videotape, Videotape 1, is shown in Appendix 2. The first transmission unit recorded on this tape is the program unit Transformers which lasts for 466 seconds. The eleventh transmission unit on this tape, event 11, is a 30 second advertisement for GI Joe. The eighth unit, event 8, indicates that the viewer switched channels after 6 seconds of Transformers program to Tazmania, as can be seen by the change from YTV to CFTO.

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[86] Truax, p. 45.

Truax describes program sequence as "rhythmic structure". He notes that, on radio, program units occur in sequences of various durations. The examination of sequence in this study, however, is more a measure of the heterogeneity of television. Sequence here is an examination of the specific progression of content in flow, described by Williams as an "undiscriminating sequence".[87]

Temporal perspective is a third aspect of time which has been seen to be particularly relevant to broadcast media. Truax notes that technological extensions of audio such as recording have confounded the relationship between past and present. When we listen to recorded music on the radio, is it an experience of the past or the present? This study has employed temporal perspective categories of past, present, and future, as well the category "now" which indicates live transmission. Ornstein describes "now" as a fleeting, immediate present. Although the viewer in his/her living room is miles away from the events on screen, the immediate experience of events unfolding as one watches "now" has an urgency, unlike the more distanced observation of recorded events on screen.

Mode of address is an extension of these temporal context categories. Most films present a world for observation by

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[87] Williams, Television: Technology and Cultural Form, p. 105.

the audience. This film world is usually a third-person presentation of dramatic events for a non-participant spectator. Sometimes a narrator or main character addresses the audience in personal terms, describing events in the first person, such as "I remember when...". Television also employs a further mode of address, the second-person "you". When an announcer exhorts the viewer to "buy this product" or to "stay tuned", s/he is speaking directly to the viewer as "you". This second-person mode of address takes place in the "now" but hails the viewer in a more personal and imperative tone. According to Herbert Zettl, second-person direct address invites participation on the part of the viewer.

Truax suggests that syntactical conventions clarify how one temporal context is embedded in another.[88] I relied on this "punctuation" to discern temporal perspective in this study. Action, dialogue, costume, setting, and cinematic techniques such as the use of special transitions, colour, and other effects are all employed to suggest different historical time periods on television. Mode of address was derived from codes such as camera point of view, and dialogue cues.

I am arguing that time in television is the product of its structure, which results in turn from both transmission flow, and viewer behaviour, mediated by contextual factors.

[88] Truax, p. 115.

What stations transmit, therefore, is only the beginning of an understanding of television time. Broadcast flow needs to be examined in terms of both text and reception if the social and cultural meanings of television are to be understood. How do viewers participate in flow? Do they "go with the flow" of images and sounds piped to them, or do they actively intervene in this stream of programs, station breaks, commercials, and public service announcements? What is the text that results from this intervention? Also, under what conditions do people watch television. What opportunities are there for viewer agency? Where do they watch? Do they watch alone or with others? What else are they doing? I examined television flow in the programming watched by the sample of college students, and in their answers to questions about the situation in which this viewing took place.

A) Reception

i) Where and when

Tables 1 to 4 show the time and location of television viewing for the forty-seven male and eight female students who carried out the television viewing assignment. Questionnaire responses show that most of the students watched television at home, in multipurpose rooms such as the living room or a basement recreation room. The students tended to watch in the evening, the 6 pm to 11 pm time period, or later. There was high non-response to a question concerning the day on which they carried out the viewing assignment, probably due to questionnaire layout.

Table 1 Location of viewing

Home	45	81.8%
Friend's	4	7.3%
Parent's	2	3.6%
Residence	4	7.3%
	55	100%

Table 2 Room of viewing

Living room	28	50.9%
Rec/family room	13	23.6%
Bedroom	5	9.1%
Den/office	4	7.3%
Tv room/lounge	5	9.1%
	55	100%

Table 3 Time of viewing

6am-noon	3	5.5%
noon-6pm	4	7.3%
6pm-11pm	38	69.0%
night	9	16.4%
no answer	1	1.8%
	55	100%

Table 4 Day of viewing

Monday	6	10.9%
Tuesday	3	5.5%
Wednesday	5	9.1%
Thursday	11	20.0%
Friday	3	5.5%
Saturday	6	10.9%
Sunday	2	3.6%
no answer	19	34.5%
	55	100%

34, that is, 62% of the students reported that they watched television for the required minimum of ninety minutes. 19

students reported longer viewing sessions. Table 5 shows the distribution of viewing duration.

Table 5 Viewing duration

90 mins	34	61.8%
100-120 mins	15	27.3%
150-270 mins	4	7.3%
no answer	2	3.6%
	55	100%

ii) Distractions

More than half, 53% of the students watched television with others. The average number of viewers including the student respondent, was 2.25. Table 6 shows the distribution of viewer groupings, which ranged from one to seven viewers.

Table 6 Number of viewers

View alone	26	47.3%
2 viewers	10	18.2%
3 viewers	7	12.7%
4 viewers	7	12.7%
5 or more viewers	5	9.1%
	55	100%

Almost all of the student viewers reported that they were engaged in at least one other activity while watching television. Three students reported four activities in addition to television viewing. Over 56% of all the students were involved in two other activities while watching television. The students reported eating, drinking, talking, answering the telephone, reading and smoking. Two students reported that they were working on a computer during the television session. Individual students also reported listening to music during commercials, cleaning, playing cards, doing homework, drawing, exercising, building a model, cooking, paying the paperboy, playing the guitar, and playing chess while watching television.

Table 7 shows the frequency of other activities the students were engaged in during television viewing, according to

their self-reports. Students engaged in an average of 1.87 activities in addition to television viewing.

Table 7 Viewer activities while watching television

No other activities	2	3.6%
1 other activity	14	25.5%
2 other activities	31	56.3%
3 other activities	5	9.1%
4 other activities	3	5.5%
	55	100%

53% of the student respondents reported that other activities were going on in the same room while they were watching television. Eleven students reported other people talking or having telephone conversations. Eating, drinking and smoking by others were mentioned ten times. Roommates or family members doing homework, drawing, working at a computer, doing laundry, cleaning, and playing cards were reported also. Some students reported noise or movement by pets, someone sleeping in the same room, and radio, stereo, or computer simulations occurring during the television viewing session. Table 8 shows the frequency of other activity in the room while students were watching television. Students reported an average of 0.76 other activities occurring in the room while they were watching television.

Table 8 Other activity in the room

No other activity	26	47.3%
1 other activity	19	34.5%
2 other activities	7	12.7%
3 other activities	3	5.5%
	55	100%

Only three viewers reported staying in the room for the entire television viewing session. Forty-eight of the fifty-five student viewers, that is, over 87% reported leaving the room at least once. Table 9 shows the number of times students left the room during the viewing period. On average, student viewers left the room 3.43 times.

Table 9 Viewer leaving the room

Did not leave	3	5.5%
Left 1 time	6	10.9%
Left 2 times	7	12.7%
Left 3 times	12	21.8%
Left 4 times	12	21.8%
Left 5 times	6	10.9%
Left 6 times	2	3.6%
Left 7 times or more	3	5.5%
no answer	4	7.3%
	55	100%

It might be expected that the number of viewers would have a relationship to viewer activity, other activities in the room, and perhaps how many times the student viewers left the room. Table 10 shows averages for each of these in relation to the number of viewers watching television. The number of viewer activities in addition to television was greater for groupings of two and three viewers. As might be predicted, the number of other activities in the room reported by student viewers tended to increase as the number of television viewers increased. The highest number of other activities in the room were reported by students viewing television with two others. There appears to be no pattern in terms of viewers leaving the room, however. Those who

watched television alone, with one other, and with at least four others all left the room at least three times. Students viewing with two others left the room during the television session more frequently than did those in other viewer groupings.

Table 10 Average viewer activities, other activities in the room, and viewers leaving the room, related to number of viewers

No. of Viewers	n	Average Viewer Activities	Average Other Activities	Average Leaving Room
1	(26)	1.77	0.42	3.64
2	(10)	2.4	0.6	3.60
3	(7)	2.14	1.88	4.14
4	(7)	1.43	1.0	2.14
5+	(5)	1.6	1.0	3.0

iii) Programs and channels

Table 11 shows that almost 70% of the students reported watching either two or three programs, as one might expect in a ninety minute viewing period. This is an average of 2.84 programs per student viewer.

Table 11 Number of programs watched

Watched 1 program	7	12.7%
2 programs	19	34.5%
3 programs	19	34.5%
4 programs	3	5.5%
5 programs	0	0
6 programs	3	5.5%
7 or more programs	4	7.3%
	55	100%

The thirty-four students who reported watching television for 90 minutes viewed an average of 2.71 programs. The fifteen students who reported watching for 100-120 minutes averaged 3.06 programs. It seems reasonable that the longer the viewing duration, the more programs a person would watch. For this reason, I divided the students into 90 minute, and longer than 90 minute viewing groups when examining possible distractions to television viewing.

Tables 12-15 show the relationship between the average number of programs watched and the number of viewers, number of viewer activities in addition to television viewing, number of other activities in the room, and how many times the student respondent left the room while viewing. Averages

for 90 minute, and more than 90 minute viewing durations are shown also.

Table 12 Average no. programs and no. viewers

No. of Viewers	All students	n	No. of Viewers	90 mins	n	90+ mins	n
1	3.08	(24)	1	2.71	(14)	3.66	(10)
2	2.5	(10)	2+	2.07	(20)	3.1	(8)
3	2.57	(7)					
4	3.57	(7)					
5+	2.8	(5)					

Average number of programs watched

Table 13 Average no. programs and viewer activities

No. Viewer Activities	All students	n	90 mins	n	90+ mins	n
0	--	(2)	--	(1)	--	(1)
1	3.92	(13)	3.14	(7)	4.0	(6)
2	2.61	(31)	2.61	(23)	2.63	(8)
3+	2.71	(7)	2.5	(4)	3.0	(3)

Average number of programs watched

Table 14 Average no. programs and other activities in room

No. Other Activities	All students	n	90 mins	n	90+ mins	n
0	2.68	(25)	2.87	(15)	2.4	(10)
1	3.61	(18)	2.67	(12)	5.0	(5)
2&3	2.4	(10)	2.43	(7)	2.3	(3)

Average number of programs watched

Table 15 Average no. programs and no. of times viewer left

No. Times Leave Room	Average number of programs watched: All students	n	90 mins	n	90+ mins	n
0	3.6	(3)	--	(2)	--	(1)
1&2	3.6	(12)	2.33	(6)	5.0	(6)
3	2.82	(11)	2.22	(9)	--	(1)
4	3.08	(12)	3.38	(8)	2.5	(4)
5+	2.27	(11)	2.66	(6)	1.8	(5)

To summarize, there does not appear to be a pattern in the relationship between the number of viewers and the number of programs seen during one television session. Students who watched with three others watched more programs on average, followed by those who watched alone. However, it was consistent across both viewing durations that those who reported doing one other activity while viewing television watched more programs on average than those reporting more activities. It should be recalled that eating, drinking, and smoking were a large part of the activities reported by the student viewers. Similarly, students reporting one other activity by others in the room tended to watch more programs than those reporting more activities by others. This relationship breaks down when the duration of the viewing session is taken into account, however. On average, students who left the room up to two times while watching television reported seeing more programs than those that left the room three or more times.

Table 16 shows the number of channels that viewers watched. 64% of the student viewers reported watching two or three channels. On average, the students watched 2.22 television channels. Only about one quarter of the students reported staying with one television station. Viewers who watched for 90 minutes averaged 1.94 channels whereas 100-120 minute viewers averaged 2.6 channels.

Table 16 Number of channels watched

Watched 1 channel	15	27.3%
2 channels	23	41.9%
3 channels	12	21.8%
4 channels	2	3.6%
5 channels	2	3.6%
6 or more channels	1	1.8%
	55	100%

Tables 17-20 show the relationships between the average number of channels watched and the number of viewers, the number of viewer activities in addition to television viewing, the number of other activities in the room, and the number of times the student viewer left the room.

Table 17 Average no. channels and no. of viewers

Average number of channels watched							
	All students			90 mins		90+ mins	
No. of Viewers		n	No. of Viewers		n		n
1	2.42	(26)	1	2.21	(14)	2.91	(11)
2	1.9	(10)	2+	1.75	(20)	2.13	(8)
3	1.86	(7)					
4	2.29	(7)					
5+	1.6	(5)					

Table 18 Average no. channels and viewer activities

No. Viewer Activities	Average number of channels watched: All students	n	90 mins	n	90+ mins	n
0	--	(2)	--	(1)	--	(1)
1	2.21	(14)	2.0	(16)	2.71	(7)
2	2.0	(31)	1.96	(23)	2.13	(8)
3+	2.29	(7)	2.0	(4)	2.67	(3)

Table 19 Average no. channels and other activities in room

No. Other Activities	Average number of channels watched: All students	n	90 mins	n	90+ mins	n
0	2.31	(26)	2.2	(15)	2.45	(11)
1	2.32	(19)	1.8	(12)	3.0	(5)
2&3	1.8	(10)	1.57	(7)	2.33	(3)

Table 20 Average no. channels and no. of times viewer left

No. Times Leave Room	Average number of channels watched: All students	n	90 mins	n	90+ mins	n
0	2.0	(3)	--	(2)	--	(1)
1&2	2.76	(13)	2.33	(6)	3.14	(7)
3	2.17	(12)	1.78	(9)	--	(1)
4	2.0	(12)	1.88	(8)	2.25	(4)
5+	1.73	(11)	1.83	(6)	1.6	(5)

Relationships seen in the number of programs watched by students in their television viewing period appear to hold also for the number of channels they reported watching. Students who watched alone or with three others reported watching the most television stations. Those who watched for longer time periods tended to watch more channels. However, there appears to be little association between the number of channels and number of activities that viewers reported

engaging in while watching television. The number of other activities occurring in the room seemed to be associated with fewer channels, on the other hand. Students reporting two and three other activities going on around them watched fewer channels than those reporting up to one of these possible distractions. As with the number of programs, those who left the room up to two times reported seeing more channels than those leaving the room more often. There appears to be an inverse relationship between leaving the room and the number of channels that the student viewers reported watching.

iv) Control

Forty-two of the fifty-five students, 76% of the sample, reported using a remote control in their television viewing. Thirty-five of these students reported further that they themselves operated the remote control. Four students shared the remote with others. Only three students reported that another person operated the remote control.

Forty-three of the fifty-five students in the study, 78%, indicated that they themselves made all program decisions. Eight of these students, 19%, shared decision-making. Only two students reported that another person decided what programs to watch. There was only one case in the sample in which the student neither operated the remote nor made program choices. In this study then, the student respondents can be considered to have been in control of the television apparatus and program choice whether they operated a remote device or not. Program decision-making was not influenced by others using the remote control.

The average number of programs watched by viewers with a remote control was 3.93. The average number of channels for this group was 2.36. For the eleven students who did not use a remote control, the average number of programs was 2.45, with an average of 1.82 channels.

Viewers with remote controls who watched for 90 minutes averaged 2.85 programs, and 2.08 channels. Viewers without remote controls who watched for 90 minutes averaged 2.29 programs, and 1.43 channels. 100-120 minute viewers with remotes averaged 5 programs and 3 channels compared to those without remotes who averaged 3.25 programs and 2.5 channels. Using a remote control is clearly associated here with viewing more programs and channels. This is consistent with findings in other research which show that those with remote controls "zap" or switch channels more often than those who need to get up to make changes at the television set.[89] Tables 21 and 22 summarize differences in the number of programs and channels watched by the student viewers with and without remote controls.

Table 21 Remote controls, and average no. programs

	Average number of programs watched			
	All viewers	90mins	100-120mins	150+mins
REMOTE (n=42)	3.93	2.85	5	2.4 (n=5)
NO REMOTE (n=11)	2.36	2.29	3.25	--

Table 22 Remote controls, and average no. channels

	Average number of channels watched			
	All viewers	90 mins	100-120mins	150+mins
REMOTE (n=42)	2.45	2.29	3.25	--
NO REMOTE (n=11)	1.82	1.43	2.5	--

[89] See Carrie Heeter and Bradley S. Greenberg, "Profiling the Zappers," Journal of Advertising Research, 25 (1985), 15-19.

v) Selective attention

On North American television, commercials are scattered through the broadcast schedule in a method known as "trafficking". The intention of advertisers is that viewers whose attention has been aroused by program content will continue watching when commercials appear. For years, however, advertising research has concerned itself with the seemingly wide-spread problem of viewers avoiding television commercials. Television viewers have been considered to be in a continual process of selecting programs and re-evaluating their choices.[90] Commercials can be avoided by zapping with a remote control, by leaving the room, by muting the sound on advertisements, and by directing one's attention elsewhere, that is, by just not paying attention. We have seen in this study that there is a lot of other activity happening along with television viewing. Another dimension of television participation, therefore, is the set of cognitive behaviours that viewers engage in when they mentally tune in and out of the television programming in front of them.

In order to ascertain whether the student viewers were aware of directing their attention to certain parts of the broadcast flow and avoiding others, the questionnaire asked how often they paid attention to commercials. Since these

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[90] Heeter and Greenberg, p. 15.

were media students working for the most part toward careers in television and film production, it seemed likely that they would make an effort to pay attention to all elements of televisicn transmission, including advertisements. This did not turn out to be the case. Only two student viewers reported that they always watched commercials. More than half reported that they rarely or never paid attention to the televised advertisements that occurred during their viewing session. Table 23 shows viewer reports of their attention to commercials.

Table 23 Attention paid to commercials

Always	2	3.6%
Sometimes	20	36.4%
Rarely	24	43.6%
Never	5	9.1%
Other*	4	7.3%
	55	100%

*No answer, no commercials, commercials muted

Table 24 shows attention to commercials related to use of a remote control. Of those who used a remote control, 41% sometimes watched commercials, whereas only 27% of those without a remote sometimes did so. Further, 45% of the students with a remote control reported rarely watching commercials. 46% of those without a remote control, albeit a small number, similarly reported rarely watching commercials. Unlike other research, this data suggests little difference between use of a remote control and reported attention to commercials.

Table 24 Attention to commercials related to use of a remote

Paid attention to commercials	n	Remote control		No remote control	
Always	2	1	2%	1	9%
Sometimes	20	17	41%	3	27%
Rarely	24	19	45%	5	46%
Never	5	3	7%	2	18%
Other*	2	2	5%	--	--
	53	42	100%	11	100%

*No answer, no commercials, commercials muted

In summary, television viewing appears to be only one element in a complex of household activity. The television apparatus is located in a room which accommodates other people and invites other activities. Unlike individualized radio or music listening using portable devices with earphones, television viewing assumes a place within ongoing social activity. The potential for distraction therefore is very high. More than half of the sample reported other activity in the room as they watched television. This appears to have a bearing on viewing practices. The data indicate that fewer programs and channels were watched when more than one other activity was happening in the room.

More importantly, viewers interrupt their own participation by engaging in other activities while watching television. 96% of the sample reported doing something else while watching television. Many of these activities, such as eating, did not require their full attention. A mouthful of food or drink may enhance the viewing moment. However, even

eating requires some attention to the details of preparation and the act of feeding itself. Listening to and engaging in conversation while watching television requires even more redirection of attention. This study suggests that other activities by the viewer may have an effect on the television viewing experience. Although the number of channels did not appear to be affected by viewer activity, more than one other activity by a viewer was associated with a reduction in the number of programs that viewers reported having watched.

Leaving the room implies an even greater interruption in engagement with what is on the screen. Students in this study left the room over three times on average during one session of television viewing. This appears to be usual practice. Those who left the room five times or more tended to report watching fewer programs and channels.

A remote control offers further opportunity to change programs and channels and thereby divert one's attention. Advertising researchers who have examined zapping by viewers note that zappers generally pay less attention to television, and suggest that these viewers use television as an accompaniment to other activities. Males and young adults have been found to be more likely to zap commercials. Heeter and Greenberg suggest that zapping is a viewing style, "a portion of a systematic set of behaviours that fit together

as one among several approaches to watching television".[91] The data in the present study indicate that young adult television viewers are indeed a restless audience whose engagement with the screen is shared with a variety of other activities. In a study of television ratings, Peter J. Danaher describes the television audience in general as "highly dynamic", observing that "channel switching during ad breaks is a small subset of the natural 'comings and goings' that are continually in progress for the duration of the show".[92]

Television viewers appear to be involved in a process of active and selective engagement with the flow of sounds and images presented to them by broadcasters. Their "comings and goings" alter the flow of programming which reaches them. They intervene further by switching from one channel to another. What broadcasters transmit and what viewers see and hear are clearly not the same. The video recordings of student television sessions offer some insight into the television text that reaches viewers. The next section is a discussion of these recordings. It should be noted that the recordings were done by students who reported using a remote control. One exception was the student who submitted tape 3.

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[91] Heeter and Greenberg, p. 18.
[92] Peter J. Danaher, "What Happens To Television Ratings During Commercial Breaks?", Journal of Advertising Research, (1995),p. 40.

B) TEXT

The recordings that the eight student volunteers agreed to videotape on their home videotape recorders, as they were fulfilling the requirement of the viewing assignment, are television texts. These recordings offer an opportunity to examine the text which results from broadcast transmission altered by viewer channel changing. Several aspects of the recordings were examined and coded. A complete list of categories is provided in Appendix 3. I consider individual transmission units, whether program, advertisement, credit, or network logo to be the basic building blocks of broadcast flow.

The videotapes were coded according to program title and channel. They were coded also according to the unit, such as program or advertisement, and intra-program unit such as intro, sting, or credits. Units were categorized according to their type, such as cartoon, drama, news, or interview. Some program or advertisement units include several of these types, and were coded as "multiple types". Another usual unit type is characterized not by live action but by words or illustrations, such as those used in producer credits. Illustrations can consist of drawings or photo images and are often animated. Both still and moving words and illustrations were coded as "graphics". Talk shows such as Oprah Winfrey and David Letterman were distinguished from

current affairs interview programs in unit type coding. News and sports types refer to reportage of current happenings. The documentary unit type which can include both news and sports content, is characterized by a more analytical overview of these events.

There were seventeen different units possible in the television viewing recordings. These ranged from program units, advertisements, and public service announcements, to program stings, and producer logos. The transmission unit began with a change of segment content, or change of channel. If a recognizable image and or sound appeared on the tape, it was considered to be the beginning of a unit, whether it stayed on screen for one second or one minute. On tapes where viewers appeared to be "surfing", each change of station was considered as a separate unit. The rationale was that viewers need to register the program being presented in order to decide to continue moving through the available channels. When channel surfing, the viewer understands the program being presented, even if it is on screen for part of a second. These short duration images and sound are therefore legitimate elements of the television text.

Program material was broken down further into diegetic material such as the body of the program, and various categories of non-diegetic material such as titles, credits, stings, intros and extros. Bordwell and Thomson define a

narrative film's diegesis as the on-screen and off-screen events which comprise the world of the film's story.[93] The body of a television program therefore can be considered to be diegetic material. Titles, credits, stings, and extraneous voice-overs announcing the next program are not part of the story or studio world presented in the program, however. These are non-diegetic elements. Television programs are comprised of both diegetic and non-diegetic material. Viewers can be expected to experience diegetic and non-diegetic program elements as distinct temporal dimensions since these come from different conceptual worlds. Further, because advertiser and producer credits are an attachment to a program's credit roll, and look and sound different from other credits, these were considered separately.

Canadian television audiences, especially those who live in communities close to the United States border, have access to a wide range of American as well as Canadian programming. This is available through subscription to cable service, and on direct-to-home broadcast satellite. The eight student recordings reveal that they watched a typical range of popular channels and programs.

The recordings as a whole consist of transmissions from twenty-two channels which could be identified and several

[93] Bordwell and Thomson, p. 382.

that could not be discerned. Table 25 shows the durations of the television channels recorded by the total sample. The longest viewing duration among all channels is 88.5 minutes for Buffalo, N.Y. channel WGRZ, and the shortest is American public broadcaster PBS at one second. There are 67 minutes of Canadian privately owned network CTV, and 56 minutes of the Canadian Broadcasting Corporation, Canada's national public broadcaster.

Table 25 Channel durations in total recordings of student viewing

Channel	Duration
Canadian channels	
CTV	67 mins
CBC	56.4 mins
TSN	50.4 mins
CITY, Toronto (Ind)	38.2 mins
YTV	35.6 mins
CHCH, Hamilton (Ind)	35 mins
CFTO, Toronto (CTV)	27.3 mins
Community channel	17.6 mins
MUCH	8 mins
Other channels	
"Greek"	5.4 mins
"French"	2.6 mins
TV5	*36 seconds*
Unidentified	62.7 mins
U.S. channels	
WGRZ, Buffalo, NY (NBC)	88.5 mins
Turner Broadcasting	59 mins
WUTV, Buffalo, NY (Fox)	57.5 mins
CNN	40.9 mins
CNN Headlines	39.6 mins
WKBW, Buffalo, NY (ABC)	19.3 mins
Fox	23.2 mins
A&E	5.6 mins
CBS	1.8 mins
PBS	*1 second*

Of the total approximately twelve hours recorded on all eight tapes, ten hours contain program material, two hours

consist of advertisements including program promotions (promos) and public service announcements, and about four minutes contain station identification and other information such as disclaimers. Drama and documentary programs seem the most popular choice for the students who recorded their viewing sessions. Table 26 shows the time durations of different program genres in this sample of eight recordings of student television viewing. These figures do not include credits, titles, and other ancillary program materials. In light of these channel and program choices, the students appear to be a typical southern Ontario television audience.

Table 26 Program type in total recordings of student viewing

Program type	Duration
Drama, incl. sitcom	205.2 mins
Documentary	96.4 mins
News	92.0 mins
Cartoons	74.1 mins
Multiple genres	20.4 mins
Sports	18.7 mins
Interviews	17.5 mins
Music video	9.1 mins
Other*	5.6 mins
TOTAL	538.9 mins**

*includes puppets, other performance
** does not include titles, credits, etc.

i) Density

The duration of each transmission unit in the eight recordings was timed with a stopwatch. In total, program units including both diegetic and non-diegetic elements ranged from 1183 seconds (19.7 minutes) to 1 second in duration. Advertisements were generally 30 seconds in length but ranged from 120 seconds to 1 second. Similarly, promos ranged from 30 seconds to 1 second, and public service announcements from 90 seconds to 9 seconds. Network or station logos ranged from 15 seconds to 1 second in the recordings submitted by students. The average duration of individual transmission units for the total sample was 62.5 seconds. The recordings reveal that, on average, the students watched a different transmission unit almost every minute of their viewing sessions. They watched program material, including titles, credits, stings, etc. in units averaging 94.7 seconds duration. The average for advertisements is 27.5 seconds, and 5.1 seconds for logos. Table 27 shows average unit durations for each unit type in the eight student recordings. Both diegetic and non-diegetic units are included as program units here.

Table 27 Average durations in seconds of individual transmission units

	Total Units	Time	Program	Ad	Promo	PSA	Logo	Oth	All Units
Tape 1	107	7254	170.1	28.1	23.1	49.4	4.7	--	67.8
Tape 2	121	5126	49.9	42.5	26.7	30	5.1	6*	42.4
Tape 3	73	5769	182.3	27.5	15.0	--	5	15*	79.0
Tape 4	81	5127	83.2	25.9	18.0	--	10	--	63.3
Tape 5	93	5311	117.1	25.3	14.8	--	4.5	--	57.1
Tape 6	131	6158	63.3	18.2	18.3	--	5.6	--	47.0
Tape 7	46	3800	129.5	28.5	24	--	5*	--	82.6
Tape 8	60	5978	102.9	--	--	--	5*	--	99.6
TOTAL	712	44523	94.7	27.5	19.8		5.1		62.5

*n=less than 5

The shorter the duration of transmission units, the greater the number of events happening within a given time unit, hence the greater the density of what is being presented on screen. Table 27 indicates that the television text experienced by the student viewers was of very high density indeed.

Another way to look at density is to examine each recording and determine how many units there are in specific periods of time. Since viewers tended to leave the room three times in a ninety minute viewing period, I chose to look at the number of transmission units that viewers were exposed to in thirty minute durations. Table 28 shows the number of units that viewers experienced in thirty minutes of screening time. Here too we see the television text as one in which there are a very high number of different units of content within a relatively brief clock time. Further, the high

density, that is, short duration units that viewers are exposed to, are distributed throughout the viewing period.

Table 28 Number of transmission units in 30 minutes

	1st 30mins	2nd 30mins	3rd 30mins	4th 30mins	TOTAL UNITS
Tape 1	19	35	33	20	107
Tape 2	52	32	37*	--	121
Tape 3	24	16	26	6*	73
Tape 4	34	31	16*	--	81
Tape 5	30	26	37*	--	93
Tape 6	16	51	44	20*	131
Tape 7	16	22	8	--	46
Tape 8	25	11	20	4*	60
AVERAGE ALL TAPES	27	28	27.6	--	712

*less than 30 mins

ii) Temporal perspective

Events on screen can be seen as occurring in the present, the past, the future, and "now", that is, happening live. What is more, time contexts such as present and now, or past and present can be combined, through a variety of cinematic and transmission techniques. Further, visuals and sound can contain differing time periods. The student recordings provide evidence of the complexity of temporal contexts in everyday television broadcasts.

Most screen events in the total sample were situated in the present. Of a total 712 transmission units in all recordings, 513 units or 72% consisted of present tense events both visually and aurally. A total of 624 units included a present tense visual element alone or in combination, and 534 included present tense audio. 78% of all units included the present, whether video or audio. 83% of all visuals and 73% of all sound was situated in the present. There were few visuals or sound with a past or future temporal perspective.

19% of all units included an element of the "now"; that is, happening live in the viewers' immediate experience. In total, 79 units contained visuals coded as "now", and 146 units included "now" sound. 72 transmission units consisted of both visual and aural events happening live, now. 54

units included both present and now elements in combination. A total of 101 units contained now visuals alone or in combination and 171 featured now audio. 14% of all visuals and 24% of all sound was occurring now for the viewers. Table 29 shows the frequency of temporal context categories in the student recordings.

Table 29 Number of transmission units in various temporal context categories

	VISUALS				TOTAL	SOUND			
	Now	Present	Comb*	Oth	UNITS	Now	Present	Comb*	Oth
Tape 1	2	98	6	1	107	10	86	9	2
Tape 2	24	80	14	3	121	41	59	15	6
Tape 3	12	59	2	--	73	17	56	--	--
Tape 4	22	53	5	1	81	48	30	2	1
Tape 5	--	91	--	2	93	--	91	1	1
Tape 6	16	110	4	1	131	25	102	2	2
Tape 7	1	44	1	--	46	2	42	2	--
Tape 8	2	57	1	--	60	3	57	--	--
TOTAL	79	592	33	8	712	146	523	31	12

*includes present and/or now

Mode of address categories include first, second, and third person. In a first-person commentary or second-person direct address with the speaker on screen, both picture and sound have the same mode of address. Picture and sound can be different modes, however. It is usual television practice to have an announcer speak over programming material. During credit sequences, for example, there is often an announcement about the next program and an appeal to stay tuned. In this case, program story visuals continue as third-person address, but the voice-over audio is distinctly second-person.

Mode of address in the recordings emphasizes the second person. 44% of total transmission units included at least one second-person element. 625 units included a second-person unit whether video or audio; 273 units contained both. 473 units contained second-person audio and a further 88 units included second-person audio in combination with third-person audio. 318 units contained second-person visuals and a further 147 units included combinations of second and third-person visuals. 28% of units recorded by the students included third-person address units. 405 units were comprised of at least one element in the third person address mode. 85 units contained visuals and audio in the third person. Table 30 shows the prevalence of various modes of address in each of the recorded viewing sessions.

Tape 30 Number of transmission units in various address mode categories

	VISUALS				TOTAL	SOUND			
	2nd	3rd	Comb*	Oth	UNITS	2nd	3rd	Comb*	Oth
Tape 1	25	67	14	1	107	60	27	16	4
Tape 2	68	26	27	--	121	91	9	12	9
Tape 3	40	25	8	--	73	54	10	7	2
Tape 4	32	31	18	--	81	66	6	6	3
Tape 5	41	35	16	1	93	49	19	15	10
Tape 6	66	30	35	--	131	95	10	11	15
Tape 7	21	15	9	1	46	25	7	11	3
Tape 8	25	15	20	--	60	33	14	10	3
TOTAL	318	244	147	3	712	473	102	88	49

*2nd & 3rd person combined

Most of the viewing time for the students featured the present. Of the approximately twelve hours recorded, over

nine and three quarters consisted of present tense visuals and sound. The present tense was used in all unit types including program material, advertisements, promos, and logos. The next largest number of transmission units, comprising about one and three quarters hours of total broadcast time in the recordings, featured "now" sound. 70% of these units were non-diegetic program materials such as titles, credits, program stings, and producer identification.

In regard to mode of address, the television recordings featured second-person sound. Over four and three quarter hours of the total twelve and a half included second-person audio in which the viewer is addressed directly by an on-air speaker. 40% of these units were non-diegetic program elements, the largest single unit category employing this audio mode.

About five and a quarter hours consisted of present tense visuals, with second-person audio, either alone or in combination with third-person audio. One and a half hours of this combination comprised diegetic program units, and a further one and a half hours were advertisements.

To summarize, what does this data say about temporal perspective in the television text? First, temporal perspective is determined as much by advertisements, network

logos, and non-diegetic program elements as it is by program units which have been the traditional consideration of media theorists. Further, non-diegetic program units feature temporal perspective which differs from the time in diegetic program units. The television text consists of various combinations of temporal perspective. Secondly, an overview of temporal elements in the viewing experience of these students indicates that television is like film, theatre, and other popular media in that it is characterized by events occurring in the present. Similarly, the student recordings consist mainly of third-person audio. Television does not appear to be predominantly a "now" medium as has been suggested by some writers. Only 14% of total recorded time consists of "now" visuals and/or sound, events happening live as the viewer watches. Third, television broadcast is characterized by the persistent presence of second-person direct address to the viewer, particularly through sound. While non-diegetic program elements make up a great deal of this second-person audio, advertisements and diegetic program material also exhibit this more imperative sound modality.

iii) Sequence

Bordwell and Thomson discuss temporal ordering in film as one of the ways that audiences piece plot clues together to create stories. Narrative ordering in film is a formal construct which strings together over time a series of events in cause-effect relationship. Narrative requires temporal connections among story events. In contrast, the television text is a cacophony of disparate, unconnected bits.

Truax has described several methods that radio stations use to hold audiences. These include dynamic range, continuity, and sequence. Television broadcasters also strive to ensure that viewers stay tuned to their channel. Continuity devices such as voice-overs, graphics, stings, and news teasers are all intended to retain the audience over breaks in diegetic program material. Some channels such as MUCH MUSIC use a variety of seamless transmissions, dissolves, and layers of voice-over, to blur the boundaries between transmission units. Other broadcasters such as the CBC require black between commercials and program elements. These production conventions, as well as predictable sequences have developed over years of industry practice.

On television, units are traditionally ordered into strings of program, commercial "pods", and station identification.

This sequence is seen also in the student recordings. Examples from tape 5 and tape 7 which illustrate this pattern of transmission are shown in Appendix 4. These excerpts show sequences in which program intro is followed by program title, diegetic program, program sting, sixty to ninety seconds of commercials and promos, program sting, diegetic program, commercials and promos, program sting, diegetic program, and so on.

Viewers have the ability to change broadcasters' careful sequences by switching channels, however. An examination of the eight videotapes recorded by the student viewers is an analysis of the television text after broadcast sequences have been adjusted by viewer "zapping". The videotapes reveal that the students switched channels a total of 103 times in the twelve and a half hours of recorded viewing. Switching ranged from none to forty-six channel changes in a viewing session. Table 31 shows the extent of channel switching in each of the eight recordings. Table 31 also shows the average durations of program units as well as average duration of all units in each tape, from Table 27.

Table 31 Frequency of channel switching in student recordings, and average unit duration in seconds

	No. of Switches	Total Time	Average Time Pgm* Units	Average Time All Units
Tape 1	3	7254 secs	170.1 secs	67.8 secs
Tape 2	3	5126	49.9	42.4
Tape 3	4	5769	182.3	79.0
Tape 4	7	5127	83.2	63.3
Tape 5	0	5311	117.1	57.1
Tape 6	46	6158	63.3	47.0
Tape 7	10	3800	129.5	82.6
Tape 8	30	5978	102.9	99.6
TOTAL	103	44523	94.7	62.5

*includes both diegetic and nondiegetic program units

There appears to be no correspondence between frequency of channel switching and unit duration. The tape with the greatest number of channel changes did not exhibit the shortest duration of either transmission units or program units in particular. Similarly, the tape with no switching exhibited close to the median of average unit and average program unit durations. Rather than break down broadcast flow into a greater number of units, viewer channel changes appear to maintain unit and program durations within a usual range.

Six of the eight students who videotaped their viewing sessions started their viewing during a diegetic program unit, and another two began with opening program credits. One viewer started with a promo. Of course viewers have more control over what is on screen when they turn the set off. The recordings finished much as they started, however. Four of the student viewers ended their viewing with a diegetic

program unit, and two ended with program credits. One student ended with a promo. None of the viewers started or stopped recording during a commercial.

Table 32 shows the frequency of switching behaviour during various transmission units. More than half of these viewers switched during program material rather than at breaks planned by broadcasters, or during advertisements. Viewers appeared to be switching channels more when they lose interest in program material than during non-diegetic program content such as credits or advertisements. Even when advertisements and program promos are combined, they only account for one-quarter of the channel changes.

Table 32 Frequency of channel switching and transmission unit

	Switches: No.	Switches: %	Total Units	Total Time
Program, diegetic	54	52.4	216	564.8 min
Program, non-diegetic	20	19.4	176	50.0
Advertisement	22	21.3	216	99.1
Program promo	4	3.9	57	18.8
Public Service Announcement	2	2	9	6.1
Logo	1	1	38	30.7
TOTAL	103	100%	712	742 min*

* individual totals add up to more than sample total due to conversions from seconds to minutes

What other factors may be involved in changing channels? Table 33 suggests that there are some differences in the frequency of channel changing during various content types. This table shows the frequency of channel switching during various types of units, distinguishing among content such as

drama, documentary, sports, news, and graphics, whether these comprise programs, advertisements or other non-program units.

Table 33 Frequency of channel switching and type (all units)

	No. of Switches	Total Units	Total Time
Drama	19	127	266.1 min
Graphics, moving & still	17	123	19.7
Documentary	13	48	109.2
Multiple genres	11	150	88.4
News	11	96	92.5
Announcer, direct address	8	47	14.8
Interview	6	10	18.0
Performance	5	10	5.3
Cartoon	4	59	85.6
Demonstration	4	28	12.2
Music video	3	6	9.6
Sports	2	7	17.5
Puppets	0	1	1.2
TOTAL	103	712	742 min*

*individual totals add up to less than sample total due to conversions from seconds to minutes

While Table 33 shows that the greatest number of switches occurred during drama content, this only amounts to one change every fourteen minutes on average. Channel changing during both news and documentary took place on average every eight minutes, however. The frequency of switching during multiple content types is also one per eight minutes. Cartoon content appeared to retain viewers more than any other, with one switch every twenty-one minutes on average. As might be expected, there are more frequent channel changes during graphics, approximately one per minute. Non-diegetic program units such as credits, titles, and producer

logos, as well as station breaks, are times when viewers might be expected to switch channels. These units generally feature still or moving graphics.

Table 34 shows the frequency of channel changes for diegetic program, non-diegetic program, advertisements, and other unit types in relation to each of the content types. Unit types did not appear to have any relationship to channel changes during advertising. 4 of 19, 21% of switching during advertising took place during drama units. 3 of 17, 18% of advertising switches took place during graphics units. Switching during diegetic program material, however, was more frequent among drama, documentary, and especially news programs. 11 of 19 channel changes during dramatic content took place during diegetic program units. 10 of the 13 channel changes in documentary content occurred during the main body of the program also.

Table 34 Frequency of channel switching according to unit and type

	n	Program: Diegetic	Program: Non-dieget	Advert	Promo	Other
Drama	19	11	3	4	1	0
Graphics	17	1	12	3	0	1
Documentary	13	10	0	3	0	1
Multiple	11	0	4	3	3	0
News	11	10	0	0	0	1
Announcer	8	4	1	3	0	0
Interview	6	5	1	0	0	0
Performance	5	3	0	2	0	0
Cartoon	4	4	0	0	0	0
Demo	4	0	0	4	0	0
Mus Video	3	3	0	0	0	0
Sports	2	2	0	0	0	0
TOTAL	103	53	21	22	4	3

Program producers may not intend that their audiences switch channels during the body of television programs, but some content approaches may encourage channel changing. Switching might be expected to occur during already segmented program types such as news or music videos. 10 of the 11 channel changes in news content occurred during diegetic program units, either newsreader or news item footage. 12 of the 17 switches during graphic units took place during non-diegetic program units, as might be expected. Switches during the multiple genres category were almost evenly divided between ads, promos, and non-diegetic program units.

Like other typical viewers, the students in this study adjusted conventional broadcast ordering by changing channels. While much of the traditional sequence of non-diegetic program, diegetic program, and advertisements remained intact in the television texts under study, viewers

did appear to switch from program to other program content. Viewers who switched channels most, those who switched 30 and 46 times during their viewing sessions, appeared to be particularly active program selectors. The student who switched 30 times switched 18 times during diegetic program units and 10 times during non-diegetic program units. Over 93% of his overall viewing consisted of diegetic program material. The student who switched 46 times, switched 25 times during diegetic program units, 7 times during non-diegetic program units, and only 14 times, less than a third of the channel changes, during advertisements or promos. 79% of his viewing consisted of diegetic program material. The student who switched channels 7 times seems to be particularly efficient in that he was able to achieve 81% diegetic program content. This suggests that switching can be an effective reorganization of the television text, enabling the viewer to vary programming, and to restrict viewing to diegetic program material. The student who made 30 channel changes avoided all commercials. The student who switched 46 times also had a comparatively low percentage of commercials and promos in his recording. Table 35 shows percentages of viewing durations for various unit types in each videotape.

Table 35 Percentage time for unit categories in each recorded viewing session

	No. of Switches	Program: Diegetic	Program: Non-dieget	Ad & Promo	Other	Total Units
Tape 1	3	68%	7%	20.5%	4.5%	107
Tape 2	3	65%	8%	24%	3%	121
Tape 3	4	65%	14%	20%	1%	73
Tape 4	7	81%	5%	13%	1%	81
Tape 5	0	70%	7%	22.5%	0.5%	93
Tape 6	46	79%	8.5%	12%	0.5%	131
Tape 7	10	80.6%	4.6%	14.6%	0.2%	46
Tape 8	30	93.4%	6.4%	0	0.2%	60
TOTAL	103					712

Table 36 shows the time of the channel change in relation to the beginning of the viewing session. For many viewers less switching took place in the first thirty minutes of the viewing session. Students who switched often tended to do so more in the third thirty minutes of the viewing period. Since zapping is evidence of engagement with the text on screen, these data indicate that viewers remain attentive throughout a viewing session.

Table 36 When viewers switched channels in relation to total viewing period

	1st 30mins	2nd 30mins	3rd 30mins	4th 30mins	Total Switches	Total Units
Tape 1	0	2	1	0	3	107
Tape 2	1	2	0*	--	3	121
Tape 3	2	2	0	0*	4	73
Tape 4	1	0	6*	--	7	81
Tape 5	0	0	0*	--	0	93
Tape 6	3	8	30	5*	46	131
Tape 7	6	4	0	--	10	46
Tape 8	7	7	14	2*	30	60
TOTAL	20	25	51	7	103	712

* less than 30 mins

Table 37 shows the time of channel switching in relation to the beginning of the transmission unit. In this table it is possible to see how long into a unit the viewers waited before changing channels. The student who submitted tape 6 quickly switched away from advertisements, although he lingered more over program promos. This viewer was able to decide to change programs in about half a minute on average. The student who submitted tape 8 took up to three minutes to change program material. There appears to be little relationship between the speed of switching and the percentages of program content in a viewing session.

Table 37 Average time in seconds from beginning of unit to channel switch

	Program: Diegetic	Program: Non-dieget	Advert	Promo	Other
Tape 1	---	---	2 (1)	---	---
Tape 2	255 (1)	45 (1)	48 (1)	---	---
Tape 3	---	27 (1)	20.6 (3)	---	---
Tape 4	280.5 (2)	---	16.2 (5)	---	---
Tape 5	---	---	---	---	---
Tape 6	33 (25)	4.7 (7)	1.9(10)	16(4)	---
Tape 7	191.4 (7)	7 (1)	18 (2)	---	---
Tape 8	174.5(19)	16.5 (10)	---	---	5(1)

Advertising researchers indicate that viewers change channels not only to avoid commercials but also to see what else is on, and to seek variety. The findings in this study appear to agree. Some studies have shown that one-half to two-thirds of adult viewers regularly switch away from television commercials. In this study, data indicate that for many viewers, advertising comprises about twenty percent

of a viewing session, despite the opportunity for changing channels

In summary, while viewer zapping may change the program content on screen, it does not seem to increase the overall density of the television text, a fundamental aspect of its time structure. In addition, efficient viewers appear to recognize patterns in broadcast sequence, and use them to advantage to restrict the television text to program material. This conflates the ordering of broadcast flow itself. The switching data suggest also that viewers remain engaged with the text throughout the viewing session.

CHAPTER IV

CONCLUSION

CONCLUSION

According to Fredric Jameson the television text provides an opportunity to "escape phenomenology and the rhetoric of consciousness and experience, and to confront this seemingly subjective temporality in a new and materialist way, and in a way which constitutes a new kind of materialism as well, one not of matter but of machinery".[94] Broadcast television exists in three dimensions: as specific technology, as social institution, and as aesthetic form. Television structure is a reflection of these three dimensions. Barry Truax maintains that structure provides radio with variety, continuity and "the apparent 'logic' to hold the attention."[95] In this study, the structure of popular television shows evidence also of a discourse of time.

This study has been an empirical examination of elements of a discourse of time in actual television viewing. It has investigated the viewing practices of a set of college students, and the actual texts of television watched by eight of these students. This study is limited therefore in its emphasis on praxis. Television communication also involves viewer attitudes and competencies, viewing styles, and physiological responses, which have not been dealt with

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[94] Fredric Jameson, "Reading without interpretation: postmodernism and the video-text", The Linguistics of Writing, ed. Nigel Fabb (New York: Methuen, 1987), p. 206.
[95] Truax, p. 161.

here. In addition, the results in this study may be limited to young, male, North American viewers who comprised the sample of television viewers in this research. Only eight viewing sessions were investigated here, another limitation to the generalizations that can be made from this data.

This research began as an attempt to combine quantitative and qualitative research. Qualitative aspects of this methodology need further development, however. The meanings that viewers make of television structure have not been satisfactorily revealed in this study. The data do provide clues to how television structure might participate in social meaning, however. I suggest that the behaviours revealed in the television text, as well as self reports about viewing activities shed light on these communication processes.

This study of television text is based on Raymond Williams' concept of sequence and flow. I consider this study to have improved on Williams' medium-range analysis of flow by extending the period of viewing, and including several genres of programming. Williams examined only news programs at this level of analysis. Further, this study of television has been an examination of viewer contributions to the sequence and ordering of television by switching channels. Williams' analyses did not account for the use of the remote control, which is now wide-spread.

The data in this study show North American broadcast television to be a succession of very short duration units. The data showed transmission units to be an average of 62.5 seconds in duration. This means that television viewers in this study were exposed to different content segments almost every minute. Every thirty minutes of viewing contained an average of 27 to 28 different transmission units. Program material, including both diegetic and non-diegetic elements, lasted only 95 seconds on average. This confirms Raymond Williams' conceptualization of television and challenges the notion that television is primarily a programming medium with interruptions for advertisements and other information. Television is a rapid-fire barrage of content. This study confirms a high degree of change in the television text. Broadcast television is cultural form of very high density.

What is more, viewers appear to maintain an average unit duration similar to that provided by broadcasters, despite their ability to change channels at will. Switching channels did not result in briefer transmission units. Time averages for all units in the eight recordings ranged from 42.4 to 99.6 seconds. The average transmission unit duration in the one viewing session recording where the viewer did not switch channels, was 57.1 seconds. This viewer watched an evening of Buffalo, New York commercial station WGRZ. The student who submitted tape number 6 changed channels 46

times, but the average unit duration for his viewing session was 47 seconds. The longest average time per transmission unit, 99.6 seconds, was achieved by the student who submitted tape number 8 which showed 30 channel changes.

This suggests that viewers conform to an expected time duration in television. Viewers appear unwilling to increase unit durations to speeds faster than commercial broadcasters normally transmit. Their options for slowing down the speed of change on television are fewer, of course. Switching channels can only decrease unit duration, that is, increase the speed of flow. Choosing non-commercial television stations such as Canadian public broadcaster TVOntario, or the Public Broadcasting System in the United States would be one of the few options available for reducing unit density.

It is generally thought that viewers change channels to avoid advertisements and to find program material. Over 80% of the students who answered the questionnaire reported that they paid attention to commercials "rarely" or "never". However the viewing data indicate that viewers tolerate commercials more than is popularly thought. While one viewer in this study managed to avoid advertisements completely, for the others, advertising filled up to 20% of their viewing time. Of course, this videotaped viewing data does not take into account viewers' diversion of attention to

other activities while watching television, muting advertisements, or leaving the room.

It is presumed also that viewers change channels during advertisements. In this study over half of the channel changes occurred during diegetic program segments. Viewers switched more often during news and documentary programs than they did during drama content, suggesting that switching frequency may be associated with certain types of content or form. Switching was most frequent during news, documentary, and graphics which are often used in station breaks and credits, and least frequent during cartoon programs. Viewers appear to switch channels mainly for program variety.

Some viewers could be considered to be more efficient than others. There were no channel changes on tape number 5, Buffalo channel WGRZ. This tape consisted of 70% diegetic program content and 22.5% ads and promos. Tape number 8 showed 30 channel changes, 93.4% diegetic program content and no ads or promos. This viewer appears to have successfully avoided all commercials in the viewing session documented in this study. However tape number 4 showed only 7 channel changes, 81% diegetic program content and 13% advertisements and program promos. Viewers who are able to change program content to avoid advertising and non-diegetic content with an economy of channel changes may be considered

to be more efficient. For the more efficient zappers in this study, 79% to 93% of their viewing consisted of diegetic program content. The speed at which they switched away from non-program units such as advertisements did not seem to be related to this efficiency. Viewers are able to manipulate broadcast sequence to avoid commercial messages but not all viewers appear to do so. Some viewers may use other avoidance behaviours.

Television has been accused of being a medium for those with a short attention span. The opposite appears to be the case, in this research. Viewers changed channels throughout the viewing periods studied here. Television appears to be an exercise in information-processing throughout the viewing period. In this study viewers were active participants clearly in tune with quick and continual changes in content. The data provide further indications that there may be different styles in regard to watching television. While three of the viewers switched channels more frequently in the last third of the viewing period, three others distributed their zapping more evenly.

To summarize, television offers a regulated and predictable sequence which viewers are able to negotiate with some skill. Television is both a time discipline which appears to have had an impact on viewer behaviour, and an opportunity, albeit limited, for viewer autonomy. The sequence of content

in television viewing, while predictable, is clearly discontinuous. What is more, viewers work to further fragment television content within an already dense sequence of transmission units. Viewers in this study appeared to augment the variety of content in their viewing, while keeping the average duration of their viewing units similar to that of broadcast convention.

In this study television temporality has been seen to involve an agreement about the frequency of change. This mobility is situated overwhelmingly in the present. The present was the most usual temporal context in the many transmission units recorded on the student viewing videotapes. 72% of the total units recorded, consisted of the present in both picture and sound. Over 80% of the units depicted a visual present. 73% exhibited an aural present. Since visuals and sound can be of differing temporal contexts, the extent of the present tense in this data is greater than these figures suggest. This appears to be evidence that the television text watched by the students in this study is a logic of the present. Very few transmission units in the recordings represented events as occurring in the past. These student viewers were involved in a world which appeared to have no connection to history.

It is a world in which viewers are continually subjected to demands, however. The data in this study indicate the strong

presence of the imperative second-person mode of address. More units consisted of second-person address than the observational third-person mode. Almost half of all units consisted of second-person visuals in which the person on screen looked directly at the viewer. Two-thirds consisted of second-person audio in which the voice directly addressed the viewer as "you". These figures do not represent the full extent of second-person address in the television recordings because an additional 21% of the units included a combination of both second and third person visuals, and a further 12% of the units consisted of audio combining both of these modes of address. Television time exists not only in the present but also directly addresses the viewer, simulating a sense of the "now". Television combines the predictability of a recorded present with a heightened immediacy. The data in this study show the workings of anxiety in the mode of address of the broadcast text.

This study points also to a dearth of first-person address in television. The data appear to corroborate descriptions of the decontextualized and depersonalized nature of the television text. In the television examined here, there is no "I", only a depersonalized "you" or "them". The television text is not the sharing of life experience. Images of events without connection to personal storytelling, or grounding in time, stream on in front of the television audience.

In this study television viewing has been shown to reflect the discontinuities that characterize daily life. The questionnaire data confirm previous research which has noted the integration of television into domestic social activity. For half the viewing time studied here, television viewing was only one of the events going on in the room. In most cases, viewers themselves were engaged in other activities while watching television. In addition, television viewers left the room more than three times in an average ninety to one hundred minute viewing session. Television viewing appears to be a process of continual focusing and refocusing of attention. Indeed, viewers in this study acknowledged that they consciously averted their attention from commercials, and presumably refocused later on other transmitted material. It seems to me that these viewing practices would exaggerate the change and discontinuity already observed in the television text.

The television text has been seen here as a collaboration between transmission practice and viewer participation. The data in this study suggest that television viewers are not only familiar with but also are adept at managing television flow. Viewers seem habituated to the structure of television time. They are active participants in the transient barrage of television flow. Viewers appear to take for granted a

text of subject matter that has no connection other than temporal proximity.

Television is an array of commodities in a world of the present. Time direction is suspended in favour of a process of instantaneous choice. This is a process of consumption. There is evidence here of broadcast temporality serving to inscribe the viewer as consumer, as social critics have noted.[96] The data here support the idea that the text of North American popular television enforces a view of the world based on consumption for its own sake. According to Stephen Heath, the pluralism of television is also a situation which relativizes political meaning. Television thereby neutralizes political analysis and sets the parameters for sophisticated processes of social control.[97]

Understanding the processes at work in the construction of television time has shown some of "the compulsions to which people are exposed or which they impose on themselves".[98] There is evidence in this study that the structure of television embodies a pattern of temporal social restraint that goes unacknowledged by viewers. The time embedded in television flow has become taken for granted in the symbolic world of contemporary social relations. Cultural texts can

[96] See Nick Browne, "The Political Economy of the Television (Super) Text," Quarterly Review of Film Studies, 9 (1984), 174-195.
[97] Heath, p. 290.
[98] Elias, p. 33.

be seen as a site of struggle in the production of meaning, however. The debate around who has the upper hand in creating meaning out of television has been outlined in Chapter II. Television has been defended as democratic by those whose interests are served by broadcast, and condemned by social critics who see in television an accelerating loss of political meaning and personal control. As Raymond Williams noted, television is part of the very active world of everyday conversation and exchange and can serve to challenge the popular imagination.[99] Popular audiences can be the source of new uses of communication technologies. Like Williams, it is my opinion that popular culture such as television can play a role in social renewal. Television's structural discourse of time can be observed already in interactive computer-based communications which are presently under development.

In conclusion, television technology has provided a range of opportunities for its use. For several decades, North American broadcasters have been developing practices which exploit these technological opportunities. These practices derive from the social, political, and economic contexts in which they operate. Television technology is not merely a determining electronic apparatus. It is popular cultural

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[99] Stephen Heath and Gillian Skirrow, "An Interview with Raymond Williams," Studies in Entertainment, ed. Tania Modleski, (Bloomington, IN: Indiana University Press, 1986), p. 5.

form dependent upon social conditions. Television practices have resulted in widely accepted modes of communication with naturalized conventions. Television conventions can be seen in the structural properties of the broadcast text, and in the practices of its viewers. This study has examined transmission flow in both text and reception. The intention has been to investigate its implications in the construction of a discourse of time. In this study, television viewing was part of the general hubbub of domestic life. Viewers were knowledgeable participants in the rapid change-a-minute demands of television time.

APPENDIX 1

TV VIEWING ASSIGNMENT

TIME AND SPACE IN MEDIA PART II TV VIEWING ASSIGNMENT
DUE FRIDAY MARCH 25, 1994

Watch 90 consecutive minutes of television, any program or program segments, any channel. Fill in this form.

NAME: ______________________________ CLASS CODE: __________

of viewing:
Time of day of viewing: from _______ am/pm to _______am/pm (circle one)

2. Location of viewing: Where: ____________________________
What specific room: ______________________

3. Number of other viewers watching at the same time:

4. What other activities you were engaged in while watching tv, eg. eating, reading, talking, playing cards, ...

5. What other activities were happening in the same room while you were watching tv:

6. How many times did you leave the room during the 90 minute viewing period:

7. How many different programs did you watch (approx):

8. List the channel/s you watched, starting with the channel you watched the most. Indicate network or station letters.

9. List the subject matter of programs you watched starting with the program you watched the most: eg. movie, newscast, sitcom, sports, cartoon, police drama, documentary, wildlife show, etc. If undecided, list the title of the program.

please see over

TV VIEWING ASSIGNMENT PAGE 2

10. How often did you pay attention to commercials? (circle one)

always sometimes rarely never no commercials

11. Did you use a remote control? (circle one) yes no

12. Who decided what program/s to watch: (circle at least one)

self father mother brother sister female friend male friend

other (specify)

13. Who operated the remove control? (circle at least one)

self father mother brother sister female friend male friend

other (specify)

APPENDIX 2

VIEWING SESSION VIDEOTAPE DATA

VIDEOTAPE 1

EVENT	TIME	UNIT	V.ADD	A.ADD	V.TMP	A.TMP	TYPE	PGM TITLE	CHANNEL
1-001	466	pgm	3	3	prs	prs	car	Transformers	YTV
1-002	28	pgm-t	3	2&3	prs	now&p	car	Transformers	YTV
1-003	5	pgm-p	2	na	prs	prs	grp	Transformers	YTV
1-004	192	pgm-a	2&3	2&3	now&s	now&s	pup	The Alley	YTV
1-005	15	pmo	3	2	prs	now	car	Video Arcade	YTV
1-006	1	lgo	2	na	now	now	grp	YTV logo	YTV
1-007	6	pgm	3&2	3	prs&n	prs	car	Transformers?	YTV
1-008	42	pgm-i	3&2	2	prs	prs	car	Tazmania	CFTO
1-009	30	pgm-c	3	3	prs	prs	car	Tazmania	CFTO
1-010	535	pgm	3	3&2	prs	prs	car	Tazmania	CFTO
1-011	30	ad	3	2&3	prs	now	car	GI Joe	CFTO
1-012	30	ad	3	2&3	prs	now	mul	Mighty Max	CFTO
1-013	30	pmo	3	2&3	prs	now	car	Pink Panther	CFTO
1-014	30	pmo	2&3	2&3	now	now	mul	Goofy contest	CFTO
1-015	30	ad	3	3	prs	prs	dra	Easter Seals	CFTO
1-016	15	pgm&c	3	3	prs	prs	car	Tazmania	CFTO
1-017	255	pgm	3	3	prs	prs	car	Tazmania	CFTO
1-018	30	ad	3	2&3	prs	now	dra	GI Joe	CFTO
1-019	30	ad	3	2	prs	prs	car	Thumbelina film	CFTO
1-020	60	psa	2&3	2	prs	prs	mul	Recycle	CFTO
1-021	30	ad	2	2	prs	prs	mul	Sooters photo	CFTO
1-022	282	pgm	3	3	prs	prs	car	Tazmania	CFTO
1-023	30	ad	3	3	prs	prs	mul	Power Rangers	CFTO
1-024	30	ad	2	3&2	prs	prs	mul	Golden Grahams	CFTO
1-025	30	ad	3	3	prs	prs	mul	Transformers	CFTO
1-026	15	ad	2	3	prs	prs	mul	Pizza Hut	CFTO
1-027	15	ad	2	2	prs	prs	mul	Pizza Hut	CFTO
1-028	30	pmo	2	2	prs	now	doc	Leafs This Week	CFTO
1-029	22	pgm	3	2	prs	now	car	Tazmania	CFTO
1-030	9	psa	3	2	prs	prs	nws	For Kids Sake	CFTO
1-031	28	psa	3	2&3	prs&p	prs	mul	see others pov	Fox?
1-032	29	ad	3&2	2	prs	prs	dra	Mattel	WUTV
1-033	5	lgo	2	2	prs	prs	grp	Fox Channel 29	WUTV
1-034	5	pgm-t	2	2	prs	now	grp	Action Theater	WUTV
1-035	60	pgm	3	2	pst	prs	car	X Men	WUTV
1-036	60	pgm-i	3	3	prs	prs	car	X Men	WUTV
1-037	18	pgm	3	3	prs	prs	car	X Men	WUTV
1-038	129	pgm	3	3	prs	prs	car	X Men	WUTV
1-039	5	lgo	3	2	prs	prs	car	Fox, right back	WUTV
1-040	30	ad	3	2	prs	prs	dra	Mky Trbl, film	WUTV
1-041	30	ad	3	3	prs	prs	mul	Cool Tools	WUTV
1-042	30	ad	3	2	pst&p	prs	mul	Quik drink	WUTV
1-043	20	pmo	3	2	prs	prs	car	Batman	WUTV
1-044	4	lgo	3	2	prs	prs	car	Fox	WUTV
1-045	434	pgm	3	3	prs	prs	car	X Men	WUTV
1-046	4	lgo	3	2	prs	prs	car	Fox, right back	WUTV
1-047	5	pmo	3	2	prs	prs	car	Merry Melodies	WUTV
1-048	20	pmo	3	2	prs	prs	car	Carmen Santiago	WUTV
1-049	30	ad	3	2	prs	prs	dra	My Little Angel	WUTV
1-050	30	ad	3&2	2	prs	prs	dra	Chuck E Cheese	WUTV
1-051	30	ad	3	2	prs	prs	mul	Leaps&Bnds park	WUTV
1-052	30	pmo	3	2	prs	prs	mul	W Wrestling Fed	WUTV

1-053	5	lgo	3	2	prs	prs	car	Fox, right back	WUTV
1-054	544	pgm	3	3	prs	prs	car	X Men	WUTV
1-055	5	lgo	3	2	prs	prs	car	Fox	WUTV
1-056	30	ad	2	2	prs	prs	car	Gameboy	WUTV
1-057	30	ad	3	2	prs	prs	dra	MajrLeagII film	WUTV
1-058	30	ad	2	2	prs	prs	mul	Bubble yum	WUTV
1-059	40	ad	2	2	prs	prs	mul	Fox29 Sweepstak	WUTV
1-060	10	lgo	2&3	2	prs	prs	car	Fox	WUTV
1-061	30	pgm-c	2	2	prs	now&p	car	X Men	WUTV
1-062	60	psa	3	3&2	pst&p	pst	dra	Totlly for Kids	WUTV
1-063	2	ad	1	2	prs	prs	dra	Chuck E Cheese	WUTV
1-064	135	pgm	3	3	prs	prs	car	Carmen Santiago	WUTV
1-065	5	lgo	3	2	prs	prs	car	Fox, right back	WUTV
1-066	23	ad	2	2	prs	prs	car	Thumbelina film	WUTV
1-067	7	ad	2	2	prs	prs	car	I'm Mad film	WUTV
1-068	30	ad	2	2	prs	prs	car	Kraft macaroni	WUTV
1-069	30	ad	3	2	prs	prs	dra	Mattel Mongobat	WUTV
1-070	10	pmo	3	2	prs	prs	car	Tom & Jerry	WUTV
1-071	20	pmo	3	2	prs	prs	car	Merry Melodies	WUTV
1-072	5	lgo	3	2	prs	prs	car	Fox, watch show	WUTV
1-073	195	pgm	3	3	prs	prs	mul	Carmen Santiago	WUTV
1-074	4	lgo	3	2	prs	prs&n	car	Fox	WUTV
1-075	30	ad	3	2	prs	prs	dra	Hasbro puppy	WUTV
1-076	30	ad	3&2	2	prs	prs	dra	Swt Secrets toy	WUTV
1-077	30	ad	2	2	prs	prs	dra	Chuck E Cheese	WUTV
1-078	30	ad	3	2&3	prs	prs,n	dra	Mnky Trble film	WUTV
1-079	4	lgo	3	2	prs	prs,n	car	Fox	WUTV
1-080	372	pgm	3	3	prs	prs	mul	Carmen Santiago	WUTV
1-081	4	lgo	3	2	prs	prs&n	car	Fox, right back	WUTV
1-082	30	ad	3&2	2	prs	prs	mul	CocoPebl cereal	WUTV
1-083	30	ad	3	3&2	prs	prs	dra	Barbie doll	WUTV
1-084	30	ad	3&2	2	prs	prs	mul	Hot Wheels	WUTV
1-085	30	pmo	3	2	prs	prs&n	car	Batman	WUTV
1-086	5	lgo	3	2	prs	prs&n	car	Fox	WUTV
1-087	383	pgm	3	3	prs	prs	mul	Carmen Santiago	WUTV
1-088	27	pgm-c	2	2&3	prs	prs	car	Carmen Santiago	WUTV
1-089	3	pgm-p	2	2	prs	prs	car	Carmen Santiago	WUTV
1-090	30	pmo	3&2	2	prs	prs	car	Animaniacs	WUTV
1-091	90	psa	3	3	prs&f	prs&f	dra	Totlly for Kids	WUTV
1-092	30	ad	3	3&2	prs	prs	mul	Ksg Dragon toy	WUTV
1-093	5	lgo	2	2	prs	prs	grp	WUTV 29 Buffalo	WUTV
1-094	1	pgm-t	2	na	prs	prs	grp	W Wrestling Fed	WUTV
1-095	70	pgm-c	2	1	prs	prs	car	Botsmaster	YTV
1-096	5	pgm-t	3&2	3	prs	prs	car	Botsmaster	YTV
1-097	383	pgm	3	3	prs	prs	car	Botsmaster&lgo	YTV
1-098	30	ad	3	3&2	prs	prs	mul	zoom&yoyo ball	YTV
1-099	30	pmo	2	2	prs	prs	mul	YTV Achiev Awds	YTV
1-100	30	ad	3	3	prs	prs	mul	Kool Aid	YTV
1-101	30	ad	3&2	3	prs	prs	mul	Puppy surprise	YTV
1-102	383	pgm	3	3	prs	prs	car	Botsmaster	YTV
1-103	30	ad	3	2	prs	prs	mul	Corn Flakes	YTV
1-104	30	ad	2	2	prs	prs	dra	Hasbro cutitout	YTV
1-105	30	ad	3	2	prs	prs	dra	dinosaur toys	YTV
1-106	30	ad	2	2	prs	prs	mul	Fashion magic	YTV
1-107	340	pgm	3	3	prs	prs	car	Botsmaster	YTV

APPENDIX 3

CODING CATEGORIES

Channel:
Program Title:

Unit:	
program	pgm
advertisement	adv
network logo,station id	lgo
teaser, headline, trailer	tse
program promo	pmo
public service announcement	psa
bulletin (news,weather,..)	bul
disclaimer	dis

Intra program unit:	
program intro	pgm-i
program extro	pgm-e
program teaser,sting	pgm-s
program,segment,series title	pgm-t
news item (anncr &/or tape)	pgm-n
announcer	pgm-a
credits	pgm-c
advertiser identification	pgm-v
producer logo	pgm-p

Type (general):	
news	nws
drama	dra
documentary	doc
sports	spr
talk	tlk
interview	int
soap opera	sop
cartoon	car
puppets	pup
direct address,announcer	ann
music video,ad cut to beat	mus
performance	perf
still or animated graphic	grp
multiple types	mul

Video address:

First person,eg.testimonial	1st
Second person,direct address	2nd
Third person, observation	3rd
Multiple	mlt

Audio address: (see above)	1st
	2nd
	3rd
	mlt

Visual temporal context:

Happening now,"live"	now
Cinematic present	prs
Includes one past sequence	pst
Includes one future sequence	fut

Audio temporal context:

Now, "live"	now
Cinematic present	prs
Includes one past sequence	pst
Includes one future sequence	fut

Categories coded but not included in analysis:

Voice:

male	m
female	f
child	c
multiple voices	ml
no voice	nv

Music:

male lyrics	lm
female lyrics	lf
mixed/duo	lx
lyrics;male lead & chorus	lmc
lyrics;female lead & chorus	lfc
lyrics;mixed chorus	lmx
no lyrics, instrumental	in
documentary, location music	loc
musical logo, sting	mlg
no music	nm
background music	bg

Unit repeated within viewing period:R,O

Ad category:

service	srv
store	sto
food	foo
automobile	aut
beverage	bev
political	pol
social	soc
advocacy	adv
products	prd
leisure, incl. films	lei

Diegesis or Non-diegesis:D,ND

APPENDIX 4

SAMPLE SEQUENCES

EVENT	TIME	UNIT	PGM TITLE	CHANNEL
5-001	100	pgm-c	Wings	WGRZ
5-002	355	pgm	Wings	WGRZ
5-003	30	ad	SherWlms paint	WGRZ
5-004	15	ad	FncyFeast catf	WGRZ
5-005	15	ad	Kentucky Fried	WGRZ
5-006	30	ad	Ford Aspire	WGRZ
5-007	10	pmo	NBC FigSk Chps	WGRZ
5-008	10	pmo	Sea Quest	WGRZ
5-009	347	pgm	Wings	WGRZ
5-010	3	pgm-s	Wings	WGRZ
5-011	30	ad	Fla Orange	WGRZ
5-012	30	ad	Cadillac	WGRZ
5-013	30	ad	Advil	WGRZ
5-014	20	pmo	Band Played flm	WGRZ
5-015	535	pgm	Wings	WGRZ
5-016	3	pgm-p	Wings	WGRZ
5-017	30	ad	Lexus preowned	WGRZ
5-018	15	ad	Ritz cracker	WGRZ
5-019	15	ad	Friskies catfo	WGRZ
5-020	30	ad	Red Lobster	WGRZ
5-021	20	pmo	Search&Rescue	WGRZ
5-022	10	pmo	Someone Like Me	WGRZ
5-023	20	pmo	Laroquette Dbl	WGRZ
5-024	26	pgm-c	Wings	WGRZ
5-025	2	pgm-p	Wings	WGRZ
5-026	3	pgm-p	Wings	WGRZ
5-027	5	pmo	Sat Night Live	WGRZ
5-028	30	ad	Gambino Ford	WGRZ
5-029	30	ad	Kendall Oil	WGRZ
5-030	30	ad	Plymouth Neon	WGRZ
5-031	5	lgo	WGRZ2 News@11	WGRZ
5-032	35	pgm-c	Seinfeld	WGRZ
5-033	30	ad	Ford Aspire	WGRZ
5-034	30	ad	Red Lobster	WGRZ

7-027	45	pgm	Wonder Years	CBC
7-028	4	pgm-s	Wonder Years	CBC
7-029	30	ad	Skor chocolate	CBC
7-030	30	ad	Cops&Robb film	CBC
7-031	30	ad	DeVry	CBC
7-032	30	pmo	CBC Sports	CBC
7-033	373	pgm	Wonder Years	CBC
7-034	4	pgm-s	Wonder Years	CBC
7-035	60	ad	CLR cleaner	CBC
7-036	30	ad	Wendy's	CBC
7-037	30	ad	Sport Card Ex	CBC
7-038	695	pgm	Wonder Years	CBC
7-039	4	psm-s	Wonder Years	CBC
7-040	30	ad	Reese candy	CBC
7-041	30	pmo	Beethoven	CBC

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