

Audio and visual characteristics of
television news broadcasting: their effects on
opinion change.

STRUCTURE AND CHARACTERISTICS OF TELEVISION NEWS

**BROADCASTING:
their effects on opinion change**

Stephen Kline

Thesis submitted in partial fulfillment of the
requirements for the Ph.D. Degree in the Faculty
of Arts, University of London.

1977

ABSTRACT

The audio-visual character of television was used as the conceptual focus of this examination of television news broadcasting. The research comprised both a macro and micro level analysis.

On the macro level, a study was undertaken to examine the influences of the cultural context of broadcasting with special reference to the structure of television and its news organizations upon the formats and content of television news programmes. A comparative content analysis was carried out of the principle evening newscast during one fortnight of news broadcast by the public and the private broadcast networks in Britain and Canada, and the NBC in the United States. A special "code" was developed for this purpose which would categorize not only content but also format, with a special emphasis on the relative role of the commentary and the visuals. Comparison between the countries revealed differences in both content and format, pointing to different cultural emphasis upon specific issues. Differences in the formats used in the news revealed a greater trend to 'entertainment values'—particularly the use of the 'action visuals' and the newsreader—in the more commercialized cultural settings. Within Canada and Britain, those differences between the public and private sectors which did occur, had to do with the style of news presentation, not with its contents, pointing to the standardization of production within the news organization under the conditions of competition and inter-dependence inherent in the structure of broadcasting in these countries.

The micro level study examined the effects of the visual and auditory components of the news story by means of an experimental study. A BBC type newscast about demonstrations was systematically varied in six experimental conditions to examine the relative effects and their interactions of modality, consistency or inconsistency between the modalities and of content bias on retention and opinion change. Specifically designed verbal/visual techniques of measuring the "impression" and the visual retention of the event were used. The results showed that viewers shifted their opinions in the direction of the story bias. Visual information increased the impact of the commentary and had its effects principally on the affective component of the opinion. Where visual information and commentary were at variance, the visuals had greater impact on the affective component,

with the commentary influencing the cognitive or belief component more.

The research points to the need to extend the concept of bias beyond that traditionally used in communication research, not only beyond content to style of presentation, but also to an examination of the different cultural and organizational factors within the industry, which lead to variations in the emphasis upon the visual element within news programmes.

ACKNOWLEDGEMENTS

No dissertation is ever the effort of a single person, and the acknowledgements provide the pleasant opportunity to pay tribute to at least some of them. The first appreciation goes to my parents; my mother for having instilled sufficient persistence and achievement motivation to see this project to the end, and my father for giving me an appreciation of dialectics and the love of argument.

Special appreciation must also be extended to Professor Hilde Himmelweit who has supervised this dissertation through six difficult years. Her encouragement and criticisms were both crucial elements in its completion. If I ever learn to write properly, it will be due to the standards she has set.

Further help has been received from many quarters. Many thanks go to : John Bird and Dilys Davies who have made the proof-reading and editing go much easier, Joanne Stone and Irene Holdham who helped with the research, Jill, Barry and Melrose who have all leant encouragement and support. To Lenna Gunning and her tireless fingers, enough gratitude cannot be expressed. All have played no small part in preparing this dissertation.

TABLE OF CONTENTS

TITLE	...1
ABSTRACT	...2
ACKNOWLEDGEMENTS	...4
TABLE OF CONTENTS	...5
CHAPTER ONE:	
Section 1.1:	INTRODUCTION: Relevance and Research into Communication/ Attitude Change Phenomena
Section 1.2:	Communication and the Social System
Section 1.3:	Television News
Section 1.4:	An Approach to the Analysis of Television News Broadcasting
	...19
PART 1: THE INSTITUTIONAL PROCESS	
	The social settings of news Broad- casting and Production
	...23
CHAPTER TWO:	
	THE CULTURAL CONTEXT AND THE GROWTH AND CREDIBILITY OF TELEVISION NEWS.
Section 2.1:	Introduction
Section 2.2:	The Growth of Television
Section 2.3:	The Institutionalization of Television News
Section 2.4:	The Programme Form of Television News
	...30
	The Credibility of Television News
	...35
	...40
CHAPTER THREE:	
	TELEVISION NEWS BROADCASTING ORGANIZATIONS
Section 3.1:	The Analysis of News Organizations
Section 3.2:	News values and the Audio-Visual Structure of the Newsroom
	...50
	...64
CHAPTER FOUR:	
	MESSAGE ANALYSIS
Section 4.1:	Introduction and Issues in the Analysis of News Messages
Section 4.2:	Methodologies of Message Analysis
Section 4.3:	The Structure of Television News
Section 4.4:	The Development of Hypotheses
Section 4.5:	Methodology and Research Design for Content Analysis
Section 4.6:	Results
Section 4.7:	Discussion of Message Analysis
	...83
	...91
	...95
	..110
	..116
	..126
	..174

PART 11: THE CULTIVATED PROCESS

The effects of broadcast news
Introduction: The Social Context
of the Individual and Message
Processing

..187

CHAPTER FIVE:

MESSAGE PROCESSING AND THE PRESENTER
SEQUENCE

..192

CHAPTER SIX:

INFORMATION PROCESSING AND THE ACTION
VISUALS SEQUENCE

Section 6.1:

Visual Information Processing and
Attitude Change

..210

Section 6.2:

Bimodal Information Processing

..216

Section 6.3:

Method

..242

Section 6.4:

Results

..252

Section 6.5:

Discussion and Conclusions

..292

CHAPTER SEVEN:

SUMMARY AND OVERVIEW

..302

..309

BIBLIOGRAPHY

..332

APPENDIX

CHAPTER ONE

INTRODUCTION

Section 1.1:

Relevance and Research into Communication/Attitude Change Phenomena

The Social Sciences, as prominent members of Academia, have frequently come under attack for failure to be of relevance to the "real world" (Andreski 1972, Bennis 1970). With the institutionalization of research within the universities¹, the resultant reluctance of many academics to involve themselves in issues that are controversial, or threaten the prized freedom-from-outside-influence that the university is supposed to enjoy, comes as no surprise. Recently in a critique of social psychology, Armistead(1974) has pointed out the lack-of-relevance aspect as a major problem in this field. Although criticism can be seen to centre around several issues, the major one is the role of "scientism" as the predominant paradigm² for research in this field of study (Smythe 1972, Gross 1974, Sedgewick 1974, Armistead 1974). By viewing his work as objective and neutral (Gross 1974) the social scientist has an inherent reluctance to apply or admit to the values that underlie or are implied by his work (McQuail 1972, Nordenstreng 1972). The results as Rowan (1974) states is the reluctance of social psychologists to see themselves in any sort of intervention role. This leads to the avoidance of research that either has or is intended to have influence or application (Rowan 1974), or even explanatory power over (Harre 1974) events in the "real world".³

Compounding this is the practical difficulties inherent in the carrying out of research that strives for relevance in the field of communications. For example, in the case of television news studies, the resistance of the institutions involved with regard to any kind of surveillance, criticism of cooperation are considerable (Lazarfield 1963) (Halloran 1968). There is likewise a limitation on access to materials, to

1. This is in contrast to the institutionalization of research in large corporate or civil service organizations in which the expectation is that the research serves the interests of the organization.
2. "Paradigm" is used here in Kuhn's(1962) sense and in the way Thomas and Bennis (1972) further develop it.
3. The obvious exception here is research done in the name of advertising.

to the institutional processes, and to internal information ⁴, and even copyright restrictions on off-air recording. In combination with the difficulties and expense entailed by access to the technologies of production and transmission the limitations within this field of research may be understandable.

A further general limitation within the field of research into communication and attitude change phenomena has been the emphasis placed upon attitude processes without regard to content or form of the communication (Lana 1969, Armistead 1974). This has shifted the emphasis of attitude theory to the concentration on 'cognitive-affective' structures rather than the 'socially relevant attitudes' (Nowak 1972) that are important in the day to day transactions of social life. However, this need not be the situation. The study of those information processes can be made particularly relevant, when viewed in relationship to the 'social context, and to the structure and content of the message systems that influence them.

The problem that the experimental approach embodies is that the resultant complexity of the phenomena to be studied is frequently overlooked in experimental research. As Nowak(1972) states, both the narrow operationalization of variables, and their subsequent study in isolated environments in order to achieve control, can be important limitations on the research process. If one is to approach research with the assumption that the complexity of any social behaviour needs analysis on many levels from macro to micro, in order to achieve complete descriptions (Miller et al 1960), then the study of attitude phenomena out of their communication context cannot be adequate. On the other hand Seiler(1963) has warned of the problems inherent in such integrative approaches. He states that "one of the most vexing problems for the social analyst as he turns his attention toward the more complex forms of organization, is how to account systematically for significant influences upon behaviour without becoming lost in a maze of infinite interdependence".

The need is to balance the systematic analysis of communication phenomena with a sensitivity to the problems of complexity and interdependence inherent in multi-level studies. The problem area under research, or the

4. Several requests made for internal studies carried out by the broadcasting organizations were refused, on the grounds of the value of the information to competitors.

research setting, must not by its operationalization filter out many of the important real world inter-relationships. As Sherif(1954) has said, this entails "establishing definite trends in life-like situations" within the experiment without sacrificing the "life-like character that gives greatest hopes for the validity of these trends".

In the field of communication and attitude, this entails integrating the specific attitudinal phenomena investigated in the laboratory with the analysis of the real world message system and its determinants.

As Nowak(1972) has argued, "Integration requires going back to relevant real life situations - a step that so far has not been taken in social-psychological research in mass communication and attitude change".

In his historical review of this field, Brown(1970) attributes this lack of integration to the sub-division of the field into schools of thought based on major methodologies that dictate the perspective taken on the communication/attitude change phenomena. The 'effects' research, being divided in methodology between the controlled experiment and the survey, were at odds over the impact of communications on attitude. Hovland's demonstrations of attitude change in the laboratory were in direct contrast to Klapper's summary argument for the norm-reinforcing role of the media based largely on surveys. Hovland(1959) himself denied that clear incompatibilities existed between the experimental and survey method. He points out variations in the two types of designs that lead to differences of emphasis and argues for the "mutual importance of the two approaches to the problem of communication effectiveness". Suchman and Gutman (1954) had pointed to the limited purpose for which the survey questionnaire as a research instrument was designed; measuring attitude 'change' was not included. Emmet (1966) has argued that there are few studies showing specific effects of unitary in-the-field broadcasts and that "the calculation of the total attitude shift may thus grossly underestimate the effect of a broadcast owing to the cancelling out of shifts in opposite directions".

In either case, the limitations of the 'effects' approach go beyond the conflict of methodologies back to the complexity of the phenomena. As Tunstall(1970) has stated, the "huge number of variables

makes any completely clearcut 'effect' of specific media outputs on specific audience behaviour...improbable". Smythe(1972) has pointed out that both methodologies entail direct cause and effect thinking in terms of the relationship between content and behaviour and, as Murdock(1974) states, subsume the view that the audience is a passive receiver of contents. However, this does not mean an outright rejection of the dominant methodologies entailed by those theories.

As Novak(1972)explains "the theoretical development of communication/attitude change theory has taken place within the traditional categories of psychology", and hence there are no social-psychological theories that are helpful in analyzing the full communications phenomena. In working towards such a theory one must keep in mind Katz's(1954) notion that research entails the balancing of theoretical objectives and the realities of the field situation; it is then that Novak's(1972) emphasis on the importance of the overriding theory, rather than the methodology is helpful. As he puts it "it is necessary to feed real world notions into the psychological experiment" rather than derive theory from the use of a particular methodology. He argues that the 'ecological validity' of the experiment can only be judged in terms of the nature of the guiding theory. A theory may be said to have ecological validity "to the extent that the theory encompasses relations and interactions between variables as they occur in the natural habitat of the phenomena in question". This means that although the laboratory is some senses will always be an artificial environment, there is a difference between an 'atypical' environment - in which the psychological processes of the real world are modified, and a microcosmic environment in which real world processes continue. The simplification and isolation of few and narrowly defined variables is not necessarily the result of the laboratory environment, but rather of the guiding theoretical constructs.

In order to achieve ecological validity in the laboratory, the variables controlled and studied must be traced from the 'real world', and must both retain their natural interaction and not exclude other variables that would change this interaction. The expectational 'set' of the laboratory situation must be one which is analogous to similar situations in the real world. It must significantly alter the motivational state or subjective cognitive anticipations of the subjects with regard

to variables investigated. Interventions such as the administering of questionnaires might, as alterations in the natural setting, be viewed as variables in themselves. As Katz points out, the investigator needs to be aware of the limitations of his research, even if he doesn't impose them. Ultimately this should mean the study of meaningful communications in typical laboratory environments is still possible for communication/attitude change research.

This provides the basis for an alternative approach to communication research by examining the attitudinal effects of particular communications within the cultural, institutional and organizational contexts which produce these messages. As Frenkel-Brunswick(1954) has said "an enquiry into the totality of the social process must consequently consider the structure of social institutions as well as different ways in which the economic and social organization is experienced by, and incorporated within the individual". Thus, when the examination is undertaken on the individual level of social psychology, it is done so in a way that relates those variables which are under study to the various aspects of real world communication phenomena.

It is within this framework that this study will attempt to generate an integrative model for communications research that can guide such an approach. The assumption made is that a transdisciplinary approach will result in social research that is of greater relevance to the real world situations in which communications occur. Although factors on one level of analysis are not expected to be reducable to others, underlying trends or tendencies that relate the communication 'effects' to its context must be anticipated.

5. Transdisciplinary stands in opposition to the multidisciplinary approach in which research into various disciplines are aggregated together, and the interdisciplinary approach (see Halloran, 1968) in which there is an inter-relationship drawn from the interplay of various areas under study. As R.L.Ackoff(1969) states: "by integration I do not mean a synthesis of results by independently conducted unidisciplinary studies, but rather results obtained from studies in the process of which disciplinary perspectives have been synthesized.....integration during the performance of research".

The transdisciplinary approach utilizes a unifying theoretical framework to organize the synthesis of knowledge from various disciplines, for example general systems theory as explained by Laszlo(1972).

Section 1.2:

Communication and the Social System

Recent emphasis by sociologists and psychologists alike has been given to the notion that reality is socially constructed, and knowledge socially derived and interpreted. This view entails that the communication process is intrinsically interwoven with the totality of the social fabric, and an individual sense of reality is derived to a great extent through communicated experience. By implication, this proposition highlights the relationship between the structure of society and the structure and flow of communications. Although many institutions and situations (schools, church, family) are ultimately involved in the definition of the 'sense of reality' in a culture, the mass media of communication have been singled out for "the part played...in shaping of individual and collective consciousness" (Gerbner 1972). Nordenstreng (1972) in viewing the growing debate about media refers to this as the 'problem of the social role of the media'. Although few would disagree with Gerbner's position that the media are related to the overall change in social relationships in a shared context of culture, the debate continues about the nature of that relationship.

Certainly most would admit, as Gerbner (1972) claims, that the mass production of symbols and messages alters the "symbolic environment" in a culture. However, as Murdock (1974) has pointed out, it is one thing to assert that there is a dominant meaning system, and another to demonstrate how it works. He goes on to say that contact with the mass media "for most people constitutes their main source of information about, and explanations of, social and political processes", and he proceeds to criticize the interpretive frameworks that the media do provide. Innis (1951), who was early to examine the impacts of communication technologies, argued that the "relative emphasis on time or space will imply a bias of significance to the culture in which it is embedded". McLuhan (1964) was to elaborate this argument with a particular emphasis on the impact of television. Gerbner (1973) in pointing out that television has its own "space, time, geography and ethnography" within the programme content of the media, has extended the notion of cultural bias to include both the nature of the media and its content. To the

degree that most people acquire information in social subjects from the incidental treatment of them in the media, then the issues centering around television's role are not only that television is an essential part in the social construction of reality, but that it provides a transformation of that reality as well. In conclusion to a historical overview of the mass media, Schramm(1960) has drawn attention to what has been at the centre of the controversy over the mass media - their relationship to an authoritarian distribution of communication, and to political system, subsumed within the patterns of ownership and control of the media. This, when coupled with what Roger Brown(1970) termed the "concept of the isolated, unrestrained, atomized and possibly anomie individual", led to the emphasis in media research on persuasion by the mass media and to attitude change. As Laswell(1960) argued, researchers became "aware of the strategic significance of arenas of power by control of communications", and this was mainly viewed in terms of the "management of collective attitudes by manipulating significant symbols". The anxiety over the control of the media, as Lazarfield and Merton(1960) pointed out, was in relationship to the large interest groups (political or economic) that came to shape this role. Mills(1968) added to this his fears that the media performed this role without being aware of its influence, and to a great extent this holds true for its audiences as well(Davey Committee 1970). A crucial dilemma with regards to television, then, is that it not only provides a transformation of reality, but it does so, by and large, without awareness. A large portion of this transformation is the standardized and formalized 'world of television' which becomes the dominant image of reality (Murdock 1974).

This concern with the relationship of the media to the power structure of any society, and to the various economic, social and political interest groups that had a potential to control it, has lead to two factors that are emphasized in the debate. The first, of concern to the social psychologist, was an interest in propaganda and the psychological process of attitude change(persuasion) that has pre-occupied much of the research efforts in this field. The second, emphasized more by sociologists and political scientists, has been a concern with the processes of distribution of information within society, especially information about real world events relevant to the political decision

process, and hence naturally to the news. If it were true, as Skornia (1965) claims, that "public opinion can be fabricated by those who control the media", then a lack of checks in the control of the news media's power is an important question within any modern democracy. What this entails then, is that these two frameworks for regarding the communication process, although rarely studied together (McQuail 1972) must be regarded in tandem. The persuasibility of an individual member of an audience is dependent upon those dimensions of information control that media agencies utilize in their transposing of real world events into news.

Section 1.3:

Television News

The role of television news in a society which views itself as a democracy is of the greatest importance. As Groombridge(1972) points out, as the complexity of a society increases, more complex information is needed throughout that society for understanding and decision making. In democracies, then, where elective choice means adequate information for such decision making, the process and organizations involved in the distribution of that information are fundamental. If one were to assume that the role of television is that of a persuasive and impactful media, then care ought to be taken to prevent individuals and large interest groups from manipulating television news in their interest. If on the other hand careful regulation of the media prevented such explicit manipulation of the media, one might still be concerned about the unintentional bias of the organizations that control the media, and present the dominant image of reality (Murdock 1974). Even if, as Melody(1973) argues, the real power of television news is not expressed as direct control over political contents, but merely in the maintenance of large audiences integral to the economic system which implies, as Nordenstreng(1972) asserts, that "the cultural perspective is unwittingly borne out through the news", then the role of television news is still of concern. In fact, the 'change' and 'mirror' roles may well both characterize the potential of the news media to change and frame some attitudes, and reinforce others. The extent to which either is appropriate can only be discerned when the part that news broadcasting plays in forming peoples' view of the real world, and in shaping their judgements of it, is further detailed.

Lipmann(1960) was early to point out "that whatever we believe to be a true picture, we treat it as if it were the environment itself". In its relatively short life as a medium, television has risen to a position of dominance in providing audiences with information about the 'real world'. In a survey reported in the Observer(1975) almost 75% of Britons questioned reported that they relied on television as their main source of information about 'what's going on in the world'. Several American surveys have reported similar figures (Roper 1971),

and the Davy Committee(1970) report stresses the degree to which Canadian audiences of television regard its news as a credible and complete picture of events in the world. The conclusion that we may quickly draw for all of these countries is the possibility that television news has become the major and most believed source of information about most kinds of real world events.

The startling feature of such studies is that they are independent of the varying natures of the institutional arrangements for television news broadcasting that exist in these three countries. Furthermore, in their dependence upon television news, audiences do not seem to differentiate between the type of media organization that controls its production and broadcasting. Whereas in Canada and Britain, the systems of broadcasting mix crown corporations with private enterprise organizations, the American system can be regarded as consisting of commercial broadcasting only. However, regardless of whether the organizational goals of the broadcaster is to produce corporate profits, or to perform public service, the news they produce is regarded by the audiences as equally unbiased and credible, and watched with similar uncritical interest. Whether this indicates the success of the commercial system or the failure of the public networks has yet to be assessed.

Although the threat of television's growing power has resulted in mechanisms of control for the media in all countries, we are led to the question posed by Skornia(1965) of whether "the proper institutional framework and control mechanisms for the essential communications functions have been found"? Historically, the institutional sanctions that provide the framework for shaping the power of television news were those developed around the press, and later radio. For instance in America, as Melody(1973) points out, "the very concept of democracy has been inexorably linked to a belief in the need for the freedom and integrity of the press and mass media". The American model of 'freedom of the press', which governs policies for news dissemination, assumes that many competing voices for the news audience will assure an unbiased and honest coverage by the private corporate interests that control the media. This places a heavy emphasis on the reactions of the audience being fed back directly to the news producers. In addition the regulatory

control by the Federal Communications Commission (FCC) requires the American programmes to cover all substantial viewpoints on issues of public importance within the bounds of the fairness doctrine (Chisman 1973). In contrast, the institutional arrangements for broadcasting in Canada and Britain structure the competition between public and private broadcast networks. The public broadcasting organizations are charged with fulfilling the functions of informing and educating the public, and as crown corporations to function in the public interest independantly of the political powers. Similar to the American system, a policy of due impartiality for the coverage of political and industrial issues is demanded of both public and private broadcasters.

The presence of institutional mechanisms for control of news broadcasting does not in itself insure that these mechanisms work in the way they are intended. Does a mixed broadcasting system in fact produce news that is more responsible? Does the competition for audiences enhance the responsibility of the broadcaster, or diminish the differences between news produced in public and private broadcasting organizations? Given both the importance and credibility of television news for the public, such questions may help to determine whether the proper institutions for broadcasting have been found. Parker(1973) has called upon social scientists to commence research that will help to determine such issues. As he suggests, the 'assessors' of communication technologies have a major social obligation simply because of the vast implications of these technologies. Such research will not be forth coming from the media agencies themselves. As Halloran(1968) has pointed out, it is they that have most to lose from exacting public scrutiny, and although they undertake much research, it is usually of a practical nature in terms of the organization goals, and frequently kept secret (presumably for competitive reasons). Halloran(1968) points out that such research must involve the whole communication process including the production process, the content of the media, and the audiences reaction - viewing the news within the social context and as a social process. This means focusing attention on the actual news services provided, and the features of those services which may be important for attitude change. In this way the researcher can take his place as an important component in the process of assessing the media. If the

press is the watchdog for the public, then let media research be a leash on the watchdog. It is precisely in response to a need for such research that special committees on the mass media have been set up in Britain, Canada, and the US over the last ten years.

Section 1.4:

An Approach to the Analysis of Television News Broadcasting

As Pye (1962) has noted, the analysis of communications phenomena requires a framework that "cuts across and provides a link between the objective sociological and economic problems basic to macro-analysis, and the subjective psychological problems of micro-analysis". He urges the adoption of a unified framework or perspective, rather than a multi-disciplinary one when undertaking such research into communication phenomena. Social psychology, naturally standing at the interface between psychology and sociology, should have confronted this issue of a general communication model that could be applied across the various levels of communication analysis. Instead, as Armistead (1974) has pointed out, this field is split between psychological and sociological social psychology. The result of this split, and the subsequent lack of a unifying theory, can be witnessed by the various approaches taken by research into news broadcasting. Most studies of the news have been isolated investigations into various components of the news broadcasting process and its effects. These include: cultural factors (McLuhan 1964, Williams 1974), the organizations of news broadcasting (Epstien 1974, Breed 1960), television news content (Frank 1973, Lemert 1974), and the processing of the news by receivers (Findahl et al 1969). This research, although isolated in its approach, has clarified the parameters of news analysis, and identified the levels on which the analysis must take place. As such, they can be used as the basis for defining the components of a general model that can be used in the analysis of mass media communication (see Fig. 1.1). And yet a trans-disciplinary approach must also provide a single organizing framework that allows for a synthesis of these various levels of analysis.

Models, theories or examples on which to base a transdisciplinary approach to news broadcasting are very few. Probably the most successful and acceptable approach is the 'case study' method, in which the coverage of a single news event is simultaneously examined at all levels of communication analysis. In this way the research is integrated by a focus on a specific instance - a crucible - in which all factors are witnessed together. The Halloran et al (1970) study of the news coverage of a demonstration is illustrative of the usefulness of this approach.

However, the human resources needed for this undertaking are beyond the capacities of the single researcher, and depend on the availability of a team.

In this dissertation, an alternative approach has been adopted which attempts to provide another method of achieving a synthesis across the various levels of analysis that influence the news process. It is suggested here that a suitable conceptual link that reveals underlying patterns at the various levels of the model may provide such an integrative focus. In the present research the unifying theme is based on the simple postulate that the audio-visual nature of the television technology is a crucial feature in the dynamics of the communication process of television news. The unravelling of the implications of this postulate will be the basis upon which this dissertation proceeds.

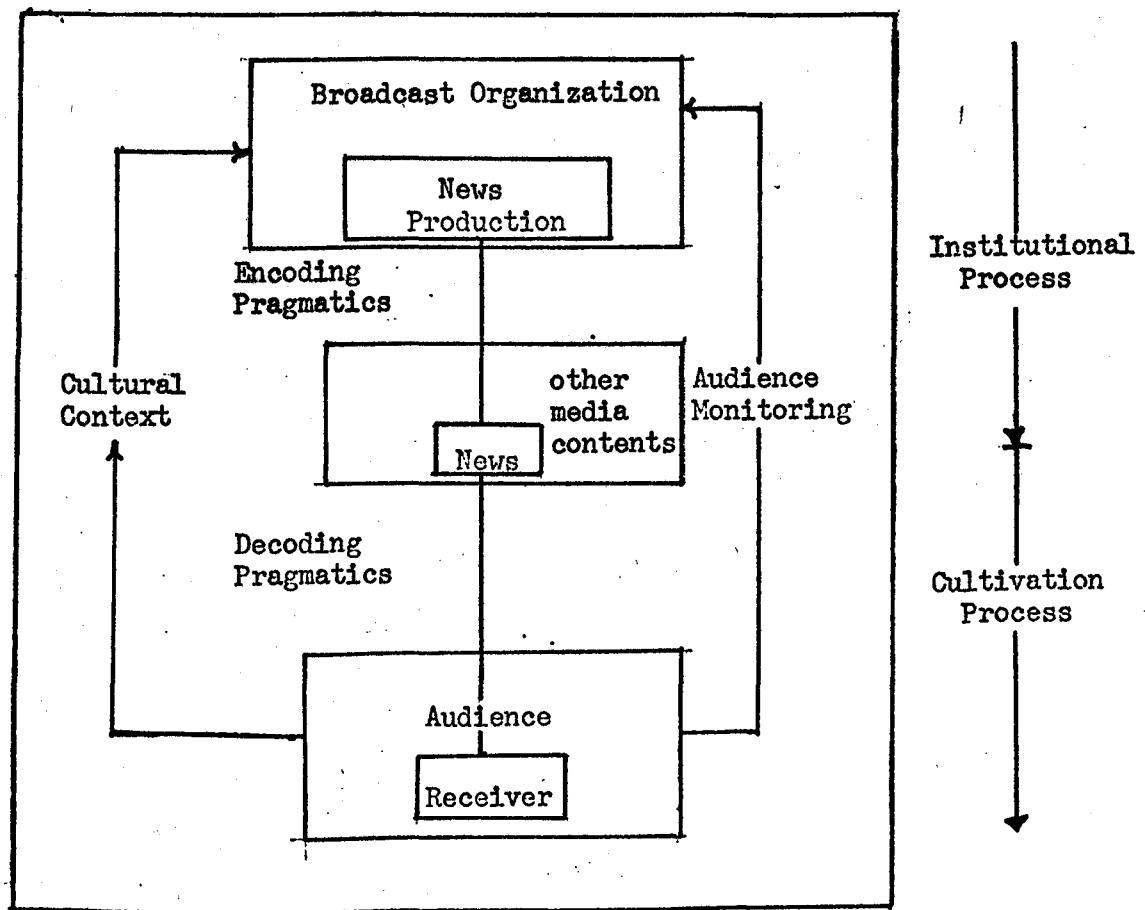
In performing this analysis, a distinction suggested by Gerbner (1973) was also found useful. He pointed out that integrative communications research should be oriented to both the Institutional and the Cultivation processes that take place within a mass communication system. The Institutional process includes those factors within the cultural and organizational settings in which news is produced and distributed, which influence the character of the message. The Cultivation process, entails the individual and social factors which determine what happens to the message once broadcast. The benefits that accrued from adopting this framework were two-fold, and are revealed in the part structure of the dissertation. Firstly, it provided the element of directionality in the model for analyzing the news process. This meant in Part One tracing the determination of the message system, from the cultural context, through the organization, to the message itself as a description of the cultivation process. Part II looks at the cultivation process, examining the message system, and tracing its influence on the individual and social levels in terms of how news is assimilated back into the culture. It is this latter point that is related to the second benefit of this distinction, that is the recognition that the mass media communication system has a built-in feedback loop. The individual viewer is both the receiver of messages yet part of the cultural context that determines the production of the news. For this reason the analysis of the cultural context must include

the audience dynamic as a determinant within the Institutional process.

The structure of the Chapters follows the analysis of the audio visual character of the news through the various levels previously identified. It begins with an analysis of the historical and cultural context in which television develops, and the implications that visualization within this medium entailed for the form of television news, and its credibility. Chapter 3 follows the forces generated within the cultural context to their expression within the broadcasting organization itself. Here again, the audio-visual nature of the technology and the task structure for news production, are examined as determinants of the format and contents for news. Chapter 4 undertakes to analyze the news as an audio visual message system, both as a means of testing for the influences of various cultural and organizational variables, and to facilitate the analysis of the effects of news broadcasting on viewers. The analysis of the processing of the news message takes place in Chapters 5 and 6. Both the audio-visual nature of the message transmitted, and the importance of visual as well as oral linguistic information processes are considered, to discover what the implications of the audio-visual character of the news messages are. Overall, the argument sustained is that the audio-visual character of the news message is an important explanatory dimension of the broadcasting of television news.

Fig 11:

A model of the News Broadcasting Process



PART ONE

THE INSTITUTIONAL PROCESS

The Social Settings of News Broadcasting and Production

CHAPTER TWO

THE CULTURAL CONTEXT AND THE GROWTH AND CREDIBILITY OF TELEVISION NEWS

Introduction

This chapter will consider the evolution of the social role of television news. This role is regarded as emerging at the confluence of several factors; those inherent in the nature of the technology itself, in the institutional arrangements¹ in which this technology developed, and in the culture of the society including the audiences for the various media and their content. At the centre of this analysis is the audio-visual character of the information transmitted by television. It is the interplay of this fact with other cultural factors that seems to have resulted in two major cultural trends. The first is the ever increasing importance of television in the processes of symbolic communication. The second, a growing dependence of audiences upon television news for defining the nature and workings of reality.

The analysis of the emergence of the form of television news and its audience use patterns draws attention simultaneously to a number of features of the cultural context. Television news, as only one programme type within the medium, is influenced by the social forces that determine the role for the medium in general. These include the political, economic and organizational interests that have come to influence both the development of the technology and its use in society. At the same time, TV news arises as one form of journalism, within expectations and institutions, genres of reporting and audience use patterns, which are well established in other media. A major feature of this journalistic form, is its 'reality-oriented' emphasis on current information. As well, television news emerges within the context of the changing dispositions of audiences for information, as they choose and consume contents on these various media and incorporate the use of the communication media within the activities of their daily lives.

¹ The concept of institutional arrangements being used here is the broad one suggested by Melody (1973). This concept includes the legal, political, economic and organizational structures as well as their internalization within the perceptions, expectations and attitudes of the society.

This relationship between the development of the specific media form of television news and the various forces at work in the cultural context is made more complex by the nature of communication media, whose role is to communicate and interpret that cultural environment to itself. In this way both the medium and the content are cultural messages. Given the interrelated nature of these factors, there may be a danger in a simple cause and effect explanation of the growth in television and its cultural effects (Baumann 1972, Smythe 1972). Although there is a considerable literature on the broader social factors and their relationship to television as an emerging mass medium (Schramm 1960, McLuhan 1966), this literature has been criticized for its emphasis upon either the nature of the specific technology, or upon the features of the mass culture (Groombridge 1974). Williams (1974) has demonstrated an approach that elucidates the possibilities of a number of middle ground positions between cultural and technological determinism. He also points out that very few attempts have been made to examine these factors as they influence the development of specific media forms. To do so, demands that attention be given to factors within the general culture that determine television's role and its differentiation from other media, as well as those that specifically relate the forms of television news to other information processes and media of news dissemination.

The task of this chapter is to provide a brief overview of the cultural context in which the form of television news developed and in which the organizations of TV news broadcasting operate, as determinants of news broadcasting process. Since the audio-visual basis of the television technology is a constant, a cross-cultural comparison can be useful for determining the way different institutional arrangements and cultural dispositions come to influence the form of television news. To the extent that such factors are determinants of news broadcasting, then differences in them should result in differences in television news contents. In this study, the comparison will be made between Britain, Canada and the United States. These countries provide an interesting test case for assessing both the impact of different policy and institutional frameworks for the media in countries that have similar cultural and economic interests operating as well as parallel patterns in the developing role of television news.

Section 2.1

The Growth of Television

The growth and acceptance of television as a new communication medium within modern industrial societies has been astonishingly rapid (Weiss 1969, DeFleur 1966). Within twenty five years of its introduction to the general public, the television receiver had found its way into over 90% of British homes, and over 97% of households in North America. Williams (1974) has attributed the swiftness of diffusion of television to several latent cultural factors, from which he draws emphasis to the growing isolation of the nuclear family within the privatized home, the free market economies, and various institutional arrangements and dispositions that had been developed around other communication media. Bogart (1960) in an earlier examination of the growth of television in the US pointed to the general affluence, and the growing consumption-oriented economies linked to advertising, with its concentration of populations in urban areas. Baumann (1972) as well, has stressed the market-oriented basis of capitalist economies and the way it provides the economic logic for television's role. In addition, Nakanishi (1963) has noted the importance of an increase in leisure time made available across the population within industrializing nations as an important demand made upon television.

The combination of these various broad cultural dispositions certainly laid the groundwork for the rapid diffusion of television in these societies. However, as Williams (1974) and Bogart (1960) have both pointed out, the development of the technologies of reception and broadcasting preceded any established use or role for the medium. Determined initially by the economics of manufacturing the receiver sets, large scale distribution of receiver sets depended upon finding a desirable content for television. Although the media's first role was to sell itself as a consumer durable; in doing so it became heavily dependant upon the models of programming extant in the press, on radio and in the cinema, to establish a desirable content.

In fact, the logic of programming choice was simple. Attractive, exotic and entertaining programmes would draw audiences to the new medium. Wherever such desirable programming was found, it would be adapted to the medium-desirability being defined in terms of the programmes' ability to draw audiences. However, once people had acquired television sets, other interests were focused on the new medium. The media itself became a means of delivering large audiences to such interests that wished to

communicate to them. This included advertisers, producers of programming, media professionals, politicians, governments and public interest groups. The rapidity of the medium's growth attests to the complimentarity of interest of both the producers of the technology and those that saw advantage in it as a communication medium.

A special feature of the technological base of the television medium was of specific worth to the advertising interests. As many media theorists have noted, the broadcast technologies have an inherent capacity to disseminate the same message simultaneously over a large spatial area, while maintaining centralized control over a unidirectional flow of information. To the advertiser the implications of this feature of the technology in terms of market penetration offered by a national network system were considerable. Additionally, the design of the 'receiver end' of the television technology was to facilitate its acceptance within the home. This tied the medium to the leisure time structure of the viewers, and the privatized family-oriented environment of the household (Shulman 1971, Williams 1974). This assured the advertiser of direct access to an 'everyman' audience, yet to a degree structured the viewing cycles of the audience segmented by the daily life-style patterns. These features of the broadcast technology, also typical of radio, were improved upon by television with the addition of the imagistic dimension of the television message, which meant engaging the eye as well as the ear in the communication process. As Schwartz (1972) has pointed out, radio was in essence a background medium. Sound, by becoming part of the environment itself, allowed for the continuation of other forms of daily activity. Television, on the other hand, also demanded visual concentration for proper message reception, binding the viewer to the screen and interfering with most other forms of activity. Television viewing was in itself a complete activity. The 'visualization' capacity of the television technology was important in attracting advertising interests to the medium, by enabling more attractive programming and increasing the attention of the viewer to the message.

The underlying economic dynamic of the commercial broadcaster is the advertisers' need for large identifiable audiences. Although advertising is not the major broadcast content (10-15% air-time) it is the major revenue for the commercial broadcasting organization. The advertiser's interest in proven audiences enhanced the broadcaster's

search for attractive programming. It also structured into the guidance of the programming-audience relationship the processes of constant monitoring of those audiences. Currently, all major broadcast organizations utilize this information on a continual basis. The basic unit of data is the number of television sets or persons tuned to any particular programme (Skornia 1965, Laird 1966, Emmet 1972). This information has become the basic means of assessing and evaluating programming, and for adjusting the programme output of the networks with the receptivity of the audiences. Lohisse (1973) has pointed out the cyclical nature of the programming-audience relationship as being essential to the medium's growth and to the development of its programming form. The process he outlined includes: the medium selecting its audience, the audience selecting the medium, and the audience selecting within media between networks for contents. If television produces a program type that in audience terms not only draws viewers to the medium, but defines a particular type of content as desirable by their use, then that type of programme will become a part of regular programming. Further, it will define a programme type for a particular proven market segment of the audience. In this way the broadcast organizations were able, by responding to market forces, to generate the expectations within the culture, that what television audiences really wanted and needed was entertainment (Brown 1970, Shulman 1971, Skornia 1965). Audience studies, such as Stiener's (1963) confirmed these expectations. Hence the major role that became defined for television was that of an entertainment media; Entertaining programming both sold the media, and provided it with the continual audiences needed for economic survival.

The consequences of these processes, however, go beyond the mere diffusion of television and its preeminence as an entertainment medium, to the establishment of the very structure of the relationship between the broadcasters and audience; and to the dependence upon audience appeal for the definition of programming success in terms of this audience appeal. Although it may be argued that these trends are more observable in the commercial-only broadcasting system of the United States, the amplification in the consumption of television's audio-visual contents is common to all three cultural settings, with daily averages of television viewing in excess of three hours. This may well be the point where televiewing can be said to dominate the non-working activities of most persons waking lives, and underlines the singular success of television's selling of itself.

These factors that operated upon television as a medium, were also to exert some influence on the growth of television news. If a market for television could be created, then the corollary, as Skornia (1965) pointed out, could also be true that, "a market for news items, like that for products can either be created or not created." The shaping of the role of television news was determined by the same audience based factors that governed television programming as a whole - that is, the ability to attract or maintain a viewer to the media and, more specifically, to a particular network. To the extent that television news as an information service is not incompatible with these other audience based trends essential to the medium's growth, it is acceptable within the programming of the medium. Epstein (1974) has argued that it was precisely through such a developmental cycle of programme modification that an entertainment oriented form emerged in the news. Increasing acceptance of the news by audiences, lead to increasing producer effort, and hence to further modifications in the news format, which resulted in increased preference by audiences. Over the period of television's growth, the news programme has developed from short and quickly read bulletins to major prime time productions, with the news service absorbing considerably more of the broadcast budget than is proportional to its airtime (Epstein 1974, BBC Handbook 1973).

The implications of the constant demand on the viewer's attention in order to maintain the audience for the network, were translated to the news programme. If the visual dimension of television would attract viewers to the screen, the visual dimension of television news would have to be sufficient to keep them watching. Visualization for establishing news as an attractive programme was an important aspect of its development and was quickly grasped by the producers and broadcasters. As Reuvan Frank is quoted as saying, the "television channel ... doesn't allow its audience respite or selectivity in the flow of news it is watching - the only alternative being to switch channels - in theory every news report must continually interest its audience."² The growth in the length and budget for the news broadcast is paralleled by the development of a compatible visual programme form for the news.

²As quoted in Epstein, E. *News From Nowhere: television and the news.* Vintage Books, 1974.

Section 2.2

The Institutionalization of Television News

Although the general conditions underlying the rapid diffusion of television receivers were comparable in the US, Britain and Canada, the processes underlying the development and control of programme production and broadcasting technologies were different, reflecting differences in the institutional environment in which the television medium was introduced. As Melody (1973) has commented, "in most instances, today's technologies are being forced to accommodate almost completely to the power structure inherent in our established institutional arrangements." The patterns of use and the formats for news -- for responsibility in information services -- were already well established in television's major predecessors, radio and the press. Already ownership, organizational control, legislation and guiding ideologies, norms and professional practices had been established for these media. In addition, contents and formats, as well as audience use patterns, were firmly entrenched. Television not only had to be assimilated into this context, but as well instigated a process of change in which many of these institutions were to accommodate to television as well.

In the United States, television developed in an institutional framework which prescribed that the media develop under the broad aegis of the notion of freedom of the press. Although this entailed, to a degree, the responsibility of the broadcasters to provide an information service, it did so in a context where government regulation was unable to interfere in their definitions of what this responsibility was, as long as it followed the broad guidelines understood by fairness.

American television broadcasting, like radio before it, followed the model of the press as a private business charged with the public interest. This generated certain obligations for the broadcasters to provide a news service, in order to be seen as acting in the public, as well as private interest. Like the press as well, television's basis of revenue was to be the sale of advertising time, either by the station or the network. To insure the public interest, regulation of the medium was established in a federal agency, the Federal Communications Commission (FCC), with its sole means of control determined by its power over the licencing of the broadcast stations. As Melody (1973) has pointed out, the FCC has never really had a policy based on public or social objectives, and the nature of its control mechanism precluded any direct influence over content or format. Siebert (1960) has argued that the underlying assumptions of the American broadcasting system, was really an expansion of the notion

of the free press - the principle established by newspapers. This principle was intended to insure the 'widest possible dissemination of information from diverse sources, as a condition of a free society'. What in fact it insured was that competition for the control of the distribution of ideas and information would be regulated only by the organizational and economic laws of the market place. As the Davy Committee (1970) was to note, the notion of diverse and responsible voices may well violate the simple laws of economics. Rather than diversity, the major trend has been increasingly to large scale organizational monopolies over the broadcasting technologies by the networks. (Skornia 1965, Brown 1972, Williams 1966). For the American situation this has entailed the reduction of television's voices to three private enterprise network based organizations.

Although regulation and control of the media was assumed to be done by the demands of the audience in the market place, the broadcasters themselves, reacting to a growing perception that the potential power of the medium for social and political influence might lead to greater government interference, adopted a policy of self-regulation in terms laid out in a broadcasting code. The code mentions the responsibility of the broadcaster to the public, but phrases it in such a way as to make its impact, that of keeping television less obtrusive politically and less controversial. It did this by incorporating many of the FCC's guidelines for information broadcasting generated in the fairness doctrine, which is designed to provide fair coverage of controversial issues. By applying the principle of fairness in their own terms the networks have been able to avoid external control. As Johnson (1973), himself a member of the FCC states, the confused nature of the doctrine's legal status and its lack of specificity in defining fairness prevent it from being used to regulate the industry. Rather, it remains up to the networks to interpret the doctrine for themselves, and regulation of the industry proceeds more in terms of the demands of its audiences, as perceived by the broadcasters than by any external agency.

In Britain the development of television broadcasting took place within a different institutional framework. With the early development of a vigorous national press (Williams 1974) and possibly to a degree because of it, in 1927 the first charter for radio broadcasting was given to the BBC. Radio broadcasting was to be done in the 'public interest' by an independent Crown Corporation, which was ultimately, only responsible to parliament. The model for broadcasting, used and

developed under the Reithian regime, which became known as the BBC ethos, was a multi-channel approach. Radio would broadcast as an authoritative and informed arbiter with an independent voice to the various segments and interest groups that made up British society (Groombridge, 1972, Hood, 1972). Finance for the medium was established via a grant from parliament levied on the use of the receiver sets. In 1932, television was included in the Royal Charter of the BBC, but it wasn't until 1954 and the Television Act that commercial television was created.

As a major change from radio's institutional framework, the advent of commercial TV created the basis of the mixed broadcasting system currently typical of Britain. Under the Independent Television Authority, commercial television was charged with legal responsibility to the public interest, with various mechanisms for assessing this responsibility. As Hood (1972) argues, the most important responsibility of the commercial licensee is for the provision of broadcasting services disseminating information, education and entertainment. Not only, then is the ITA bound to provide a news service, but instructed to observe 'impartiality as respects to current public policy.' Similarly in its charter the BBC is likewise bound to information broadcasting with due impartiality.

Although the situation in Britain differs from the United States in that both public and private broadcasting corporations have strong policies for information services; there are also similarities with the audience based dynamic of American Broadcasting. Commercial television in Britain, as in the US, is dependant upon the sale of advertising time for its revenue. A tension is created between the commercial broadcaster who is dependant upon audience appeal for his revenue, and the public broadcaster dependant upon his five-yearly grant from parliament. In order to be seen to be discharging its duty to public service properly, the BBC has to show that it can compete with the private broadcasters for audiences. With the minority and specialist audiences catered for by the second channel, competition for the large audiences developed between the public and private broadcasters, and audience research statistics are used in a way not dissimilar to the American situation. As Shulman (1971) and Hood (1972) have both noted, this has become the major feedback mechanism to the broadcast organisations. The dynamics of this system are possibly a more controlled version of the factors that influence commercial broadcasting in the US. Williams (1974) in his comparison

of public and private broadcasting in Britain and the US, concludes that although the American situation is more polarized than in Britain, there still remain clear differences between commercial and public broadcasting programming. On the other hand Shulman (1971) sees little distinction between the commercial and public broadcasters, arguing that both "vie with each other for giving the public what it wants - and what the public wants is to be entertained."

The Canadian situation is a curious combination of both systems. The CBC, like the BBC is charged with the public interest, which includes informing, entertaining and educating the public. It differs, however, with the British public broadcasters, in that the CBC is jointly dependant upon advertising revenue and yearly grants from parliament for its financing. Only one major national commercial network exists, and it achieves very little of its own programme production. Recent Canadian legislation has placed a greater emphasis for all Canadian broadcasters to increase Canadian content; however, most of the television audience is within the receiving range of American broadcast networks. Many Canadians express preferences for the American programming, even on the Canadian networks. This segmenting of the Canadian audience between five major networks places greater difficulty on the Public broadcasters to achieve the market segment necessary to compete with the other networks in audience terms, and the financing of production by the Canadian networks is frequently on a smaller scale. The Canadian situation can be characterized as a mixed broadcast system, with a weak public sector, charged with a national interest, but competing in a market in which American programme influences are dominant.

By way of comparison, both commonalities and differences can be seen in these various institutional arrangements. Through policy, in all three countries, the broadcast of news on television is encouraged; that is as long as it maintains 'fairness' and 'due impartiality' in its coverage. Additionally, the nature of the institutional arrangements structures competition for audiences into the very basis of television broadcasting. The differences then hinge on whether the competition is only between commercial broadcasters, or between public and private broadcasters, and in the traditions and conventions of journalism historically established in other media.

In addition to those institutional arrangements for broadcasting there were features within the very basis of the television technology which further contribute to the structure of television's role. Wentworth (1973) has pointed out, that the design of the television technology entailed a trade off between the number of channels

receivable and the resolution of the image at the receiver end. It was in keeping with both the American and British models for broadcasting that better quality reception was sacrificed for multiple broadcast channels. In the American system this was to ensure competition between channels for the mass audience. In the British system, multiple channels, at first to allow for the simultaneous broadcast to the different segments of the mass audience as understood in the Reithian regime, did not close the door on commercial broadcasting and the ultimate competition between the public and private sectors. In both cases the technology that emerged from the corporate development process was one designed for a limited number of broadcast channels within any one region. When combined with the capital expenditures and complexity of the broadcast technology, the result was a few large, centrally controlled network based organizations which came to control television programming. As such the stage was set for the inter-organizational rivalry that was to play an important part in defining the programming in the new media.

Comparisons of the British and American situations provide a means of assessing the impacts of these differing institutional and policy factors as they come to influence the broadcasting of television news. The degree to which competitive audience factors come to override the differences in the organizational goals of public service and profit should be evidenced not only in the overall programming, but also in the development of the contents and format for television news broadcasting. Several general questions may be raised by such considerations. In the first place, since television news is regarded as the broadcaster's major responsibility in informing the public, do differences in these organizational goals result in different types of newscasting? Secondly, since the main aspects of the institutional context for broadcasting structure the relationship between the audience and the broadcaster in terms of competition for viewers, are there differences in news broadcasting entailed by these differences in institutional arrangements for the media? These should be manifest as differences that occur between the cultural settings themselves, and the demands that audiences within them make on their news services. These questions will be addressed again later in this dissertation when the contents of television news programming are examined.

Section 2.3:

The Programme Form of Television News

The broad institutional arrangements instilled competition for audiences into the very structure of television broadcasting. This competition was not only manifest between the television broadcast organizations, but between various media as well. In many ways, the pressures of competition lead to a dual process in which both the norms and programme forms of other media were assimilated into television broadcasting, and yet the advantages of television - its visualization and presence in the home - competitively differentiated it from the other media. In the early years of TV, major radio personalities and programmes underwent adaptation to the visual forms of television. If it could be successfully translated into a visually interesting presentation, then the program usually survived on TV. Katz (1973), however, has argued that this process was even more complete, and that the television format was an "uncritical transplantation of certain of the norms of radio." He notes the similarity of the market forces that worked on both media, and argues that these became formalized by broadcasters into professional norms that came to govern the broader aspects of programming on television. The three most important norms Katz identifies are the values subsumed in non-stop broadcasting, the everybody audience orientation, and up-to-the minute news. Non-stop broadcasting describes the way programming becomes oriented to the maintenance of audience over as continual a period as possible. In terms of programming this not only orients the broadcaster to exciting and attractive programmes, but also to programme packaging, formulized sequencing, pacing and scheduling, or any other feature of programme design that can hold the viewer's attention. The everybody audience norm, describes the orientation of the programming to as large an audience as possible, and, therefore, to all types of viewer. As such, it influences programming to become less specific or specialized, and tends to use 'open codes' of production that can be easily understood by all (Lohisse (1973)). A major by-product of this norm is the exclusion of content from the media that anyone would find offensive, provoking or controversial. Finally, the up-to-the minute news norm, describes the emphasis placed by the broadcasters on the speed of reportage, and the time - liness of events. This emphasis stresses the immediacy of the media, and its instantaneity, taking a short term view of events rather than a historical or contextual one. Each of these norms also applied directly to television news.

This assimilation of radios general programming norms was matched

by television's dependence on the cinema for developing conventions for the inclusion of visualization into programming. This included not only a wholesale use of films as a significant component of programming, but the adoption of the genres of production of fictionalized and dramatic contents for establishing the forms of television entertainment programming as well (police shows, detectives, cowboys, sit coms) (Newcomb 1974). With the adoption of filmic content came the professional norms and practices of cinematic rendering and editing, an emphasis on personalities, and a grammar of filmic presentation - the structure of cinematic vision (Gessner 1968, Spottiswoode 1965); Wollen (1969) has claimed that this grammar was also firmly entrenched within the audience as well as the programme producer. Forsdale and Forsdale (1970) have argued that this filmic literacy is a learned ability to decode cinematic messages, and Carpenter (1965) has assumed that it operates very much as a language for a specific medium. Stephenson and Debrix (1969) see the essence of this language of film as the organization of the moving image sequence - its editing - including pacing continuity, camera angle, dissolves fades and other cutting techniques. Although the exact description of the 'filmic code' is beyond the scope of this discussion, it should be noted that it may include the transmission of various subcodes within each of the audio and visual modalities (Gross 1973). In Figure no. 2.1 separation of these codes within modalities is illustrated.

Fig. No.2.1 The Separation of Code and Mode for Television
MODE

	Audio	Visual
CODE		
Linguistic	spoken word	written word
	numbers	numbers, charts
Non-Linguistic	music	body language
	sound	moving image art, photography, graphics

In this way, not only was the language of television to be heavily reliant upon the cinema, but so was its most general programme form, which entailed the camera's ability to document reality, with the editor's transformation of it into a fictional dramatic form.

It is within this mainstream of dramatic and entertainment oriented programming that television news stands out as a unique reality oriented programme form within the medium's daily fare. However, the importance of the process of visualization for making programming more exciting has been noted as extending to television news presentation as well (Davy Committee 1970). As they state

"Television news without some kind of picture to support it - filmed or at least graphics - is considered by the broadcasters as an unworthy use of the medium."

Williams (1974) has related this principle of visualization to various aspects of the programme form of news including sequencing, news priorities and presentational style. Distilled to its essence a visualized form for TV news entailed the presentation of an oral discussion of an event by a visually presented commentator, or commentary on an event presented over the visual depiction of it, in either film clips or photographs. However, the growth of television news has resulted in the continuing emphasis of its visual presentational style. This has included back projection, schematic drawings, photo montage as well as sophisticated studio settings; and yet little modification has taken place in the actual verbal style, with its terse commentary interspersed with quotes and interviews, that was developed for radio news. De'ath (1975) claims that the popularity and growth of television news is thus related to the use of visuals which make the news the equivalent of other programmes, rather than an interruption in their flow. The expansion in use of these visual techniques for television news has been common to Britain, Canada and the United States, although some differences in presentational emphasis may be noted.

Certain aspects of the television technology were also important in the development of the programme form of news. At the 'head end' of broadcast production and signal emission, in the formative years of television broadcasting (pre 1956) were certain limitations, presented by the nature of the production equipment, to the scope and style of presentation. Before the advent of videotape, in fact, the possibilities for the early productions were strictly limited. Either pre-produced and packaged filmed content could be used, or 'live' broadcast with the television camera. As pointed out earlier, the film technology developed for the use in the cinema, included elaborate methods and practices for editing and rearranging sound and image separately. This 'grammer' of filmic presentation had as an essential feature, a means for breaking down the 'real time' and 'chronological time frame' for events into a filmed psychologic.³ The ability of film to manipulate and reconstruct events in time, has a major impact on the structure of television news stories covered by film. On the other hand, the live broadcasting of the television camera meant no separation of sound and image, and a real time relationship had to be maintained within the broadcasting of the event. Editing for live television was limited to cutting to an alternative perspective camera. This made large scale staged events (parades, sport events, state occasions) a natural for the television medium, and many early programmes were based on such events. In fact, this aspect of the television technology was to give rise to the popular notion of television as a window into the world; bringing actuality into the home (Mead 1972). Either such events, or the studio productions were the metier for the television camera, the latter because of the control that could be exerted on the final output (lighting, audience priming) without editing.

The subsequent incorporation of the video-tape machine was to make the television technology more flexible in terms of the control over editing of the programme. However, the heavy reliance upon the filmic technology for programming by the networks had established a pattern that persists, in terms of the strong links made between the

³ the breaking down of temporality is the most striking aspect of filmic editing. This means not only the exclusion of those aspects that are not of interest, (for example moving from point A to point B can be depicted as leaving A, and arriving at B) but as well the ability to rearrange segments in time, for example, flash-back in which historical, dreamed or remembered sequences are brought into relation with the present - the bringing of two different time frames together.

networks and filmic production. The effect of this link was to infuse television production with the standards and practices, programme values and production organizational structures, of the cinema. These included a highly market oriented consumer based entertainment ethic, a concern with personalities and the star system, professional status and the practices and genres of production.

The dual dependence on the two production technologies can be witnessed in the development of the television news' programme form. The earliest forms of television news, were live, radiostudio-like newsreaders, announcing the major events of the day to the television camera. Very few visuals were used, and the difference from radio news was merely that you could see the newsreader. During the subsequent years of expansion and redefinition of the news service, (from the 5 minute to the 25 minute program) there was a gradual inclusion of filmed episodes, shot with the cine camera either at the event itself, or of speeches or interviews with important persons. The style of these episodes was adapted freely from the 'cinema' news-reel genre crystalized for the cinema during the war years. The present general form of television news reveals this dual reliance on both aspects of the technology; filmed sequences of events and interviews interspersed amongst the introduction and commentary/analysis provided in the television studio. The cine camera with its greater mobility and editorial control recreates access to the events and personalities in the news in dramatized form, whereas the studio with its control, split second timing and personalities orchestrate these items into a programme.

Section 24.

The Credibility of Television News

These combined institutional, cultural, organizational and technological factors were to provide the context in which the form of television news was developed. The broad political and legal institutional frameworks that were established in the three countries, regulated not only the framework for impartiality and fairness of the news, but as well structured the context in which the relationship between the broadcasting organizations and their audiences were established. With broadcast networks competing to attract and maintain audiences, the forms of television programming, adapting liberally from other communication media, were pressured to evolve attractive entertainment-oriented programme contents. Television news was both subsumed within these general trends, yet in keeping with previous journalistic traditions, was to stand out from the main thrust of fictive oriented programming. It developed as a unique kind of 'reality oriented' programme within the programme environment of an entertainment media. It had to do so not only to discharge the broadcasters obligations for informing the public, but in a way that maintained or increased audiences. To a large extent the potential incompatibility of these 'audience' and 'information' objectives was avoided by the use of the visual dimension of television. This not only increased the intimacy of the relationship between the viewer and the personalities that reported or made the news, but also the immediacy of the events themselves by the camera's bringing of the world's events into the home directly. Doing so in a way that was increasingly interesting, exciting and undemanding of the audience, was the road to success for television news broadcasting. Large audiences for the news, were themselves arguments for the success of the television organizations discharging of their duty to inform the public.

The successful evolution of this compatible form for television news is witnessed in the audience use patterns and attitudes towards television news. An ORC (1970) survey in Britain found 56% of its respondents using television news as "the information source that helps you know most about what is going on in Britain." Curran (1970) reports research that shows 69% of his sample as daily viewers of television news. A growing pattern of dependence on television news is reported in Canada and the US as well. Several studies have compared the use and preference patterns for various news sources in these countries and television emerges as the medium most used and preferred for national and international news information. (Defleur 1966, Roper 1971, Erskine 1973,

Chang and Lemert 1968, Davy Committee 1970). Roper has argued that since 1968, there has been a growing trend to the singular use of television as a news source. Bishop et al. (1969) have found this trend to be most typical of the younger teenage sub-group. Curran (1970) and Lemert (1970) on the other hand have both presented a case for the persistence of multiple media use or 'dual track' pattern of news consumption. They see different information functions being served by the press and television news services. In particular Lemert (1970) has argued that it is the ritualistic nature of media consumption that is the reason for multiple media use. Penrose et al. (1974) conclude from their study "that television, primarily an entertainment media has made its greatest inroads against newspapers which emphasize entertainment," in explaining the increased dependence on television as an information source. Although variations in the media-use patterns occur in relation to different social and demographic factors, the overall growth in the use and preference for television as a news source can hardly be denied. These studies, are themselves reinforced by the audience size for the daily news programs, which are frequently as large as some of the most successful entertainment programs (BBC Handbook 1973, Davy Committee 1970).

With the producers' emphasis on news as entertainment, the large daily television news audiences may be expected to relate to news as more than just 'information about the world'. The gratifications in watching television news, and the reasons given for its preferred status, provide evidence that the viewer watches television news within a framework much broader than intimated by the traditional notion of the surveillance function. McQuail (1972) in reporting research into the gratifications derived in television viewing points out that the news overlaps with many of the gratifications associated with various kinds of other entertainment oriented programs. Of particular interest are the 'security' factor and 'usefulness in social discourse' that may characterize motivations for news viewing. Nordenstreng (1972) has stressed the role played by the security motive when he writes

"many people follow the news because in this way they gain a point of contact with the outside world - a fixed point in life in which the content of news is indifferent to them. Little of the content is understood because of the lack of background information, therefore, the succession of items becomes a ritual, a custom serving to maintain a feeling of security".

The ritualized and dramatic form of television news, evolving in response to the audience demands, reflect these needs of the audience more than they do demands for information, on which they might make important

decisions. Booth (1970) and Nordenstreng (1972) both point out how little information is in fact retained from the watching of television news. Less than 50% of the viewers retained any specific item, and most recalled that 'nothing special happened' today in the news. Since the institutions within which the media developed, predisposed them to the demands of the mass audience, the attitudes of the audience towards the media may be expected to reflect many aspects of the programme form. In the extensive surveys carried out by the Davy Committee (1970) not only was the audiences' well known preference for entertainment on television confirmed, but also the fact that they regard television news as the easiest way to get information about events, particularly when compared to radio and the press. Likewise for the British audience, Curran (1970) found that 67% of his sample felt that 'television was the medium that makes the news most interesting'.

The evolution of television news into an entertaining information ritual, might not be so crucial, however, if the audiences for television news were to maintain a more critical framework for assimilating news information. It is the combination of the twin patterns of growing dependence on television news and credibility of the information transmitted on the media, that makes TV news so central to the public's perception of events and of reality itself. In Britain for example, 69% of Curran's (1970) sample also stated that television was the most trustworthy of news sources, whereas only 6% associated trustworthiness with newspapers. Several studies have reported similar results for the credibility in the North American news as well (Roper 1971, Davy Committee 1970). Although no cross cultural comparisons are available, the established pattern of news credibility seems to extend across public and private networks as well as countries, and seems to be characteristic to the news form itself. An examination of reasons for the growth in the credibility of television news may help to reveal certain important features about the nature of the social role television news broadcasting has taken, and the importance of the visualization of the news.

Early studies such as Westly and Severin (1964) were among the first to emphasize the importance of the relative credibility phenomena and its relationship to the reception of news information from the different news media. At the time of their study (1962) they found an inconsistency between 'use preference' for media news and credibility. Their broad analysis of the intercorrelations led them to conclude that "the more time people spend with each of the media, the more likely they are to assign credibility to that medium." Their analysis in terms of demographic factors allowed them to divide the data into 'media use types'

and relate these to relative credibility scores for news media. Greenberg's data (1965) further refining the media usage-credibility type links, strongly emphasized the demographic factors that distinguished media use and credibility types. Older, educated males, they report, are predominant in the newspaper use/newspaper credibility type. This relationship between media use and believability, has more recently been called into question (Chang and Lemert 1968). Their data supports the contention that in all media use groups, television is rated as most believable. Lemert (1970) argues for a dual track hypothesis, in which a lag in television's credibility behind its 'use' occurs at the time of the Westly and Severin study because it is at the period in which rapid growth of the television medium, particularly its news service and its news credibility occurred. Chang and Lemert (1968) report data on the reasons for media credibility, and emphasize the ritual and habitual nature of newspaper usage. This would explain the inconsistencies in Westly and Severin's subjects that used one medium and relate higher credibility for another. They go on to argue that although the facts of television's rise to credibility are undisputed, further explanation beyond just the relationship to media usage are required. Viewers don't find television news credible just because they are watching television.

In fact, Westly and Severin (1964) have speculated a variety of possible and not necessarily mutually exclusive reasons for TV's credibility. These are:

- 1) editorialized contents in the press creating lower credibility
- 2) anonymity of the newsmen in newspapers
- 3) institutions of the press are personified more and therefore less credible
- 4) credibility due to immediacy and visualization.

Rosenthal (1971) has distinguished between content and paramessage factors in the credibility/attitude change studies. In examining these above factors it is useful to distinguish the first - a content-related factor - from the subsequent 'paramessage' factors related to the channel and formats of media presentation.

Relative Credibility and Content

The institutional arrangements for television, unlike the press, legislated that the coverage of issues should be 'fair' and 'impartial'. Such factors may influence the viewers' perception of the relative credibility of the news on these media.

Source credibility has been a well researched variable in media and attitude change literature (Giffin 1967). Jacobsen (1969) has emphasized

the importance of the 'cognitive' aspects of source credibility to the issue of the relative credibility of different news media. His argument states that the relative credibility of a news source will bear relationship to the viewers' perception of the 'bias' in the contents presented by these media. Berlo et al (1970) have also argued a similar position which emphasized the source's 'image' rather than 'objective attributes of the source' to credibility. 'Perceived bias' can stem, as Zanna and Del Vecchio (1973) argue from 'counter-attitudinal' effects of positions taken by the media on issues differing from the public's attitudes on these issues. In cases where own attitude is descrepant with the 'facts' as presented on the news, the source will be seen as less credible. Their correlational data tend also to support the corollary, "that credibility is enhanced when viewers perceive the position taken by television matches their own." Westly and Severin (1964) point out a specific relationship between the political bias of the viewer and a preference for different media. In their study, ^{of} independents⁶ on the political dimension _{of} opinion put less trust in television than either partisans (Democratic or Republican) or non-preferences. This may reflect the fact that fairness frequently means presenting both sides of the issue, but not alternative views. Jacobsen (1969) found that newspapers were generally rated as more 'biased' than television, even by those who use and believe in newspapers most. He suggests that some respondents may prefer a biased media, particularly when it coincides with their own view. This, it is considered, is more true of newspapers where selection is related to the political congruence of the paper and the reader than of TV. As Jacobsen (1969) states then "the closer the value system of the source is perceived to be to that of the receiver, the more trustworthy is the source in the judgement of the receiver". This explanation, invoked to explain the 'newspaper use/preference problem cases', has implications for the interpretation of the greater credibility of the television medium as well. Either because television is perceived as more unbiased, or because it is so, television news must seem less counter-attitudinal than other media. Television contents could be less counter-attitudinal by being more neutral, in the sense of only expressing majority opinions. On the other hand, television could appear less counter-attitudinal if the content is more susceptible to selective perception (McCombs and Smith 1960) and attention than the press, hence allowing both sides to assimilate the same information, and not perceive it as biased. The third possibility, of course, remains that the credibility phenomenon is an effect of paramessage factors of television news - those that make it difficult for viewers to perceive the 'bias' of

the television news contents - not an effect of the content bias at all. Data will be examined later in this study to try to clarify these factors although in terms of attitudes surveyed at large there seems a definite trend to a perception of 'unbiased, politically neutral, more objective contents' being associated with television rather than other news media (Jacobsen 1969, Tannenbaum & McLeod 1963)

Ryan (1971) has related other credibility factors to the different types of content that are broadcast on the different news media. His factor analysis showed that 'demonstrations' cut across all geographic boundaries as an issue, and were regarded as more credible on television. On the other hand, science news coverage was regarded as more credible in newspapers along with 'local public affairs' stories. His third factor consisted of 'national' and 'international' public affairs issues, both of which were more credible on television. His data are supported by the findings of the Davy report (1970) on relative credibilities for local, national and international news, as well as Lemert's (1970). They found that national and international news was more believed on television, whereas local news more so in the newspaper. These findings, although indicative, may be subject to criticisms. If the network television news does not cover either local or 'science' issues, what is the relevance of this finding except possibly to indicate the differing credibilities for 'network news' and 'local news', the latter produced more cheaply by an individual station? (Lemert, 1970). Again, the Davy Report shows that in terms of preference for media for different sorts of subject matter, newspapers were far preferred for information about taxes, economics, politics, labour and the law. Audiences don't seem to refer to television for in depth coverage, interpretation or background. Although the scanty data provides only an impressionistic picture, it may be that contents of TV news relates to credibility in a different manner. It is not processed in the same way that 'information in the written' sense is. People may watch television news to 'know about' what is going on rather than to understand it in depth. Studies of the retention of television news stories seem to support this notion in that so little is retained, in comparison with reading. The content of television news may only be important in the ritualistic sense of 'knowing what is going on' that Nordenstreng has mentioned, and not in terms of a persuasive argument for or against any particular position as commented in the content. To the extent that television news is 'visual' it may serve these ritualistic functions more easily.

Paramessage Factors:

Of the factors in the literature that may influence the relative credibility of the various media news-coverage, visualization is mentioned most frequently. It has been argued that the completeness of the sense data, the amount of information transmitted, and the immediacy and involvement entailed by the television medium's facility with the moving image, is an important factor in media credibility (Frank, 1973). As the Davy Committee reports: "people like the visual presentation of facts and entertainment". They understand the news better because they see what has happened. It allows them to partake of life which ordinarily would be inaccessible." In Carter and Greenberg's (1965) study, more than half the respondents that chose television as the most credible medium cite the 'live', 'more recent', 'you can see it happen', or some similar immediacy type of reason. Chang and Lemert (1968) and Lemert (1968) also report in their studies of the reasons for relative credibility, that the live recent reporting and the more complete sensory information are of importance to TV believers, whereas completeness in the sense of in-depth information is more important to newspaper believers. They further conclude that television not only has the advantage of immediacy of sensual material but of completeness in terms of covering 'the whole range of events', and of being up-to-the-minute in timing. In his own research, Jacobsen (1969) is surprised in viewing this same finding; that subjects rate TV news as more complete than radio and the papers. In his discussion of sense modality factors, he concurs with Carter and Greenberg (1965) that if "the more sense modalities involved, the greater the realism" then TV presented with picture and sound "outclasses other media in simulating reality" and this enhances its relative credibility. It is remembered that factors associated with the sense modality aspects of television are a result of the nature of the technology and its transmission properties.

Rosenthal (1971) has pointed out that this sensory factor is important in relating other aspects of the paramessage to credibility of news sources. He has criticized studies of media credibility for failing to distinguish between credibility due to the person originating the message and the medium transmitting it. Both Jacobsen (1969) and Shaw (1973) argue that media credibility is not uni-dimensional but may have several components that become confused when single measures of believability or credibility are used. For example, in Jacobsen's data, perception of objectivity of the media is not always related to believability, or in Shaw's is trustworthiness of the source related to unbiasedness or to credibility. They suspect that the scales used in his study do not tap

the complete range of components of credibility such as dynamism, expertise or prestige. Berlo et al (1970) used a large number of scales with three dimensions of source image including safety, qualification, dynamism, to explain the variability in a large variety of sources. These dimensions may be important when it is considered that some of the credibility difference may be due to the fact that television includes information about the presenter of news, in sound and in visual presentation. The visibility of the newsman may be related to believability of television news, as indicated by the response to a belief that 'better personnel' is a factor in television credibility (Carter and Greenberg, 1965, Chang and Lemert, 1968). In keeping with this argument Markham (1968) has measured the loadings of three newscasters with differing presentations, on credibility dimensions and found the following factors:

- 1) reliable-logical: validity of message
- 2) showmanship, dynamism, entertainment
- 3) trustworthiness

It still remains, however, for empirical validation to determine to what degree factors in media credibility such as trustworthiness, expertise and reliability may be influenced by the personal presentation of news men and news reporters, and even news sources via the audio-visual medium of television. Many critics of television news have pointed out the importance of the presenter for the 'show biz' side of the news (Epstein, 1974, Groombridge, 1972), yet few have mentioned a relationship to credibility. This argument will be further considered in Chapter 5.

A number of studies have demonstrated that institutional image may also influence the credibility of the media. McLeod and Tannenbaum, (1963) and Sargent (1965) provide studies that indicate that some of the credibility of media sources is due to the institution, and some to the personnel. Differing dimensions of credibility may be taping these different aspects of the source. They found that the 'ethical' dimension of the news source was related to the content of the news, but most significantly to the distinction between personal and institutional sources of news. Sargent (1965) notes that in his data, television has the most marked difference between its personal sources (rated higher on accuracy, sincerity, responsibility) and its institutional sources. It is both the direct presentation of the newsman in the news programme, and the reputation of the media organization that combine to determine source credibility of media news.

It is with regard to institutional sources that Holleran et al (1970) have argued that the reference group of the source is important with regards to media credibility. The general credibility of professional groups relating to news broadcasting, and even the specific reference groups, or personalities that are identified on the news (newsreader, editor, correspondent) may vary in their credibility. Myers and Goldberg (1970) have found that when a source is a 'high ethos' group, as opposed to a high ethos individual, credibility and attitude change are both increased. This relates to the importance of the ethical dimension that Sargent discusses for news sources and raises the possibility that the credibility of journalism itself is an important feature of media credibility. Jacobsen finds a relationship between relative media credibility and the ratings on dimensions of credibility for media sources (Objectivity/ Authority, Dynamism/Respite). Television and Newspaper believers seem to be operating in terms of different aspects of the various sources. That data, although riddled with complexities and problems in the research, seem to indicate that with regard to source credibility, television news and newspapers are regarded differently. As an audio-visual medium, television news not only presents personal information about the source to a greater degree, but as well includes direct visual access to events that are being discussed. The written word format of the newspapers seems to orient the reader more to the message-related aspects of credibility, that includes the perception of the biased nature of the content as a major aspect of news presented in this medium. If this were true, then the rise of credibility in television news is not related to content bias in the coverage, but to the increased presentation of the credible newsman, and direct visual access to the event.

Summary

The growing cultural trend of dependence upon television news for 'information about the world' noted in Britain, Canada and the United States has been related to factors common to these three cultural contexts. Institutional arrangements within these cultural contexts placed demands on the television broadcasting organizations to provide an 'unbiased' news service. They did so within the varied institutional frameworks of competition for audiences specific to the cultural context. The result was the development of the 'visualized form' of television news that not only met the requirements of 'fairness' and 'impartiality', but did so in a way that made television news into an attractive type of programming for these audiences. The combination of 'impartiality' and 'visualization' of television news, was viewed as an important element in the rise in the general credibility of the television news service.

CHAPTER 3
TELEVISION NEWS BROADCASTING ORGANIZATIONS

Section 3.1:

The Organizations of News Broadcasting

A recent emphasis in the study of media communications on the process of 'institutionalization' of the message system (Gerber 1972) has led to an increased perception amongst researchers of the need to examine the broadcasting organizations themselves (Halloran et al 1970, McQuail 1972, Skronia 1965) as the producers of the messages. As Galtung and Ruge(1970) suggest, this is particularly relevant in attempts to study the 'process of selection' involved in the broadcasting of television news - why particular events are covered and others not. Gerbner(1972) states "the way the media define the situation is seen as resulting from definitions prevailing in the general culture, and from the institutional factors that stem from within the media themselves". In particular, as Epstein(1974) argues, this point of view highlights the "effect of the process of a news organization on the news product". The necessity of relating these organizational studies to the corpus of other communication studies has also been stressed by Tunstall (1972) who asserts that there must be an incorporation of organizational studies into other areas of investigation including content and audience analysis. From the political point of view, Hood(1972) similarly states "the politics of television, in an obvious sense, deals with the relationship of the television industry and the organizations that control it".

Although the scope of the study of organizations is vast, the need here is not to examine television news broadcasting organizations *per se*, but rather to trace the influence of the organizational setting on the structuring of news messages, within the given determinants of the cultural context. In this dissertation, factors related to the bimodal aspects of television broadcasting and information processing will especially be examined . The organizational analysis of television news production offers an alternative to the 'conspiracy theory' oriented explanations of political bias in media news as offered by Spiro Agnew (1969) in which the bias in

news coverage is directly related to the opinions of individuals that work within the organization. The organizational view offered here rests on the premise that the organization can be viewed as operating independently of the individuals that work in it. As Groombridge(1972) argues, "institutional structures may produce objectively different effects from those that would ever be intended by those working through those institutions". With regard to news organization, Epstein's(1974) evaluation leads him to conclude that "the fact that newsmen have certain shared values does not mean that those news values prevail when they run counter to the structural restraints and logic of the news organization". The basis of organizational analysis must be that an organization, as a complex social system, must be studied as a total system if individual behaviour in it is to be truly understood.

Differing approaches have laid varying emphasis on a variety of factors in the organizational analysis of news broadcasting. These include decision making (Galtung and Ruge 1970), economics (Epstein 1974), personnel (Skornia 1965), roles and organizational goals (Tunstall 1970), professionalism (Burns 1970), (Leroy 1974), and bureaucratic structure and editorial process (Halloran et al 1970 , Warner 1968). Although each of these important issues has been raised with regard to organizations of newscasting, there are few attempts to relate them to either the cultural context in which the messages are produced, or the content of the output of the organization. For this reason, the framework of systems analysis, which not only orients the analysis of the organization to inputs and outputs of the system, but as Katz and Kahn(1964) state, is basically "concerned with problems of relationships, of structure and interdependence rather than the constant attributes of objects", will be more suited to the needs of this study, which attempts to relate the various organizational factors to the audio-visual structuring of news messages.

Earlier formulations of selectivity in news organizations focused on the notion of 'gatekeeper'. In essence this view saw the regulation of the flow of information through the news organization as a sequence of binary decisions (pass/don't pass) at various stages in the news reporting process. This view was in keeping with Ashby's (1969) general rule for organizations which states that "an organization's capacity as a

regulator cannot exceed its capacity as a channel of communication". As a passive system, only capable of transmitting information, the channel capacity, dependent upon a one way flow of information, would be limited. However, as Epstein(1974) and Tunstall(1972) have both more recently argued, news organizations engage in active 'search' decision making as well as passive 'gatekeeping'. The news media can make news as well as report it, which means that an analysis of news organizations must directly concern itself with the variety of transactions of the organization with its environment, and the relationship of such transactions to the operating rules and structure of the organization (Gurevitch and Elliot 1973). Blumler(1970) has called this the 'stage and agenda setting' function of the news media, which not only makes some issues more important than others, but influences who will speak for those issues¹.

For these reasons a systems perspective has several advantages for the purposes of this study. As Ackoff(1969) states, systems analysis is an attempt to relate inputs (from the cultural context) throughputs (within the organization itself) and outputs (content and form of the news programmes), as well as considering feedback (agenda setting, audience reaction, political reactions) to the organizational system. Since the model for open systems analysis views an organization as a dynamic entity striving for stability - particularly stability with its environment, this perspective orients the analysis to both variation and stabilities within the output of the system.

Emery and Triste(1969) have provided a basis for the examination of an open system's transaction with its environment. The asset of Emery and Triste's analysis of organizations is their stressing of the need to include the 'casual texture of the environment' within the analysis of news organizations. With regard to news broadcasting, we may note that not only is there the usual relationship of the organization to its political, economic and legal aspects of the environment, as with other organizations, but also the fact that the role of the news media is to monitor that environment and communicate

1. The most obvious examples to be mentioned are the hijackings and demonstrations, although Boorstin (1964) has outlined a large number of pseudo-events that are created for the media.

it to the public. A news organization must not only generate an implicit definition of its operating environment, but must react to changes in this environment as 'information' long before the effects of changes in the environment have filtered down to influence the organization². In addition news broadcasting clearly fits within the typology of environments as a 'turbulent field', in which not only are there other similar organizations of 'similar intent' within the environmental field, but other media (radio, newspaper) which are oriented to a similar task as the television news broadcaster. As Emery and Triste continue, the turbulent field situation increases the relative uncertainty of the organization; hence the interdependency of the television news media with not only the news professions (Burns 1970) but with other news media (Halloran et al 1970) in order to reduce this uncertainty. This has become an important aspect of the analysis of television newscasting organizations.

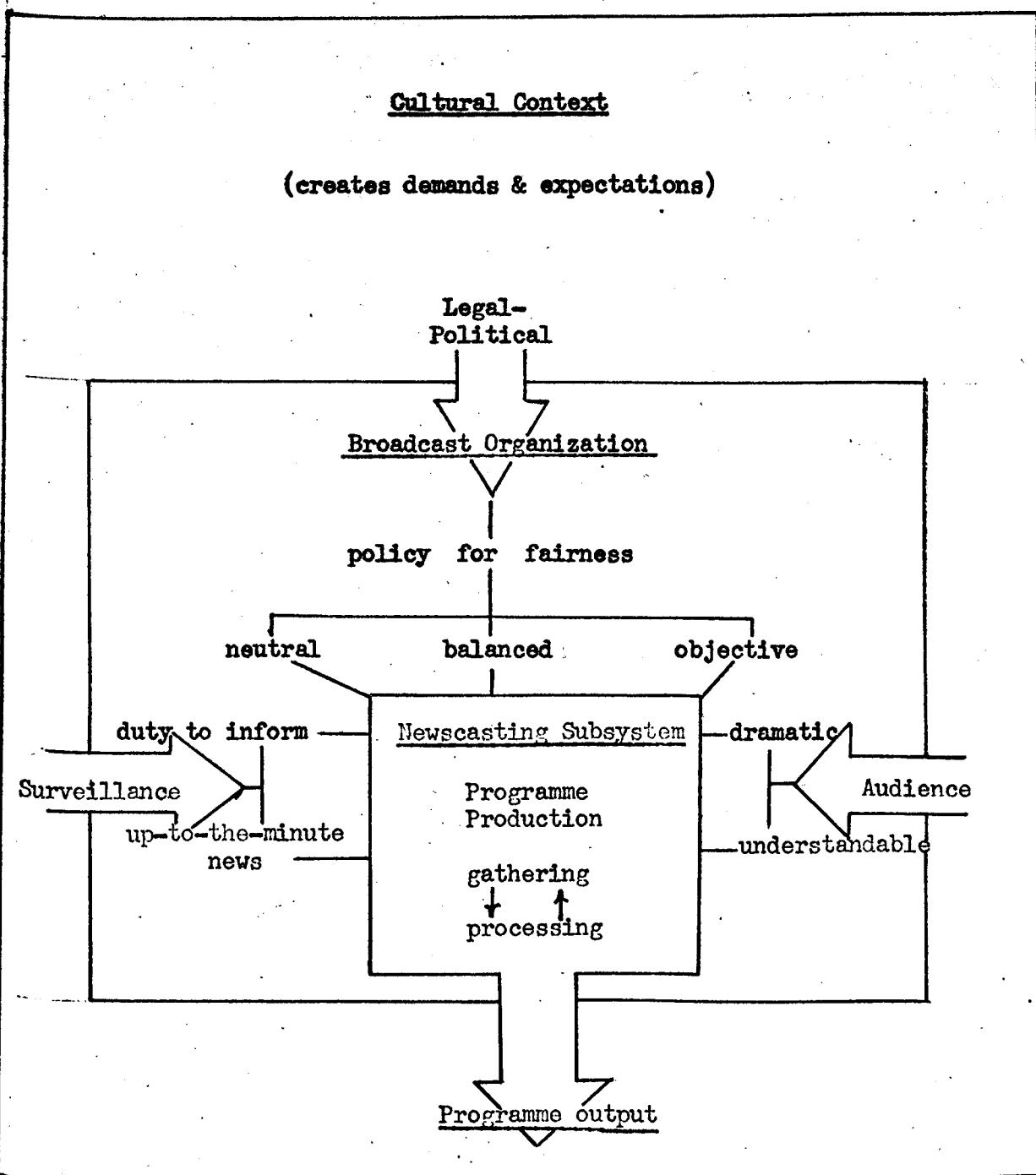
Additionally, the reaction of the news organization's internal structure to the uncertainty in the environment may result in two distinct strategies. 'Reactive strategies' lead to internal routinization within the organization in its response to the turbulent environment (ie. news values) and 'aggressive strategies' which attempt to change the organization's relationship to its environment. The latter not only orients the organization to competition with other similar agencies, but as well highlights the differences between news processing and news gathering (Tunstall 1972).

Underlying Emery and Triste's views of organizations as systems is a third important point. As they say "the technological component not only sets limits upon what can be done, but also in the process of accommodation creates demands that must be reflected in the internal organization and ends of the enterprise". Television news gathering can be regarded as a socio-technical system in which the organization of tasks and decision making are viewed in relationship to the technological basis of the organization - its recording and broadcast technology. This should provide a clearer understanding of the production of news programmes.

2. A good case in point here is the recent BBC strike of newsmen who were reporting the economic and legal factors that ultimately led to the strike long before the strike decision was made.

The above mentioned broad guidelines will be used to orient the discussion of television news organizations within the framework of 'open socio-technical systems'. In particular this will look at the internal decision making and selection processes of the newscasting organization in relationship to the organization's transactions with its environment, so that in the next chapter the examinations of the programme output of these broadcasting organizations can be continued in the light of both the cultural and organizational contexts which produce them. Fig 3.1 shows a general model of the analysis of news broadcasting organizations and its relationship to its environment. It should be noted that this model has a resemblance to Goto's (1969) model of programme decision making, particularly in identifying similar levels at which decisions are made and similar forces that work in the environment of programming. Importantly it distinguishes between the broad organizational policy, the production units interpretation of the policy, and the actual production decision making.

Fig.3.1: Model of News Broadcasting Organization and Relationship to its Environment



This model identifies several aspects of the organizational setting of news broadcasting which are regarded as crucial. Firstly, news production takes place as a subsystem of a larger television broadcasting organization. This means that news production takes place within the broad goals of the total broadcast organization in which they are imbedded, (Tunstall 1970) and are subject to policies and decisions established for the broadcasting organization as a whole. With regard to types of organizations that have developed in the three cultural contexts examined in this study, a distinction has been made, in terms of broad goals, between commercial (ITV, CTV, CBS, NBC, ABC) and public service (BBC1, BBC2, CBC, ETV) broadcast organizations. Policy interpretation of the goal of 'profit' and 'public service' at the highest level will set the general orientation of the organization which can be translated in direct terms of control, into budget allocation, the career structure of individuals, and general policy directives for the news broadcasting subsystem. The broadcast organization itself will mediate between the demands of the environment and of the news production process. This subsumes an organizational hierarchy with a clear separation of function that distinguishes various aspects of the programme production process (Gurevitch & Elliot 1973) (separation of function include management/production, creative/administrative, and technical/production distinctions).

Although the demands from the environment are various, three in particular have been identified as being of prime importance for the newscasting agencies. The first is the legal-political constraints and expectations on the broadcast of news. In particular the broadcast organization must observe and interpret the demands of legislation ³ and be sensitive to the political system that either controls budgetary or legislative aspects of the broadcast organization (Hood 1972). This concerns not only establishing overall policy for the programming of the network,⁴ but also the striving for autonomy from political control while maintaining "due impartiality" and "fairness" for

3. See Chapter 2. particularly Broadcast Act, Charters, FCC, fairness doctrine

4. For example with regard to BBC the proportion of broadcast time spent in Educating, Informing or Entertaining and the budgets for each of these

politically sensitive issues. As Blumler(1970) points out, this is frequently internalized in a defensive way within the organization as a desire to prevent any particular party from taking advantage of the media. In any case it reveals a strong interrelationship between the political system and television news broadcast organizations (Hood 1972).

The second has been termed the audience demand. It has already been noted that in the 'turbulent field' of the broadcast cultural context, media, and organizations within those media, are in competition in a market place setting for audiences. A constant monitoring of the competitive stance of the organization's overall programming will be interpreted by the broader organization and influence the individual production units (Elliot 1970). As Gurevitch and Elliot(1973) state "market forces in the shape of the beliefs and understandings of audience tastes and tolerances held by those in financial control of the industry play the largest part in setting the situation in which the programme maker works". The orientation of television news organizations to other media news organizations has been discussed both in terms of 'expectational sets' (Halloran et al 1970) 'agenda setting' (Epstein 1974) and 'percolation phenomena' (Himmelweit 1970), as well as in terms of pure audience statistics (Emmet 1972).

The third demand mentioned is termed surveillance. By surveillance we mean the cultural expectations within modern technological societies to maintain an 'up to the minute' and credible' distribution of information about events in the 'world system'. Given the interrelatedness of a multitude of factors within the 'world system' in an advanced technological society, the dependence of that society on "knowing what is happening" not only within its own cultural bounds, but on a global level as well, has been established in the habits and opinions of most individuals in those societies (Williams 1966). Broadcast organizations interpret the newscast as their major effort to 'inform' the public, and have established a policy that provides a daily, and up to the minute, regularly scheduled newscast. Not only is the policy to monitor events within the 'world perspective', but to do so on the time scale of one day's events. The costs of this world-wide surveillance are considerable and place a heavy demand on the allocation of resources within the broadcast organization (Epstein 1974), and demand routinization and standardization in search patterns

for identifying and presenting the day's news (Tunstall 1970).

These broad demands from the environment, as interpreted in the broadcast organization's policy, become the operating constraints of the news production system. Breed(1960) has argued with regard to the news room, that executive policy is maintained, without the articulation of that policy, by subtle organizational means of communication. He suggests that "a description of the dynamic socio-cultural situation of the newsroom will suggest explanations of this conformity" to executive policy. The factors that he identifies in this process are:

- 1) institutional sanctions (firing, promotion, using stories)
- 2) feelings of obligation and esteem for executives
- 3) mobility aspirations of staff
- 4) absence of conflicting group allegiances
- 5) pleasant and statused nature of the activity
- 6) news as value in itself for reference group-public service

These factors have been identified as operating in the television news room as well (Epstein 1974, Burns 1970, Hood 1972). Though policy statements are rare, acceptance of executive policy is evident, although uncodified and more subtly manipulated than in many organizations (Tunstall 1970). Since executive policy can be established and enforced in the television news organization, it is worthwhile briefly examining the way in which the demands on the organization are interpreted and translated at the executive levels.

Surveillance

As pointed out previously, both public and commercial news organizations interpret their role as public service-for keeping the majority of people informed of world events. Since television news can be one of the more costly programmes to produce per minute, it must demand a proportionately high budgetary commitment, and this has been an important factor in concentrating American news at the network level (Epstein 1974). This in turn has led to a rise in the status of the 'newsman', and even a star system for reporters and announcers developing. As mentioned before, this entails the scheduling of news as a regular and dependable prime time.

television programme, that fits into the daily patterns of the viewers. In all three countries a continual expansion of the news service has been the major trend in programming, without equivalent changes in other forms of information shows (news magazines and documentary specials). The news has become the visible means of discharging organizations' obligations to 'public service programming' in all three countries.

Audience

Audience factors have equally played an important part in establishing the news as prime time viewing, by merging the objectives of the news programme with the organization's overall goals. The competitive stance of the news programme, interpreted from audience statistics, play an important part in this executive level decision making (Elliot 1970). As Gans(1972) points out, these statistics are most important when they go down, and form the basis of the executive's knowledge about the nature of the audience. As he further states "newsmen believe, and research tends to bear them out, that audiences are neither attentive nor loyal and must be attracted to the individual story". These notions about the audience lead the way to an emphasis on simplicity and impact as the guiding principles for mass audience appeal. For this reason, audience statistics are taken into account less for controlling content, than for presentation format (Gans 1968). Tunstall has made this point in a slightly different way, by differentiating the audience goals of the news organization from the non-revenue goals. He asserts that although the 'news gatherers tend to support the non-revenue goals of the organization, the news processors'(here including executive level) align themselves with the overall organizational goals to a greater degree. The news processors tend to influence the general news values - which he associates with audience impact appeal. Evidence of these audience factors can be seen in the gradual changes in the models and format of television news in the three countries⁵ under study.

5. Changes of format include: up grade to half hour programme in 1963 for America and 1969 for Britain, news introductions and formats introduced including increased film reports, back projection, and inter-announcer conversations. In a BBC2 TV discussion programme July 1975, a move towards more casual one hour news reports was predicted by Ryan for ITV and BBC.

This is true even of the most public service oriented of networks, the BBC. Burns (1970) in his study of the BBC has commented on this point with regard to the devolution of the 'Reithian ethos', and discerns two factors. The first is the identification of the BBC, via executive decision making, with entertainment goals for television news. The second he relates to a 'consciously circulation-building element' which has "entered into the handling of news, and comment on news: successful presentation is related more and more to exclusive and sometimes sensational interviews and reporting". The ongoing changes in the format of television news in both commercial and public service broadcast networks can be seen in the light of these pressures for maintaining and improving on the news as an impactful and entertaining television programme. The particular broadcast organizations' goals and policy with regard to audience factors should be manifest in format for television news, as in other programming factors.

Legal-Political

Legal-political factors have been cited as playing a decisive role in executive decision making for news as well (Hood 1972, Blumler and McQuail 1970). As pointed out in Chapter 2 the economic and legislative relationships of British, American and Canadian television organizations to the political system differ. However, in all of these situations the substance and application of a common central demand-to maintain 'due impartiality' and 'fairness' when broadcasting controversial issues-is extant in the organization. In the first instance this means that television news must avoid overt editorial opinion, especially on politically contentious issues-although not necessarily avoid explanation. As Blumler (1970) points out, the media producer's view of his job is one of deciding which events are important on a political level, and who should speak for those issues. The ability of the media to control these factors, in spite of efforts made by the politicians themselves, was also emphasized by Blumler, particularly by the use of the confrontational model of debate. The effect is to reduce conflict of ideologies to conflicts of personality (Halloran et al 1970, Epstein 1974), and to see issues

in terms of polar confrontations of opinions. The enhancement of the autonomy of the media in deciding these issues becomes a major factor in determining 'fairness' as the prevention of either side from using the media to its own gain. As quoted in Warner (1968) an American television executive has put this succinctly, "As long as we are accused of being too republican and too democratic, then we know we are fair".

This notion of fairness as 'critical opposition' to everyone creates conflicting demands in the newsman's role. The newsgatherers themselves are dependent upon the regular sources of information (politicians) and are unlikely to jeopardize their relationship to those sources (Groombridge 1972). The conflict must be maintained between the two sides of the argument and not between the media and any particular politician.

On the other hand, Elliot(1970) has pointed out the reliance of television news on high credibility formats. This means a dependency on factual statements, and articulate and concise spokesman. To the American Executive "experts are dull, and the attention span of the audience is short", so that long explanation and interpretation are undesirable. All news executives agree however that good visuals are the key feature of a news story, and the editorial emphasis of visuals, as opposed to commentary, is much harder to detect (Epstein 1974). In reaction to the need to maintain impartiality in reporting, the organization generates three possible policy interpretations for the news producers-balance, objectivity, and neutrality.⁶

Balance as a model for reportage means proportionate representation of the major sides or biases identified for any particular issue. It is legislated in the television act (Britain, Canada) for political party broadcasts, although interpreted by producers more freely at election time⁷. In non party related issues that are politically sensitive this can equally be interpreted as providing two opposing views on the issue. In the United States, the balance aspect

6. The Annan Committee(1977) Report has recently noted a similar trilogy, except they use the concept of due impartiality where I have used objectivity.
7. As Blumler (1970) pointed out, the change in producers interpretation of 'balance' was much easier at an election time when politicians are under pressure to maximise their media exposure.

of fairness is likewise part of the fairness doctrine, and takes on a similar meaning for interpreting coverage of political party related stories.

Objectivity as a broadcast policy, as interpreted by television organizations, means the maintenance of highly credible, uneditorialized stories with a sense of direct access to the news event. Direct access to events can be by means of visuals, or by mobile and multiple reporters; both cases entail a quality of immediacy in presentation. In addition, a meaningful, informed and complete framework that explains an event may enhance the sense of being fully informed, usually presented by an 'expert' or 'analyst observer'.

Neutrality, as a policy for the coverage of sensitive news, offers another alternative. It emphasizes the use of neutral sources of information as the basis for the presentation. Only the bare bones, the facts, of a story are covered. In particular the use of statistics, quotation and basic description, form the elements of a policy of neutrality - undigested data - news coverage.

Each broadcast organization may weight interpretation of the 'impartiality' demand (as established within the legislative groundrules) in terms of these three possible models for news reportage. Together, or independently, they provide the means by which the broadcast organization can maintain independence of direct control from the political system, by attempting to minimize its impact on that system, or any others importantly related to it.⁸

8. If television news were used as a change agent it would not only attempt to increase the impact of information, it would have to lay down careful policy directions for that impact, which would tie it to government as an agent of social change (as in socialist countries). For example, rather than the factual reporting of economic statistics with regard to the impact of crop failures on inflation; information that would change behaviour of consumers with regard to that crop failure would be broadcast. The policy which avoids such stories can only be seen in comparison to other kinds of presentations of news stories and is generally subsumed within the 'mirror role' for the news media.

These policies, established as unwritten guidelines, internalized in the day-to-day operations of the news broadcasting agency, provide the basis for the work procedures of the television news staff. ⁹

Summary

Operating within the demands of the broadcasting organization, the news production unit must accommodate to these pressures and assimilate them into the internal structure of the newscasting agency. As argued by Emery and Triste(1969), newscasting as ^{an} organizational system will attempt to establish a steady state working situation that can respond to the fluctuations in the environment without modification of its internal structure. In the surveillance of the environment this means the establishment of working procedures that can identify and report daily on the major areas of 'news interest' from the vast flood of events that compose the 'potential news stories', and discharge the perceived duty of the broadcast organization for up to the minute news information. With regard to fluctuations in the political system, this means the establishment of procedures that minimize the political impact of news broadcasting (Hood 1972, Burns 1970), particularly by not offending either the political powers that be, ¹⁰ or the political sensibilities of the public. Finally, it is noticed that with regard to audience factors, pressures exist which tend to submerge the television news programme into the broader goals of the television broadcast organizations' concern with large audiences, and integrate the news into entertainment oriented values that permeate the mainstream of television broadcasting.

9. In this sense, the 'mirror role' becomes a paradigm. Thomas and Bennis have modified the notion of 'paradigm' as developed by Kuhn(1962) to be "That dimension of a management ideology that informs the posture that an organization assumes". They go on to explain "a paradigm emerges from constellation of beliefs and the assumptions which individuals in the organization, particularly key decision makers, share about the nature of their organization and its environment" pg.12.
10. Burns(1970) comments that the Reithian version of this was support for the government in power-authority in general.

Section 3.2:

News Values and the Audio-Visual Structure of the Newsroom

Most studies of the newscasting organizations have referred to those operational but unwritten decision procedures as 'news values'. Since the selection process is complex, the news values reflect not the individual choice of the reporter but the series of decisions made within the organization at various stages of the editorial process (Tunstall 1970, Halloran et al 1970). Included within these will be decisions made about the internal organization of the newsroom itself: budgeting, assignments for coverage of stories, and various aspects of editing and presenting the news story. To the individuals involved in news selection, however, the criteria for newsworthiness are neither conscious nor articulated. To the casual observer, the newsroom appears an exercise in anarchy and chaos. The newsmen themselves are left with the tautological statement that 'news is what is newsworthy'; they have no clear understanding of what the internal selection processes are of the organization in which they operate (Tunstall 1970, Epstein 1974). In fact, Tunstall has argued that these are incapable of being clearly articulated. There are no explicit criteria for either evaluating the 'newsworthiness of an event' or the suitableness of a story write-up, nor is there a methodology for gathering news. All is left, as Breed (1960) insinuates, to the implicit "socio-cultural situation" of the organization.

It is for this reason that data on news values can only be derived from studies of the organization as an operating entity, (Epstein 1974) or inferred from studies of news programme content. Fig. 5.2. relates a variety of studies of newscasting organizations which have attempted to describe newsvales as they operate within the newscasting process. They are presented here regrouped in terms of the demands placed by the operating environment of the news organization on the newscasting process. The most striking feature of these studies is the high degree of agreement on essential aspects of newsvales, although some studies are more detailed. This is irrespective of whether the newscasting organization is commercial or public. It also reveals the degree to which the stabilization or routinization of the selection procedure can take place without the clear written or consciously detailed guidelines (which would limit the organizations flexibility in response to the fluctuations in the environment).

Fig# 3.2: Studies in 'News Values': Regrouped in terms of demands made on the broadcasting organization

Author	News Value		
	Surveillance	Audience	Legal-Political
Gans (US)	--up to the minute --day to day	--of national interest --simple --familiar --dramatic stories --people not events	--specific rather than general
Epstein (US)	--preparation time	--filmic value --star correspondents	--people in power --political balance
Warner (US)	timeliness	--number of people effected --importance to public --audience intent --drama for impact	--political balance
Galtung (Norway)	time span --fulfills expectations --issues remain issues	--clear cut --relevance to self and culture --personification --exciting --novelty --negativity	--elite persons --balance and completeness
Halloran (Britain)	--fulfills expectations	--personalities --novelty --negativity --action visuals	--balance --description over explanation
Ways (US)		--simple dramatic familiar	

This is particularly important when the complexity and the variety of operations that are carried out within the news organization are recognized. The fact that news values are consistent as a description of the decision process, however, does not necessarily reflect a commonality of 'news values' applied at all stages of the process. Rather it may reflect the similarity of the components of the process and their interrelationships (Tunstall 1970). For example the cameraman and the interviewer may be operating with different role-specific news values, the interrelationship of which determines the output of the crew, but which on reaching the editor may have further specific news value criteria applied, and so on throughout the assembling of the story. This fact is particularly important when the technological base that orients the newsbroadcasting process for television is considered. Determined by the camera-sound-edit broadcast technologies, a variety of specialized ¹¹ task-based decision making, with appropriate role aspects, will underlie the sequence of activities that produces television news programmes. News values reflect the aggregated interrelationship of this variety of activities, and not a unified field applied similarly at every stage in the process. Moreover, they are specifically related to this audio-visual separation in the television technology.

It can be further seen that news values reflect and influence decisions made with regard to both content and format of the news story. Content decisions refer most fundamentally to 'what' will be selected for the news broadcast, whereas format decisions refer to the arrangement of that content, or its structuring as a broadcast entity. Both these decisions are related as well to the audio-visual technological substructure of the 'socio-technical' system. Although content and format can be separated for the analytical purposes of understanding how they operate within the news selection process, it is recognized that in the actual decision making these are interrelated. The following analysis will attempt to outline some of the factors that influence the selection of content and format for television news, and their interrelations.

11. Even the reporter role can be regarded as a specialized generalist.

The Structure of Decision Making:

When Vice-President Spiro Agnew accused the news broadcasting in the United States of being biased, he was referring to the possibility that a small number of like-minded men control the decision making process and influence purposefully the programming of television news for political ends. The two assumptions of his argument are that, firstly the news broadcast process is centralized enough to be controlled by a small number of men, and secondly that these men who are of like mind can consciously manipulate the output of medium with regard to newscasting. For the United States Epstein (1974) and Warner(1968) are both agreed with Agnew on the first issue(i.e. Epstein estimates 60 decision makers for the construction of television news in the three main networks), and this is likely to equally represent the centralization of national newscasting within all the broadcast organizations. As Warner(1968) suggests "television news, because its compression of form imposes special editing and news gathering requirements, is subject to much greater central control than is the case with the average newspaper". He further points out that most of these television newsmen know and interact with each other, on a regular basis. Most researchers into the field disagree with Agnew's second point, however, that a conscious bias, based on a uniformity of political positions, is the basis of news selection. Hood(1972) suggests in fact that a number of gatekeepers is responsible, each applying at a variety of levels in the hierarchy some sort of criterion for the construction of the news programme. Gans(1968) further, and more particularly, asserts that "no one person controls news output because of the different role responsibilities involved". Although it has been suggested for both the British (Burns 1970, Hood 1972) and the American (Warner 1968) newscasting organizations that a homogeneity of class and values exists with regard to the personnel, this broad base consensus would bias the news towards a broad middle class framework, similar to that of the majority of its audience; but not as specifically political in bias as is charged by Agnew. The general position of most researches into television news broadcasting organizations are summed up by Elliot(1970): "The model of television production suggested by this study is a relatively self-contained process following established technical and occupational guidelines".

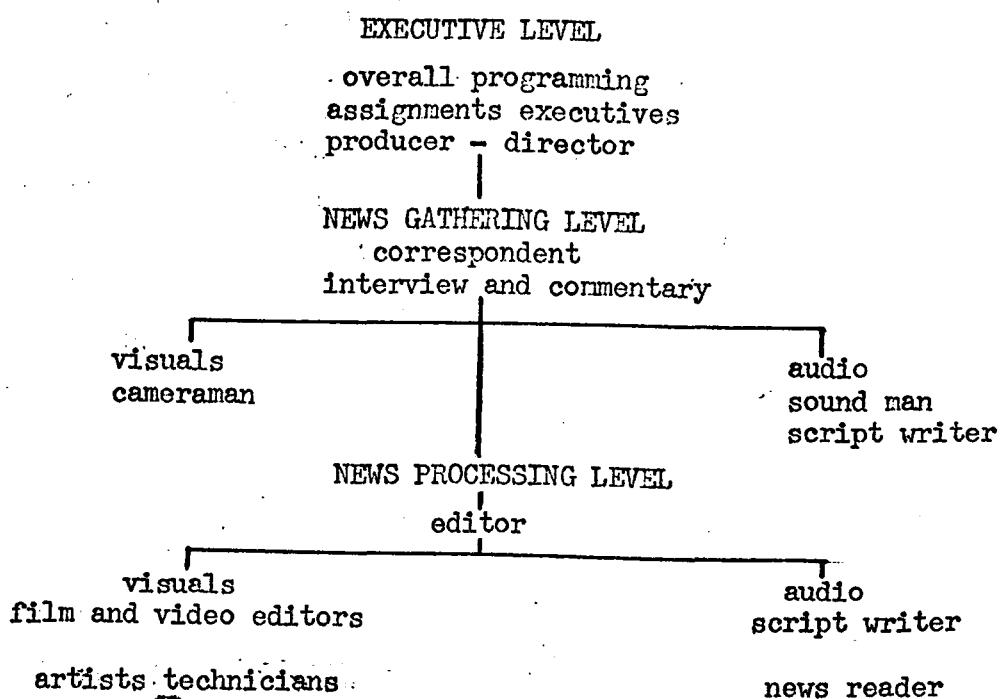
Epstein(1974) has suggested that the news selection can be viewed as four processes that reflect the hierarchical and organizational structure of the news organization including:

- a) assignments - stories to be covered, who to cover them, what kind of crew to send
- b) producer/audience decisions - broad guidelines for kinds of stories and emphasis, balance in coverage, preference for formats
- c) selection in newsgathering - who to interview, what question, where and what to film, slant on event, general story line, reporter conclusions
- d) selection in editing - selection and organization of visuals, copy story organization and presentation format, including presenter, and presenters' body language.

These selection processes he regards as reflecting the various task orientations within the structure of the newscasting hierarchy. At the top of the hierarchy is the executive role, concerned with the overall quality of the programme and concerned with the coordination of the whole process of the production of the news programme. On the next level are the producers, who maintain responsibility for the day to day process of assembling the story, and control the overall editorial responsibility for individual news stories. The third level consists of the correspondents or news gatherers who perform the actual work on any news story, interviewing and reporting events and directing the crew on the job. The final level is the technicians including camera and sound men, editors (film and video) and other technicians required for the television production. This level is characterized by their technical knowledge specific to the function they perform and a pride in their craft. Leroy(1972) has characterized the levels of the organization differently, differentiating between news director, newscaster, reporter, cameramen and miscellany. Warner(1968) in his study of American newscasting agencies has identified the various task related role functions as follows: The Vice-President in charge oversees the editorial policy in relationship to budgeting and the overall smooth running of the programme. He lays the ground rules that set the limits to freedom of the various other positions. The executive producer is in control

of the news selection process and has the final word on the news line up for any particular day. The associate executive acts as a news editor maintaining responsibility for the details of reporter and crew assignment. The news editor coordinates the efforts of script and film editing. The writer is the translator of the producer's guidelines, working autonomously from the wire service inputs as well as monitoring various other media news sources for stories or possibilities. The reporter is in the field, in charge of the camera crew, and selects the point of view or slant on the story. The newsreader or presenter can make slight alterations in the commentary for easier reading but presents the story as given within the time allocated. Although the organization can be characterized as a hierarchy, there are certain elements of decision making that have autonomous and independent action. Burns(1970) has argued that in fact the organizational structure reflects both lateral and horizontal decision making authority, in which specialists who are differentiated by their function with regard to the audio/visual technology act autonomously at various levels of news processing. The following organizational structure might represent this differentiation.

Fig.33: Organization in the Newsroom and Broadcast Technology Specialism



This decision making structure more accurately reflects Halloran et al's (1970) and Tunstall's (1970) descriptions of the news programme production, in which they describe the independence of decisions made by cameraman on location and the script writers, editors and producers. The newsmen operate with a high degree of specific task autonomy, but within the limitations on this autonomy entailed by his place in the news organization. As Hood (1972) states "his judgments are guided by what he believes to be possible or tolerated by the organization he works in", and are communicated informally by implied procedural rules.

However, with regard to the 'newsgatherer', Tunstall (1970) has pointed out that they are less committed to the overall institutional goals than the news processors. The three that Tunstall describes for the journalist-occupational, colleague/competitor, and employee-place a variety of demands on the individual by orienting him to his peer group as well as the institution. The peer group values, of autonomy in decision making (Burns 1970) and responsibility to the public, must be mediated with the overall organizational concern with the audience oriented goals. Tunstall suggests that the mechanism by which the 'limitations' are transmitted down the hierarchy are centred around the control of assignments and the amount of re-editing that a journalist's stories receive, as well as the normal career structure oriented mechanisms. In addition the number of stories that the journalist has broadcast becomes a major indicator of his personal success. Halloran et al's (1970) study shows the effectiveness of this structure, in which the journalist performs his task fully understanding the expectations and limits of acceptability of his superiors.

The situation for the technician newsgatherer, such as the cameraman, is different. As Burns (1972) points out, he is a specialist, unlike the generalist journalist. His commitment is to the carrying out of his specialist task in terms of a technical competence. He is not as oriented to the public service values of the journalist, and has little concern with the content of the news story. His training developed his technical skills in terms of the 'cinematic or filmic' values of the film world. This aligns him closely with the executive level of news production who feel, as Gans (1972) states that "above all TV news films must have dramatic quality". As pointed out by Burns

(1970), the technician is less upwardly mobile in the news organization's hierarchy because of his commitment to a technical speciality, and is therefore more closely tied to the carrying out of his specific task function for recognition and success. As Halloran et al(1970) further point out, this orients him to increase the amount of work that he gets accepted by his editorial superiors.

Hood(1972) summarizes this phenomena as follows;

"the narrow social range from which the staff of television organizations are drawn and the immense pressures within the organization-among them are job security, team spirit, indoctrination with the ethos of the working group-are sufficient to ensure that ¹² the ground rules of consensus politics are not broken".

It seems that although the news process includes a variety of tasks with different selection procedures, the structure of the news organization is such as to instill an overall set of guidelines in the newsgathering process that align it with the overall directives of the organization.

Professionalism

These observations seem in direct contradiction to the beliefs of newsmen themselves. Although by and large as Ways(1972) asserts "journalism is silent about its own performance and problems", newsmen believe themselves as professionals to be working within the value system of the profession and not the organization (Epstein 1974). A unified group norm is not established as a whole within the newsroom, but rather reflects the relationship of the profession to the broadcast organization and its technical factors (Epstein 1974). As Gurevitch and Elliot(1973) state "the structure of the professions as a whole is determined to a considerable extent by the technological base of the media". The professional allegiances align the various roles of the news process to peer groups outside the particular organization, and as Hood(1972) asserts "the demarcation line between technicians and creative elements is clearly drawn and institutionalized". In particular this means a division of the cameraman, film and video editor and sound

12. Stuart Hood, The politics of Television in McQuail D. Sociology of Mass Communications

man from the journalistic professions. This is reflected in professional associations including the unions. The result, as Gurevitch and Elliot(1973) argue, is to reduce conflict of content to that of style and quality.

The journalist or editor, probably coming from newspaper or radio journalism, has strong allegiances to the field of journalism. He is concerned about his autonomy in decision making(Blumler 1970) and relates his standards to those established in the broad field of journalism (Weinthal and O'Keefe 1974). Unlike an expert, who may be concerned more with a particular knowledge based area; as a generalist his commitment is to the process of reportage, and he maintains close links with other journalists (Epstein 1974). As Halloran et al. (1970) point out this entails a dependency of the journalist on others in the same profession to establish the guide-lines for the 'newsworthiness of any event, or the brilliance of any scoop'. Likewise the journalists mutually depend on the same regular sources of information, and like Lasswell's opinion leaders regularly refer to a variety of media to establish these criteria (Gans 1972). The effects, as Gurevitch and Elliot(1973) state, is that "the importance of the professional creed is that it provides common standards of judgement to facilitate work flow" which in turn "helps the organization to articulate these by providing a legitimated mechanism of control and coordination" that does not violate the importance of autonomy established in both the nature of the job and the journalist's view of it as a public service profession.¹³

The professional allegiance of the technicians is different. Of technicians in terms of the final news story, the cameraman and the film and video editors are the most important. Like the soundmen and other television engineering technicians as well, these roles will primarily be concerned with the quality of the technical process, in the first instance. As Epstein(1974) puts it "he is a technocrat, and the knowledge of the running of one of those machines is sufficiently difficult to demand all his concentration". However, because of television news' dependence on pictures of the most vivid kind, which make it the powerful medium of communication, the cameraman and visuals editor have added concerns beyond just technical reproduction. As Robin Day(1970) points out "in the case of events or issues that do not have

convenient visual existence, television tends to treat them inadequately". The cameraman and visuals editor are more closely associated with the values and practices of film world, and that of entertainment television as a reference group. Using the grammar of filmic image as a basis of both the 'setting up' and taking of shots, and for editing them into sequences, the criteria of the reference group orient them to exciting, dramatic, unusual, action packed sequences. This is frequently summarized in the adage "if it moves, film it". The premise of the visuals is 'emotive impact' rather than communication, guided by 'pictorial value' as an aesthetic. As Epstein points out, they have little commitment to the particular issues they are dealing with, and tend on the whole to be more politically conservative in their attitudes than journalists. As Gans(1972) states in his rejection of Spiro Agnew's accusation of intentional bias in television news "most of the decisions which the Vice-President ascribed to the personal bias of the newsmen are actually based on the desire for exciting film". It is not only in the selection of which visuals are filmed, but also in the editing process, that the relationship to the 'pictographic' professions really has its emphasis. Since less than 5% of the film of an event is actually used, it is in the editing, that "film is turned into illusion and drama". As Epstein states "depending on what fragments are selected and how they are ordered, any number of different stories can usually be edited from the same material". Halloran et al(1970) argue that this selection process is non content-related, in that the reordering of visuals is for dramatic and pictorial effect, rather than to slant the story in any direction. Epstein has outlined some broad procedures for this editing process in which the 'visual story' is put together.

- 1) the chronological order is broken down-sound used to make coherent the visuals, and visuals edited to create continuity of sound by use of cutaways.
- 2) bad quality sound and film are eliminated-the controlled event has clear advantage in getting in the news since spontaneous events are hard to film or record.

13. The degree of cross-media similarities in news coverage values may well reflect the level of professionalization of journalism

- 3) cut out the dull moments and concentrate on the action
- 4) the use of sound backgrounds that are already classified and recorded

In addition to this we may add a need to give the story an overall structure of its own, an overall coherence; even if this structure is just for a 'talking head' interview sequence in which the background and lighting for the filming have some importance. In fact, Michael Swann (Times 1975) of the BBC is quoted as advising newsmakers to be mindful of the context in which they are filmed and to avoid blatant inconsistencies in their presentation. Reuven Franks¹⁴ comments that the view that "the power of television journalism is not the transmission of information but the transmission of experience, joy, sorrow.....these are the stuff of news" may not only represent the attitudes of American television news executives, but the general professional values of the 'filmic professions' on whom they depend.

The relationship between the two professional subgroups is important for understanding the operation of the television news process. Leroy (1972) has carried out a study of professionalism in TV journalism, and using Hall's professionalism scale has compared newsmen at various levels of their occupational rank with other professions. His findings tend to support the factors that have been outlined with regard to the separation of professions in TV journalism. He points out that television journalism is an evolving profession and in a process of change. It is for this reason he attributes the TV professions overall below median rank on the five scales for professionalism. On the professional organisation of reference group scale, only accountants ranked lower, whereas on the belief in public service the journalists ranked high-just below doctors and lawyers. Although a variety of control variables were used, the job category maintained the greatest influence over the degree of professionalism, with news directors, (editorial executives) ranking significantly higher on feeling of autonomy scale, and cameramen lower on the belief in public service scale. Although the picture remains incompletely documented, it seems that as well as an

14. Head of NBC television news as quoted by Epstein (1974)

occupational allegiance to the organization in which they work, newsmen, depending on their role in the newsgathering process, may be influenced significantly by either their journalistic, or filmic reference group for the establishment of the uncodified operational procedures within which they work.

The Editing Process

It is in the editorial process that the differences in the values and selection procedures of the various news gatherer roles must be reconciled for the production of the news story. Ultimately the story must exist as a clear and complete whole. This consists of two options as outlined by Epstein(1974), of either "filling out a limited number of story lines with the appropriate pictures", or having the "film dictate the story line". This blending of the spoken and visual aspects of the news story forms the basis of the editorial activity.

The value of the visuals is always of extreme importance to the news story, even if this just means the addition of visual symbols, stock photos or drawings in back projection to, or over, the commentary of the newsreader, reading a scripted story or wire service despatch. However, it is in the more costly and complex stories that include filmic sequences that the true effort of the editor is called upon. For as Halloran et al(1970) have pointed out, the differences of news values and task definitions, applied at various stages in the news gathering and editing process, may result in stories that have 'contradiction in sound and image'; particularly since these task definitions are associated with the modal separation of the news gathering and processing equipment, and hence the separation of those persons working on either the audio-linguistic, or visual aspects of the story. These contradictions are not always in terms of precise inconsistencies, as they occur in the Halloran study, but may in fact be differences of emphasis or perspective as well. In any case, attempts will be made to assimilate the contradictions into the inference logic of the story (Epstein 1974); or by the avoiding of an explanation of the event and leave the inference implicit

in the visuals (Gans 1972). Frequently however subtle inconsistencies of sound and image may persist into the broadcast of television news ¹⁵.

Halloran et al (1970) in their study of the television coverage of a demonstration have pointed out how the separation of sound and image in the editorial process can bring about these inconsistencies between modalities which further indicates that the nature of the television production and editing technology plays an important role. Frequently for example, those aspects of the event for which the visuals have been gathered, become the focus for the coverage of the whole story. In Halloran's example, the assignment and positioning of camera crews in terms of anticipations by the newsmen about the event, played a significant part. This includes not only the assignment of camera crews to events, but to particular aspects of those events. Epstein has indicated that this is related to the 'economic logic' of news selection. Those events for which prior knowledge exists allow the necessary time to despatch and set up the camera equipment. Since the expense of the camera crews is high for the coverage of events, the assignments editor must carefully choose the stories that promise either to be exceedingly newsworthy, or 'visually exciting'. As Epstein (1974) remarks, the NBC had at least one day's warning from the newsmakers on at least 90% of news stories covered, and unpredictable events accounted for less than 2% of all news coverage of the evening news. Boorstin (1964) has called these events prepared for television news coverage 'pseudo-events', and points out the degree to which this reveals a mutual interdependency of the newsmen and the news makers (this includes IRA bombers who give adequate notice directly to news agencies to insure news coverage of the events). Given the expense of the camera crew, the selection of perspective taken on the event must justify the coverage given, and this means both the creation of non-events ¹⁶ and the emphasis of aspects of events that justify visual coverage.

15. Astonishingly, a number of unrecognized outlandish contradictions continue to occur in television news in spite of the editors' attempts to create a unity of story. Some of the most humorous examples have involved, for example, a smiling full face of Heath in a crowd in which the 'sound over' record included the shouts of Sig Heil, or a description of the 'terror ridden streets of Belfast' in which the visuals show the normal bustle of a busy day in the City.
16. A non-event may consist of a person attempting to escape from the camera responding with a no-comment, or a prisoner brought to court with his face masked; in each the visual presentation is of the lack of information sought.

In fact the ability of the news to totally fabricate news stories, and generate their own news events, is also important. For example, a story on the Soyuz-Apollo Handshake over Bognor Regis was totally fabricated by BBC newsmen. The only prediction about the event from NASA sources was that the exact location of the prediction could not in fact be made. However, several news stories, one including interviews with residents of Bognor Regis about the town's 'day in history' had generated enough false hopes in the residents that they had brought out flags for the occasion declared by the BBC newsmen. The expense of assigning a full crew to a story, and the time needed for the filming and processing of the visuals for the story necessitates a careful control over the limited resources of the news agency.

Foreign assignments increase the costs astronomically, which means that in order to get visuals from a foreign story, either the event must be predictable and important, or likely to be of long term; otherwise wire service coverage will be depended upon. In this manner both the geographical features and time scale of events become important dimensions of the news selection process. As well, the interplay with other media becomes important in terms of anticipations about events that are known to be about to occur. As Halloran et al (1970) point out, anticipatory stories may not only raise the perceived importance of some news events, but as well set the stage and provide the interpretive framework for it. Although most newsgatherers believe that reporting can be done without the biasing of the story, selection in assignments entails a bias that long precedes the coverage of the event itself. Since an event must be anticipated to be filmed (but not necessarily for reporting) and since, once filmed the story is more likely to be broadcast because of the presence of visuals, certain kinds of events are more likely to become television news than others. As Gans (1972) states, this influences the actual content of the news in terms of the time scale and the visual drama of an event. If radicals disrupt a convention, then the emphasis in visual terms is the disruption and not the opinions or reasons for the disruption. In broader terms, this leads to an emphasis in the kinds of events that are easily and economically filmable (persons, disasters and action events), and to the absence of coverage of events that are more difficult to translate into

visual stories (slow social change, social forces, events with subtle human impact). Groombridge(1972) states that there is a logic to the 'not seen' on television news as well as to the continually occurring events. This can be directly related both to the logistics of gathering news and the selective biases of the news values. It may be further worth mentioning the ability of the presence of the camera and the crew to significantly alter a person's behaviour. Not only does this elicit expectations of how a person should be seen to behave 'on television', but it makes the respondent aware of the 'significance of the event' he is being interviewed or filmed for.

Halloran's(1970) and Lang and Lang's(1968) studies have documented these aspects of televised news by comparing them with direct observations of the event, emphasizing television news ability to 'transform'. Epstein(1974) has summarized the relationship of the economic logic of visuals to news story selection and the operating rules of the news organizations.

He includes:-

- 1) the length of the film report and good visuals
- 2) the amount of time and money available for an individual story item
- 3) the areas that are heavily covered-geographic, international, political
- 4) the model of the event -conflict resolution, argumentation, hi-lite
- 5) the ration of prepared to immediate news
- 6) the general categories given preference in coverage

These factors reveal the essential contradiction within the news broadcasting organization between the dual values of 'immediacy' and 'up-to-the-minuteness' and the need for the organization to have extensive planning and a high degree of control over the coverage of the news story and its presentation.

It is subsequent to the editorial selectivity in assignments which is in itself related to the need for 'aggressive' competitive strategies on the part of the news organizations, that the more usual editorial process related to the rearrangement of the gathered information takes place. The variety of materials that may be utilized in a story include: newspaper coverage, radio and wire service despatches, wire photos, film footage, tape recorded or telephoned interview and comment,

as well as still photos, artist renderings and action visuals on video tape or film, and a scripted news story. The editor's job is to choose and organize these materials into a news story-ultimately which will be presented in terms of the television technology as a combination of vision and sound. The visual material can be rearranged and edited for both timing and sequencing, 'sync' sound interviews organized and edited in, and photo stills arranged. Sound options may include actuality sound recorded on location, or recorded sound and music which may be 'tracked' over. Interview segments may include 'sync' sound or can be talking heads with a commentary track over. Questions asked by the interviewer may be included or cut, as may the cutaways to the interviewer as part of the interview. Finally, the story will be organized by a commentary, either by the newsreader, reporter, or editor, or some combination of them. The commentary may make a variety of points in many different ways, and can be interspersed anywhere throughout the other kinds of materials. Given the large number of options and material that are available for the different stories, in conjunction with the limitations of the technologies used, the news story is constructed within a format. Although a variety of factors influence what events are selected for broadcast, and what aspects of the event, or perspective on it, is taken, it is the basic structure of the broadcast and production technology that has a major impact on the 'format' of the television news story.

The format of the news item reflects the underlying operating procedures used by the editorial staff in the assembling of the news story, and through the routinization of production practices facilitates the role of the news gatherers as well. For example, the cameraman will develop expectations about the kind of shots that are used by the editor, and his training will inform him of the kinds of coverage that facilitate the editing process. This will be equally true for the reporter, in terms of his choice of location, the questions he asks, and the nature of the report he makes of the event. Even the sound man will have notions of what will be required for the construction of the news story. The routinization of editorial and gathering procedures results in models of the format of television news stories that can be mutually used by the various persons in the variety of roles

that underly the development of a news story. As well this standardization of format can extend an implicit control over content without challenging the autonomy of the newsmen to cover the story in the way he wants. This is assimilated into the very activities and task definitions of the newsmen, yet maintained separately by the audio-visual technological base of the equipment, and skills that newsmen exercise. Although each member of the team goes about his job gathering and editing in terms of his role, he also knows the broader framework within which his aspect of the coverage can be integrated with the other elements of television reportage. The basis for this will be the arrangement or format of the story. For example, although the sound man's prime concern is for the technical aspects of sound reproduction, he also knows to utilize a mike system that separates the voice of the person being interviewed, from both that of the interviewer and the background sound. Although he has no say in 'what is being said' his ability at isolating the 'voice' of the interviewee, will determine both the usability of the sound portion, and the possibilities for editing or for superimposing the sound sequences. These factors all contribute to the ability to 'edit out' the questions of the interviewer, to use 'sync' interview segments, or to utilize sound over techniques. Likewise the camera men and film editors must utilize operating definitions that detail, when, what, and how to use the camera. These include implicit understanding of visual grammar in terms of taking or constructing location shots, situating interviews, or filming shots for stories that provide the 'inference logic' of the filmed sequences. The separation of modalities is represented at both the gathering and editing phases of news processing. It is noted that separation of sound and vision based on the task differentiation in technology of production, leads to a distinction between those roles that operate within the linguistic codes (interviewer, sound editor, newsmen), and visual code (cameraman, film editor, graphics). The editing task, then, consists of the orchestrating together of these various elements of the news story. The separation also includes the temporal sequencing of segments together (newsreader introduction, visuals, reporter comments) and the arrangement of the audio and visual channels within segments (newsreader voice over a sequence of stills, reporter's comment over action visuals, or even, newsreader quotation over head and shoulders interview).

The formats evolved for television news coverage reveal not only technical separation of tasks in news gathering and editing, but also the implicit models of reportage that are used by all members of the gathering and editing staff that allows these divergent elements to be integrated. It is obvious that the degree of integration of the channels for stories that only utilize the newsreader in the presentation is minimal. This editorial process of audio and visual components will be more important when stories utilize the film camera for action visuals and interviews.

Summary

In this section, the processes of selection that take place within the newscasting organization have been examined in relationship to the production of television news. It was pointed out that the selection process consists both of 'which stories ought to be covered' and 'how that story is organized and presented'. The integration of 'content' and 'format' in the news story is seen to be related to a variety of organizational factors, including the operating environment of the organizations as well as the structure, professionalism and the technological basis of the organization. Ultimately, news 'selection' functions to reduce the 'relative uncertainty' within the organization and to bring stability and uniformity to the 'output', in keeping with the goals of the organization.

CHAPTER 4

MESSAGE ANALYSIS

Section 4.1:

Introduction and Issues in the Analysis of News Messages

The analysis of messages is central to the understanding of the overall communication process, and particularly important in the study of news broadcasting. In the first instance, the news messages are the output of highly centralized and formalized organizations working within the context of the institutions and cultural settings in which these messages are produced. As such, they reflect, and can be used to test, hypotheses about the workings of the cultural setting (Hall 1970), and about the organizations that produce them (Halloran 1970). In particular, as Galtung and Ruge (1970) have shown, an analysis of the message output can be utilized as a means of validating hypotheses about news values, production and selection procedures, or organizational goals in terms of the production of actual news programmes. On the other hand, the 'message system' is not only the result of these highly institutionalized processes of news production, but also composes the stimulus field from which audiences select and process information. The cultivation process for broadcast news cannot be directly inferred solely from the analysis of messages, for account has to be taken of the variables that mediate the processing of that information. These include the demographic factors and use-preferences for media, motivations for viewing (Nowak 1972), and gratifications (McQuail 1972), as well as the previous attitudes (Halloran 1970) and other credibility factors related to news viewing. Thus, those dimensions of news broadcasting messages that are related to the selection and processing of news information by audiences must also be examined (Frank 1973). It is in this manner, as Nowak (1972) argues, that the components of information processing such as concept formation, selective perception, memory and retention, and attitude change will be related to the relevant 'message dimensions' and 'contents' of real messages that compose the actual stimulus field. It is through the study of such message processing factors that the controlled laboratory analysis can proceed, without the loss of ecological validity, in relationship to 'real world' news messages.

The objective study of messages is only possible if the meaning is clearly embodied in a signal. Although the nature of the signal will vary with the means of transmission (medium), it will always entail a physical correlate. However, the study of messages is not identical with the examination of the physical attributes of messages alone. Although Information Theorists and Engineers have been successful in the study of the efficiency of information carriers in terms of their ability to transmit signals independent of the content of messages, (Garner 1962, Attneave 1959, Cherry 1957, Miller 1967), a study of message systems must entail the examination of the 'meaningful' aspects of messages as well-codified in systems of signs or symbols that act as referents to these meanings.

Transmitted in the form of a signal determined by the nature of the broadcast technology, television news is presented to the human sensorium in two distinct modalities. Hence, essential to the structure of the television news, as for all television messages, is the simultaneous transmission of information embedded in a signal that is processed in two separate modalities. This does not imply that the meaning units are necessarily processed separately, for basic positions that distinguish possibilities for the structure of meaning units can be delineated.

- 1) the meaning units are essentially those of the audio channel (ie. verbal-linguistic)
- 2) the meaning of units are essentially those of the visual channel (ie. visual-imagistic).
- 3) the meaning units are processed as some combination of both channels (ie. cue summation, meta-code units, selection)

Lemert (1974) has pointed out that the study of television news messages has remained under-researched, and Holsti (1969) conjectures that unlike the study of newspaper or radio contents, the difficulty in this bimodal medium of establishing meaning units is crucial. Further he points out that the study of contents of news programmes, or of any meaningful message, can be broken down in terms of three aspects of 'meaning' - pragmatics, semantics and syntactics.

The first of these, pragmatics, is the study of relationships between the sender and the sign, or the sign and the receiver. It has been argued earlier, that due to the nature of television production, it is useful to clearly separate 'encoding pragmatics'

and 'decoding pragmatics'. Given the centralized and one-way flow of news information, these processes are clearly separate (certainly more so than in linguistics in which generative grammars are distinguished from interpretive grammars (Palmer(1973)). Thus, encoding pragmatics in the case of television news coverage would typically examine the meaning of contents in terms of the organizations or cultural settings which composite the 'sender' of the message. Notable examples of this type of research would be Halloran's study of demonstration news, in which he relates the contents of the coverage to the news gathering process, and Galtung and Ruge's(1970) study of news that relates the contents to the cultural setting of news broadcasting. These studies would be distinct from studies of contents that relate the meaning of contents to the receiver. Such research of decoding pragmatics may range from studies of the news diffusion process to studies relating media use variables to media contents (Frank 1973).

Secondly, the semantics of news broadcasting would in Holsti's terms entail the study of the relationship between the sign and its referent. In fact, two types of methodology have been established for this kind of investigation. The first method attempts to compare the news coverage of a given event (sign) with an independent and objective observation of it(referent) (Lang and Lang 1968, Halloran et al 1970). The second methodology entails uncovering the 'bias' of the news coverage by comparing across media, organizations, countries etc., to an inferred and implicit 'referent' that is construed from discrepancies in biased coverages. Studies of this type have been carried out by Lemert(1974) and Russo(1971).

The third type of study of meaning in news messages, and possibly the most complex, is what Holsti labels syntactics — the study of the relationship between signs. Studies of this type have used various terms such as 'grammar' (Frank 1974), 'form' (Williams 1974), formula (Newcomb 1974) structure (Barthes 1967, Burgelin 1972) code (Lohisse 1973), and language (Carpenter 1966) in describing the structure or organization of the relationships between signs. Although the theoretical implications of the use of one or other of these terms is not denied, it will be convenient to use the word 'code' to entail the relationship between signs independent of the nature of the meaning unit or its level of abstraction or modality for processing that meaning unit. Schwartz (1972) has pointed out, with regard to television's audio-visual

contents, that it is most difficult to identify the 'meaning units' with which to work in the analysis of the medium, because unlike well established 'lexical' based content studies of the printed news media (see Berelson 1966, Klapper and Glock 1954), the meaning units have not received consensual agreement nor are they clearly defined. For example Halloran has used 'persons' and 'locations' as basic sets of visual content, whereas Frank has used 'tightshots' and 'story treatment'. However, at this exploratory phase in the understanding of the codes of television news it is unlikely that the content categories that are most suitable will emerge until a broader understanding of 'grammar' of the related images has been defined.

In content-analyzing television news, Pride and Wamsley (1972) have considered whether there is any impact of the video component on the coders. They compared content analyses taken from 'watched news' to that derived solely from transcripts, and found that there was no difference for either method of coding.

Two explanations of their null result were posed:

- a) visual components have little effect on the audience therefore, transcripts provide adequate data for analysis
- b) standard coding procedures are not applicable to visuals

Although they conclude with an acceptance of the first explanation, their study reveals several typical problems in dealing with the audio-visual coding problem. Firstly, the study has no control condition that measures the impact of the visuals alone on the content analysis, hence there is no way of assessing whether the coders are not selectively perceiving, for the purposes of the scoring task, the audiotrack with its linguistic-descriptive information. Secondly, the measures used for this study, adopted directly from traditional content analysis, are heavily biased towards the measurement of the linguistic component. For example, the three categories of the Force dimension are US, North Vietnam, South Vietnam, whereas in most Vietnam visuals it is not always apparent from the visuals which side is engaged in which activities. It might have been more useful, for example, to distinguish military from civilian activities, an aspect that is clearly denoted visually by the presence or absence of uniforms. For the identification of the units they chose, the information was most likely to be delivered through the sound track and less likely in the visuals. It is also probable that the other, rather limited, measure used in this study (direction, strength) would not

be as sensitive to the actual information transmitted in the visual channel. Furthermore, since approximately only 30% of the newscast is 'action visuals' and almost 70% of the broadcast visuals are of the people in the news-newsreaders, reporters and interviewees-a good deal of the visual information that is actually present in the visual channel has been completely ignored. No measure has been taken or codified that includes the effect of this 'body language' component of the news coverage, such as a measure of credibility of the person shown. Moreover, by limiting their research to the investigation of symbol analysis of the Vietnam War to determine 'bias' in coverage, Pride and Wamsley have not examined the broader issue related to the message analysis of newscasts. This issue poses the question "what is the actual information transmitted in the audio and visual channels in news broadcast contents?" For this reason it is probably more accurate to accept their second explanation pertaining to the inadequate coding of visual information.

This discussion illuminates one of the most difficult features of the audio-visual content analysis problem, that is, the difference in the levels of abstraction of the information transmitted in the audio and visual modalities. Theories that overlook this distinction run into immediate problems. For example, McLuhan's (1964) argument rests on the assumption that the visual modality is habituated to transmitting written information entailing thought processes that would be of an equivalent level of abstraction as oral spoken transmission. However, most of television's visuals are not of the written word, but rather of image sequences that would be processed by what Arnheim(1969) terms 'perceptual cognitions'-processes used to decipher the world as rendered by the camera. There has been a degree of consensus with regard to the importance of the difference in levels of abstraction between the world presented via the rendered image, and the same world presented via linguistic symbols (Gessner 1968, Eisenstein 1957, Schwartz 1973, Spottiswoode 1965). As Stephenson and Debray(1969) argue, filmic presentation, unlike the spoken word, "does not use abstract terms, but by presenting images expresses itself immediately in identifiable terms".

Wendal Johnson(1960) was early to recognize the inherent importance of this distinction of general semantics for communication theory. He pointed out that "the principles of general semantics are the principles of abstracting" and discussed two specific errors that

are common in communication. The first he called identification, defined as the use of a category to identify an experience. In general the misuse of identification occurred with the failure to differentiate higher order from lower order abstractions. This can be seen to be particularly relevant for TV news, in which information about the real world is simultaneously presented on two levels of abstraction in different modalities. The second problem Johnson discusses is projection, or the failure to recognize the to-me-ness of any cognition because the "personal subjective qualities are projected into event itself". It may be conjectured that the degree of projection may well be related to the level of abstraction of the information, and a true semantic disturbance created by the confusion of a higher level abstraction (news audio track) imbued with the greater degree of to-me-ness stimulated by the immediacy of the visual presentation. This general issue has been discussed by several researchers. Berger (1972) has made this point when he argues that words become the framework for the interpretation of pictures. Arnheim (1969) explains that naming "indicates to some extent the level of abstractness at which an object is perceived". In more specific terms with regard to television news Frank (1973) states that the "vividness and seeming completeness of television news may blind the audience to existing word selection processes and thus act as powerful factors in the effective communication of the message". The simultaneous presentation of multiple levels of abstraction in the television medium has been one of the greatest difficulties in the analysis of its messages. Watt and Krull (1974) point out that studies of audio-visual communication generally fail to discriminate among the types of symbols employed by these media. They define the level of abstraction of a sign as the distance a concept is from its primitive term, or the number of logical connections that must be made for them to be derived. A primitive term is the least abstract concept and has the property of being self defining. Watt and Krull also distinguish between iconic and digital (lexical) symbols or sign types -iconic signs composing the form as opposed to the digital content of television.¹ Form(sic) and content, they argue, must be considered simultaneously before an unequivocal judgement about that communication can be made. As they continue "Iconic symbols, because they retain features of the referent object and do not require intermediate association processes, are less abstract than digital symbols".

Just as levels of abstraction may be distinguished within lexical communication (Bateson 1973) so have several levels of abstraction been

described for iconic signs. Gibson (1970) for example, from a developmental perspective, has argued that at least two stages must be considered in the perception of graphic symbols: 1) the discrimination of graphic units as discreet items and 2) the mastery of the unequivocal specificity of relationships of the code. Moore (1970), deriving her taxonomy of perception from previous physiological based research, uses the following distinctives:

- i sensation and detection of stimulus energy
- ii figure perception
- iii symbol perception
- iv perception of meaning
- v perceptive performance

Arnheim (1969), who believes that perception is the fundamental basis of cognition, distinguishes three functions for images based on their relationship to levels of abstractness—pictures, symbols and signs. Images as pictures portray things of a lower level of abstractness, and, as signs, images stand for a thing without representing its properties visually. Although these distinctions are helpful, they are clearly related to the static imagery of art and graphics, in which most of the relationship between meaning units are spatial.

However, Berger (1972) points out "in a film the way one image follows another, their succession, constructs an argument which becomes irreversible". It is necessary to understand not only the 'images' of television news,² but also the organization of the 'image sequences' and presentation style. These may operate at a different level of abstraction within newscasts. The following diagram illustrates a breakdown of meaning units at the various levels of abstraction for the newscast:

1. The Shorter Oxford Dictionary gives 15 meanings of the word 'form' helping to illustrate the confusion that centres around this word. The word as used by Watt and Krull has the sense of the definition as 1) "the visible aspect of a thing", 2) "an image likeness or representation of a body", 3) "a body considered in respect to its outward shape" and is commonly confused with definitions, 8) "a model type or pattern", 9) style of expressing the thoughts and ideas in composition, including the arrangement and order of the parts", 11) "a formal procedure". The word format will be used instead of form to refer to these latter meanings.
2. These images as presented in stills would consist of the persons, events and places photographed, as well as charts, graphic symbols and designs that frequently occur in back-projection. Also, they would consist of the newsreader in relationship to his studio background, the reporter on location and other images that can be analyzed as static image units ie. images of disaster, war, foreign countries, etc.

NEWS PROGRAMMES
Sequence of stories

Story

- sequence of segments, combined audio and visual units

Visual Segments

- an organized sequence of images

Images

Commentary

- an organized sequence of words as either description, inference or explanation, etc.

Words

- persons, graphics, maps, photographs. -adjectival emphasis, statistics, frequency of noun labels

Given these meaning units the presentational and stylistic aspects of the newscast may be more easily delineated. Halloran et al (1970) have described the meaning of a story's sequential organization as the inference logic. Burgelin (1972) has stressed the need for semiological analysis to go beyond the synchronic to diachronic structures, which entails the study of the changing relationships between signs over time, within any message. Hall (1970) has argued for the analysis that includes the presentational and stylistic aspects of newspaper contents, based on layout and emphasis. Frank (1973) has shown that it is possible to use quantificational methods to deal with these aspects of content in his search for the 'grammar of TV news stories'. This search must go beyond the 'substantive' content of the news message (either in sound or image) to the presentational format (form) of that message as well, for as Watt and Krull (1974) suggest "the structural or form characteristics of the programme may also have an effect on the audience". In terms of encoding pragmatics, the format of television news broadcast will be closely related to the 'procedural models' utilized in assembling and editing television news stories, analogous to the way that editorial selection and 'newsvalues' are related to the 'substantive' content of news. Hence format, in its most general sense, can be defined as the structured relationships of organized meaning units, either visual or linguistic and at those various levels of abstraction. This research will specifically attempt to carry out a message analysis that reflect both elements of the style and format of the news.

Section 4.2:

The Methodologies of Message Analysis

Essentially there have been two established methodologies used in the analysis of messages. The first based on scientific principles was developed by Berelson(1966) called Content Analysis. The second, originating from Saussure's structural linguistics and developed by the anthropological structuralism of Levi-Strauss and the literary and linguistic analysis of Barthes(1967), was applied to the media by Burgelin(1972) & Wollen(1969) as semiology. Berelson thought of content analysis as the objective and quantificational classification of sign vehicles by explicitly formulated rules. He went on to clearly state the limits of this method,

"content analysis is ordinarily limited to the manifest content of the communication and is not ordinarily done directly in terms of the latent intentions that the content may express".

In fact, he limited the application of content analysis to the study of syntactic and semantic problems, focusing only on the question of the content of the message itself. More recently Holsti(1969), on overviewing more than fifteen years of content analytic research, has commented on the growing breadth of application for this methodology. He points out that the method has changed in response to the demands for its application to the newer media which come under content analytic surveillance-particularly the audio-visual media of television and film. Whereas Berelson(1966), concerned with the printed media, used the measure of frequency of occurrence of symbols, television studies have demonstrated the value of stressing the duration and placement of the symbols (Lemert 1974). Holsti pointed out that in its most general sense content analysis is merely 'the consistent application of a set of rules to a content', and as such may be used for a wide variety of hypotheses about the communication processes.

A number of criticisms of content analysis have been made. Burgelin(1972) has contrasted content analysis with semiological analysis. He criticizes exactly that feature of content analysis that allows endless and random creation of categories, and emphasizes instead the need for establishing control over the generation of categories through imposing a hierarchy of categories by classifying messages on their own level of significance. Inherent in this semiological approach to the analysis of the media is the distinction between message and code,

which he points out is like the distinction in structural linguistics between speech and language. Essential as well to the semiological method is the principle of 'immanence', in which the construction of the 'code' is dependent on the 'interior relations of the system' that are uncovered by the analysis of the structure of messages. It is in this way that the priorities for the units of significance are meant to be established. The implication he draws for the analysis of the mass media is that the vocabulary of this code will consist of units larger than words. As he argues, "the first purpose of the analyst must be a description of the immanent world of significance in the corpus that he studies". Hall(1970) from a similar theoretical perspective, further criticizes content analysis as not only ignoring the elements of form and style, but for oversimplifying the content into basic units in an attempt for overly rigid objectification. Barthes(1967) and Wollen(1969) both emphasize the ability of the semiological approach to examine units of significance other than words, to distinguish and examine content as both substance and form, and to apply to visual as well as linguistic information-all of which are necessary in the analysis of audio-visual media. In addition, Barthes(1967) has recognized the overlapping nature of signifieds, which in the case of film and television may lead to an understanding of the relationship between modalities and levels of significance, or abstraction. He predicts that the extension of semiological research will probably lead to the study of serial, and not only oppositional paradigmatic relationships -which he sees as more relevant to these media contents.

These criticisms levelled by the semiologist against more traditional definitions of content analysis are valid. None, however, criticizes the objective or quantificational aspects of the analysis except in terms of the limitations it imposes on the outcome of the research. In many cases, one may argue, it is the poverty of the theoretical constructs that underlie the research and not the methodology itself that is the central problem. The precedence given by Berelson to the 'what is', rather than the 'why is' may not be a real limitation of the method of content analysis, particularly when hypotheses and categories are defined in terms of 'pragmatic' enquiries. Furthermore, it seems that the domain of semiology is precisely that area in which content analysis is weakest, that is, the area defined by Holsti as syntactics-the relationships amongst signs. There is no apparent reason

why both of these methodologies cannot be used in tandem, with an attempt to create a dialogue between them. The semiological analysis will be important in early phases of research to help clarify levels of significance, meaning units and emphasis for further quantificational determination. Moreover, after the broad strokes of the code or the genre are established in the syntactical sense, then semantic and pragmatic hypotheses will be easier to define. In addition, semiological analysis might be further utilized to deal with the latent meanings of the messages, for further interpretation. Ultimately, this type of combined message analysis would provide studies that encompassed the following features:

- a) could work with visual as well as linguistic data
- b) could recognize the various levels of abstraction on which the message is organized
- c) could quantify elements of form, format and style
- d) could examine latent as well as manifest content
- e) could quantify subjective insights for testing and retain qualitative as well as quantitative aspects

In fact, first steps in this direction have been taken in terms of television news by Frank(1973) and Halloran et al(1970). Frank in his search for the dimensions of television news, has used what he terms both 'hard' and 'soft' content analytic techniques. The hard approach, he states, should be oriented to the quantification of specific content, whereas the 'soft' approach can be used to gain an overview of the 'gestalt' of the news story, segment or programme. He has quantified his soft approach by use of the semantic differential for judgement discrimination. To some degree, therefore, his results reflect the 'form' as well as the 'substance' of news programmes and his coding protocol includes such aspects of news coverage as story graphics, story placement, and tightshot coverage, which are rarely coded in other studies of television news coverage. Furthermore, by studying aspects of 'content' and 'form' separately, he has been better able to determine their interplay in television newscasts. This kind of analysis was able to distinguish between "story favourability" and "presentation favourability" with regard to different election candidates, showing greater differences in presentational factors. In addition, he found differences in terms of visual story treatment dimensions, and the amount of voice over quotation for different networks, even though there was a high degree of convergence in terms of content. Frank's study has

certainly shown the way towards the use of both hard and soft methodologies and the inclusion of both visual and stylistic elements as basic units in content analysis of TV news. However, he left for further work the establishment of the elements of the television news code that is related to the format—the structuring of the relationship between signs into a rhetoric, inference structure, or form of discourse that is indigenous to television news. It will be a major interest of this study to utilize both content and structuralist methodologies to further examine the news message in an attempt to derive an understanding of the part played by the format of television news. Since studies of the lexical elements of television news contents have been performed, and continue to be a staple of many researchers, this research aims to emphasize the non-lexical aspects of newsbroadcasting. Although the original intention of this research was to build a syntax of television news-broadcasting in order to relate it to both pragmatic and semantic aspects of the communication process, practical problems have forced a de-emphasis on the semantic issues³. Rather the emphasis is on the development of the code of television news programmes in order to relate this code to the processes by which news stories are encoded in several cultural and organizational settings, and their implications for the decoding of these messages.

3. The study of the semantics of news-broadcasting would have compared the world views depicted by the various networks given coverage of the same events during the same time period.

Section 4.3:

The Structure of Television News

The following section will contain a discussion of the nature of news programming in general, in an attempt to create a clearer understanding of the 'meaning units' and the 'structural features' of the news. It is based both upon the occasional insights and impressions of other researchers, as well as upon the intensive news viewing in three countries by the writer. This kind of investigation is being presented because it is felt to be an essential feature of a methodology that attempts to deal with soft and hard aspects of television news content. An investigation of this nature helped to establish the basic units, categories, priorities and emphasis of the quantitative studies that follow. Although this type of work serves the purposes of a conceptual 'pilot study' for empirical researchers, it is presented here to show the origins and development of the category taxonomy utilized in the 'content' and 'format' analysis.

The Programme

It becomes readily apparent in news viewing that there are three essential levels of organization of meaning⁴ within the news programme, namely the programme, the story, and the segment. The first level to examine is that of the whole news programme. It stands out from the rest of television fare as a unique type of content, and yet fits well into the daily pattern of TV viewing. From introduction to recap, the daily news recurs with an insistent regularity at the same time spot while other programmes are marched throughout the schedule. It presents us with a daily scanning of the world's major events. As McLuhan(1964) was to point out, this seeming instantaneous contact with all parts of the world was symptomatic of the general nature of the impact of the developed television technology-the 'global village'. The news seems to have access to events in a wide variety of places throughout the globe at the instant that things are happening, and brings this together in a series of episodic stories that spans the days occurrences. Schwartz(1973) was to think of this as a mosaic of events, whereas Carpenter(1966) preferred to call it a 'gregorian knot'.

4. These levels of organization could probably be traced to the levels of the hierarchical organization of the broadcasting network itself, for example, executive/storyeditor/newsgatherer.

Possibly the knot is a better image because at the centre of these seemingly unrelated events, coordinating and establishing unity in the programme, is what Williams(1974) essentially thought of as the moderator of the show-the newsreader. This recurring central character (or characters) emerges as a serious, wise, trustworthy, dedicated figure, well in control of the news programme. He is somewhat dry in his humour, with irony being its sole expression, and emotionless-almost inured to the unending sequence of tragedies, excitements and important doings that he describes or introduces. That he is the 'star' of the show is not left in doubt.

Lesser characters appear also, usually a group of roving and studio reporters-dedicated men who seem to be able to make events happen wherever they go, who know and are friendly with everyone, and who have access to a large body of facts and data from which they draw their conclusions. The roving reporter's main claim seems to be his ability to be at the right place at the right time, whereas the studio reporter seems more able to get his hands on 'inside' information. The farther they venture from the familiar territory of the studio, the more involved in the events that they are reporting they become-but never to the point that they are identified as a participant. There is always a proper degree of journalistic separation from the event or person they are reporting or relating to. Newcomb(1974) has argued, that in fact the roving reporter is like the well known fictional character of the detective, faithfully investigating any undue disturbance in the natural course of the world. Reporters, whether in studio or on location, seem more prone to interpreting the events they cover than the newsreader; they seem to want to explain the event so that it may be understood by all, and yet are wary of expressing unsubstantiated personal opinions.

This image of the reporter is certainly in contrast to the stream of minor parts and characters that are played by the 'people in the news', consisting of politicians, government officials, union leaders and experts in various fields-all of whom are articulate, and very opinionated. Others consist of people who participate in the actual events of the day, still opinionated, however less articulate and frequently overcome with the weight of the emotion entailed by the event itself. Through these characters emerges a clear opposition that permeates the news report, a dichotomy between the realms of opinion and that of objectivity or reportage. Such is the 'dramatis personae'

for the television news, and it should be noted that most of them appear usually only from the shoulders up. Particularly, the news reader is known only through his floating head, and our attention is focused on the subtle and minute details of facial gesticulation that he so carefully controls. Reporters and others, to various degrees appear alone or together, or even in crowds, with varying degrees of 'tightshot coverage'.

The essence of the news content itself is clearly that of hard news-presented as extremely important and unbiased. The reports are clear and concise. All events seem to have simple explanations and straightforward implications. When the outcome is as yet undetermined, predictions about the most likely outcomes are willingly offered. However, like the weatherman's report, evaluations of those predictions after the fact are never made. This can be easily overlooked in fact because the sense of the report is that the viewer is never really expected to act on the information he is being given. It is only to keep him in the know.

The actual presentation of the sequence of news stories seems to differ slightly between Britain and the USA. Williams(1974) and Schwartz(1973) have both argued that the form the American Network news uses as its model for sequencing is that of the newspaper, consisting of headlines and summaries, with a clear distinction made between news categories -foreign, local crime, sport etc., presented in sectional subgroups. In comparison, the British Networks seem to rely on less explicit relationships between news stories to provide links, presumably inherited from the 'radio past'. In his study of American news, Frank(1973) has stressed the importance of the linkages between different news stories, and sees a direct effect of this contextual factor on the story itself. Generally, however, the news consists of unrelated items, which are presented as discreet and separate entities, with general tendency to the equating, or levelling in importance, of items which are treated with the same formats, or of the same duration. A cue as to the greater salience of a particular event other than its length and treatment, is the importance attributed its presence in the headline and recap. All news programmes seem to consist of 3-4 important stories and a group of lesser events. These key stories are delivered with a greater sense

of importance, and imbued with a larger degree of drama. In spite of such differences in emphasis, as Groombridge(1972) points out, every story is presented as both of general interest, and of relevance to all viewers. An interesting interplay is sustained throughout the news programme between information and excitement, and a clear sense of the whole programme being 'paced' is generated. As Newcomb argues, "the ritual opening establishes the theme of the entire programme: excitement governed by order". Underlying the news, there exists this unusual combination and interplay of 'mosaic' and 'sequence'. The mosaic is established over space in time, by the juxtaposition of a wide variety of locations, settings, persons, and types of events. The mosaic is also established within the image of the studio, through items distributed back and forth between different announcers, through the use of back projection and superimposition, and by the careful choice of report and interview locations to create a figure/ground image. In addition, however, as Williams(1974) has indicated, the news must always have a sense of sequence, in that stories are presented over time. Sequence is established through an overall form of intro/headlines/stories sometimes with linkage/recap and then on to the weather, establishing a clear cut beginning and ending to the programme. Ultimately, it is the newsreader who coordinates this interplay between mosaic and sequence and this establishes his central role in the recurring formula of news programmes.

Finally, and possibly most importantly, is the element of access and immediacy generated in the news programme. Direct access can be established by taking the point of view of the camera. Access to the words and knowledge of experts, television's people in the know, to sources of all kinds, who would normally remain faceless, is created by the combination of the reporter and the camera and the microphone. These elements of access were stressed by Barthes(1967) who pointed to the lessening sense of mediation between the viewer and the event, and the increased sense of immediacy as a crucial element in television news as a new form of historical discourse. This sense of 'access' is different from the 'voyeurism' and 'peering into other peoples' lives that composes most of the rest of TV programming. In those fictional programmes, changes of scene flow together through the vehicle of plot or story, or character development. By way of contrast the coordinated mosaic is a crucial distinction in establishing the news

form as 'real world' oriented, rather than 'fictional', and makes it easily identifiable as such. For this reason, the machinery and process of news gathering can in fact become a content within the programme as well. The microphone, for example, hidden behind ties or just off camera in other types of programme, becomes a symbol of access in the news programme. Distortion of voices in telephoned reports from far off places, which would make the sound of 'below broadcast quality' for any other programme, are important in establishing the distance in the news report, as are the stills of far off places where the camera crew have not yet arrived. In fact, the news room itself, with the workers busily preparing the reports of the day (are they really working at that time of night?) can provide a backdrop for the newsreader. The news gathering process, unlike the filming in the simulated worlds of studio fiction, does not have to simulate reality, because it is reality. For this reason, the viewer can be exposed to the persons and techniques that are responsible for 'bringing you the news', and in fact they become an important element in establishing the distinction between news as 'reality' and the rest of television as 'fiction'.

A brief description of the introduction sequences of the two British networks, help to illustrate and clarify these points. On the BBC news, the visuals move from the 9 o'clock 'countdown' to the image of the earth viewed from outer space -The World at 9. From the background of news-ticker-tape theme music, the image changes to the fish-eye lens view of the news process, which is graphically seen to emerge from and overlap the globe, then to the view of the two newsreaders at their desk in the studio, and finally to the full face introduction of the headlines by the lead newsreader. The themes for this programme are clearly illustrated in this condensed form - the up-to-the-minute global perspective on the news, brought to you through a large and active news service, and reliably presented by your steadfast announcers. Contrasted to this is ITN's more dramatic presentation. It commences with dramatic visuals from the main stories of the day, edited to the chimes of Big Ben, and in the sound track a pulsating music and the terse description by the newsreader. Once again the same up-to-the-minuteness is conveyed, but more emphasis is placed on the drama of the event itself, shown directly by the

visuals and the sense of access that is more important than the newsreaders' rendering. It seems that the 'theme of the newscast' is clearly presented in the opening sequences of the programme.

In terms of the actual linear sequencing of the programme, pacing can be seen to be a major factor. However, comparison between public and private networks are made quite difficult because with the interposing of advertising the pacing of the programme must change. Several of the comparisons of American news sequences for example, found correlations for order in story sequence amongst stories and yet all of these programmes also have commercial interruptions. In a way the commercial interruptions help to establish the element of pacing, for although most newscasts start with the big story of the day, for the commercial networks an important story must also be kept for after the break. The interspersing of shorter reports with the longer more complex stories as a respite is a common pacing trait, as is the use of a summary before the commercial break which includes what is to come after the ads. For these reasons the order of the stories in the programme cannot provide more than a cursory indicator of the emphasis on the item, and this is further confused by the fact that the pacing of the story will depend on the nature of the visuals used as well as the newsworthiness of the story itself.

The Segment

It is in contrast to the larger units of the programme that the smallest unit of the segment will be dealt with-as the elemental unit of the news programme. The segment is distinguished by its visual characteristics, and although smaller units have been discussed such as the shot, (Gessner 1968, Wollen 1969) or the image (Eisenstein 1957), and certainly the word, or phrase, these units are characteristic of the audio-visual media themselves and not unique to the newscast. For this reason the segment is seen as the smallest unit of meaning unique to the broadcast of news. The segment is defined by its format, the organization of image sequences and comment, rather than its content, and more specifically can be characterized by the following types:

- 1) Newsreader Segment
- 2) Reporter Segment
- 3) Interview Segment
- 4) Visual, Stills, Graphics Segment

The audio and visual components of sequences can be distinguished and analyzed separately.

The Newsreader segment always occurs in the studio, and may or may not have the addition of back projection of images. Several techniques for back projection exist, and some include back projection of photo-cine sequences. The comment of the newsreader is terse and descriptive, rarely giving more than the outline of the story, or acting as an introduction to other segments. Occasionally the newsreaders' voice will be used as 'sound over' for visual sequences, but since a segment is determined by its visual characteristics this would be defined as a visuals segment.

The Reporter segment can be further distinguished as of two types; reporter in the field, and studio reporter. In either case the reporter usually will be delivering his report directly to the camera. Reporters may be identified as having specialist functions within the news organization, such as industrial correspondents, science editor, or our-correspondent-in, which gives him special jurisdiction over a subject matter that he is reporting. The BBC in particular indicates these subtle gradations in the journalism hierarchy. When he appears in the studio, the reporter may have the benefit of back projection as well, although less frequently than the newsreader. On location the reporter is frequently to be seen in front of an identifiable landmark that indicates a relationship to the occurrence he is reporting on (ie. parliament, Scotland Yard Office, the Court House). The studio reports tend to be longer and more complex with an emphasis on detail and background information leading to either prediction or explanation of events. They are more interpretative than the newsreaders, and frequently more speculative. In the field, the reporter can either be covering an event or setting up an interview. It is not uncommon to see a reporter sequence before a major story is presented, outlining the issues, or drawing conclusions in the field at the end of the story. In either case, explanation and investigation seems to be the staple of the reporter.

An Interview segment is most frequently associated with reporters, and generally shows a person other than a staff member of the network in the discussion of some issue. Frequently the sense of this discussion being mediated through the reporter is present. The interviewee is looking askance, rather than at the camera, as he returns his answers to the interviewers' question off camera. At times the reporter appears in cutaways, or frequently the reporter and interviewee appear together in the conversation. In some instances, events created specially for news coverage, the interviewee is seen to address the camera directly without the mediation of the newsmen. In almost all instances the microphone is present in the visuals of the interview, with various degrees of reporter mediation also being present. The locations for these interviews and the set-up are carefully chosen, although limited mainly to two types; the staged interview (lawns and studies of the interviewee) and the 'on the street interview'.

In the soundtrack of the interview sequence is almost always the sync-sound interviewee's voice, although in Canada a habit of editing the reporter's commentary with quotation over the visuals of the interview is not uncommon.

The final category, the Visuals segment, is distinguished by the full screen action sequences, animation, graphics or still photographs. The still of a person's face is quite common when the commentary includes quotes from or discussion of these persons, as are graphics and maps where suitable for the story. In the USA an interesting use of a sequence of sketches is also noticed in particular for court cases. However on the whole the most important part of the news is the visual sequence rendered by film or video camera and edited into a sequence ranging from one shot to a narrative series of shots. It is this aspect of television news that is most akin to the rest of television viewing. A wide variety of occurrences can be rendered by the action visuals type of story; however, Groombridge(1972) has pointed out there is also a logic to the not-seen, the places the camera cannot successfully record, or the types of activities that cannot be filmed. One can also distinguish between two aspects of a sequence, that is the organization or format of the segment and its orientation or emphasis. Whereas the orientation of the segment is determined by the subject matter or content, the format is determined by the nature of the structure of the visual shots themselves. A typical

editorial format for the visual sequence is one in which the rendering of a location through several points of view, establishes a sense of being at and seeing the 'place' of an occurrence. This has been termed the You Are There (YAT) segment. This may include 'establishing shots', close ups or a variety of camera angles on the same locus. They may establish the setting or examine the effects of an event (bomb, fire). They seem to try to convey the sense of having seen for oneself the situation or circumstances surrounding the event or its impact. A second editing format is what can be termed Chronological segment, in which the ordering of the shots visually duplicate the order of aspects of an occurrence as they happened (first A then B then C) although they may condense or omit aspects of the event. A third kind of report, the Inference, may be edited to make a point, or to show a relation between occurrences. The edited sequence will have an inferential structure (ie. agency, attribution of intent, causality (ie. if A then B association), dependent usually on some of the film editing conventions of cinema (Wollen 1969). These formats are based on the visuals judged alone, although similar formats may be discerned for the sound track as well. Usually the voice in the commentary is the reporter or newsreader, and the fit of the soundtrack and the visuals may vary greatly. In a case where the redundancy of the two channels is high, the newsreader is usually describing what is being viewed in the visuals with both the format and the emphasis being the same. However, many stories have lesser degrees of overlap of either the format of the segment, or its orientation. For example, a chronological sequence of visuals could be presented with inferences by the reporter in the voice over speculating on why the event occurred at all, or explaining its causality. The confusion of course is that while the event is being 'seen as it happened' the explanation of it or its importance may be much more interpretive. Moreover, a chronological story could be used to present a story about a person (first he did this, then this.....) or equally, an event orientation (first this happened and then.....). For this reason the format of the visuals and the sound track, as well as the 'orientation' of these segment channels can be clearly separated and distinguished. It may also be noted that the use of actuality sound can enhance the sense of the event itself. In fact Schwartz (1973) has argued that there is a 'grammar' to the sound track as well, usually based on the reconstruction of the event in the studio with pre-recorded sound (ie. footsteps plus

shots and chants for marchers). It is the above factors which constitute some of the basic features of the segment.

The News Story

The second level of 'significance' of the news programme occurs at the story level which is composed of one or more news segments. This level is most clearly distinguished by its content rather than its format, and consists of the treatment of a discrete topic or issue. Although the variety of issues covered is considerable, the story only has a limited number of segment types which can be used to compose a story, and some contents are less amenable to treatment by some kinds of segment type than others. A story format consists of the combined elements in the audio and visual channels. The following kinds of story formats have been distinguished in television news.

Balanced Views:

Although many luminaries of the networks claim that the proof of unbiased coverage in their reporting is attested to by the fact that both sides complain, these comments more accurately reflect a particular type of news story that is used to deal with many kinds of controversial issues, by framing the story in terms of opposing stances taken on the subject (Groombridge 1972, Halloran et al 1970). As Hartmann & Husband (1972) point out, this imbues the story with tension and conflict between the sides, enhancing the drama of the event. Besides immediately framing the issues in terms of opposing sides (union vs industry, Arab vs Israeli), these conflicts are most likely to be between dominant and majority group interests. In addition there is a necessity to have an articulate spokesman for either side, and this leads to an increasing dependence on the 'officials and representatives' of those organizations or groups. In fact, this tendency of representing movements or social forces by leaders of official groups seems to perpetuate a leader centred view of social change. Sometimes camera shots of the leader in relationship to the crowd are used to emphasize his backing or heckling, but the Balance story needs a spokesman because it essentially sets up an opposition between two opinions or points of view. The two segment formats used to deal with this aspect of story are therefore the interview, or the quote-over-stills. The effect of this kind of story is to personalize the issues, and reduce them to conflicts of personalities. Ultimately, the reporter or news analyst is left to interpret the conflict, and it is he who is the only one who gives the impression of having a full grasp of the issues. He is free to ask penetrating questions in the interview of both sides and to organize his commentary in such a way that his command of the issue

is greater than either side-each of whom comes across as extremely opinion bound. The reporter's comment is meant to transcend the opposition of viewpoints, and is seemingly unopinionated. The interpretative framework he offers attempts to inform you of the real significance of the event or issue (ie. it is unresolvable, there will be bloodshed, things are getting worse). A schematic of this kind of story structure would be;

Newsreader Introduction/Reporter in Studio/Interview with one side/(optional reporter comment)/Interview with other side/Reporter Wrap-up

Differing styles for this type of story might entail a greater emphasis on pre-interpretation, in which the reporter informs you beforehand of what the conflict is about, or on the wrap-up in which the reporter concludes with a capsule summary interpretation. This type of story never involves misquôtes in the areas of controversial subject matters, because each side is seen to be speaking for himself. However, editorial emphasis can be shifted by sound editing, and examples where pauses and uhms are edited may entirely change the contextual speech elements and the meaning they convey. The overall sense of this kind of story is that one has heard for oneself both sides of the story and can draw conclusions as one chooses.

Neutral/Fact:

With objectivity as an ideal of news reporting, a story whose basic structural element is the presentation of factual, statistical or hard news-data raw and undigested-is not a surprising feature. Essentially these types of stories are of two types. The Report is a story in which the 'bare bones' of a story is given briefly in terms of hard descriptive prose, usually by a newsreader. This story rarely includes more than a quick statement of the outline, and interpretive structures are not posed by the commentary. Sometimes back projection is used to fill out the story, frequently of a map or symbol. The schema of such a story would be:

(Newsreader/(reporter))

A second type of Neutral/Fact Story attempts to include raw data or statistics as well. These stories would use visuals that provide written or graphic/numerical forms of the data, frequently

charts or graphs, or sometimes the superimposition of these on other visuals. Such stories are usually brief and tersely presented with occasional interpretive frameworks offered after the presentation of the data. The schema would be:

(Newsreader/Visuals (data)/(Reporter Interpretation))

Occasionally an interview with an expert in the field may be included in this kind of story.

It should be noted that these stories rarely contain a 'proscriptive aspect', but maintain only a normative emphasis describing statistical majorities, and extrapolations from them. For example, likely inflation rates for the next year might be predicted, but never what 'you' could do about it. The assumption it seems behind these statistical stories, is that human behaviour will not change as a result of the information, nor should news influence behaviour. Therefore, both the prediction via extrapolation, or the need to give alternative coping behaviours, is not part of the story.

The Event Itself:

This type of story has several subvarieties, but the main emphasis of the story is the direct access of the viewer to the event, either through the direct visual access of the camera, or by the mediated access of the reporter/interview. In their general schemata these stories have the following sequence:

Newsreader/Visuals/Reporter/Interview/(Reporter)

Newsreader/Interview/(Reporter)

The impression these stories generate is the sense of somehow having gone directly to the locale and seen or heard for oneself about the event. In the Visuals stories, the semblance of having experienced the event for yourself is clearly implied, whereas for the Interview stories, the access to a first hand source helps to recreate the event.

The You Are There Story, (YAT) is a subset of this kind of story in which the impression of having been at the location of the event and seen it directly, or having been on location, is created in both the visuals of the 'locus' and frequently in description by witnesses and participants in the event. On the other hand when the focus of the item is an interview, frequently visuals of an official arriving at an airport will precede his speech or interview, or

occasionally a camera is allowed in the room of an important meeting itself. It is also noted that the 'roving reporter' is dominant in this type of story, and even when a camera crew has not been able to arrive on location in time, the reporter's voice will be heard over a photograph of the place from which he is calling. The distortion of the voice on the telephone line is an important audial cue to the sense of access inherent in this report.

A second subset of the Event story is the Chronological Format. This type of story recreates the event in terms of chrononological structure—its basic organizational unit is the time frame of the event. For example the departure and arrival of important persons, tours, recreation of a day's events, or even a crime, are some of the subject matters in which the 'chronological story' is frequently used. The general sense of this story is that a much longer story has been condensed down to the few crucial highlight moments (similar to the recap of a football game in which the scoring plays are shown in order) depicting the span of the story. This kind of story centres around its action visuals, although the commentary for the story may be highly interpretative of the event.

The Inference story is a third type, and one of the most interesting. The Inference Format centres on the interpretation or explanation of some phenomena and, as such, tends to emphasize the part played by the studio reporter in helping to understand the salience of the subject matter. Frequently the reporter is identified as being a 'specialist' or an expert in his field. At other times the interview is with the expert. Occasionally visual sequences are used to explain an event or phenomena, with animation or demonstrations included. However, the key to the organization of the Inference story is a discussion or an interpretive framework that analyzes the event/issue. Predominant amongst these are: attribution of agency or intent, causality, undue association, responsibility for, predictive extrapolations, similarity, contrast, justice-is-done and various other psychological connections.

Although the above factors comprise the essential repertoire of newscast format types, several minor story types have been derived from the others. One of these, the 'Opinion Poll', attempts to give a wide sampling of opinion on an issue, instead of a balanced view.

For example, a story, in which an instance of person or event is developed as a typical case study of the type mentioned (ie. a typical shopper, a typical backbencher) makes an unusual type of inference story. These then, along with the hierarchical story used mainly in the press (Carpenter 1966), are the general story formats for news reporting on TV. The Format types seem to be basic to both levels of significance—the story and the segment.

Section 4.4:
Development of the Hypotheses

It has been argued that one of the crucial factors in the development of television news has been the highly centralised organizations that produce the news and the related institutional arrangements that regulate and influence broadcasting in Britain, Canada and the USA. Indeed, it has been suggested that a number of factors combine to constitute the cultural setting in which the news broadcasting takes place. For example, legislation, budgeting procedures, organizational frameworks, and the development of the technology and its uses, have coincided with audience attitudes, use patterns and expectations generated in the cultural historical settings that have come to shape the broadcasting of news in Britain, Canada and the USA. Singer(1971) has performed one of the few comparative studies available on the network coverage of the Vietnam War for a Canadian and American network. He argues that "television news may be a more sensitive barometer of the central values of a culture than the printed media, because television time is scarce" and further mentions that the test between these countries is made particularly valid by the fact that the Canadian network utilizes the same American wire services as the American's, and hence the availability of broadcast materials is not at issue, but rather network policy. His research focuses on the problem of 'violence' in the news, and his content analysis breaks the news stories down into 'aggression items'. His results show that the American network is more similar to other American networks in terms of its broadcast of aggression items, than to the CBC's coverage. The Canadian station placed less emphasis on violence and protest type items, even controlling for different coverages of the Vietnam War.

In particular it is the institutional setting differences, in terms of the nature of the broadcast organizations, that differ over countries. Singer's data comparing a private American network and a public Canadian one is difficult to interpret however. Comparisons over countries must account for both the differences between privately and publicly controlled broadcast network organizations, and the varying degrees of control over broadcasting by legislative and enforcement aspects of government, as well as varying degrees of dependency on commercial sources of income. Again, although there is little complete research on cross cultural comparisons with regard to the news, Williams's (1974) data for broadcasting in general did tend to indicate differences

in overall programming between Britain and America, with a heightening of the discrepancy between private and public organizations being characteristic of the American situation.

Certainly, crucial to all three countries is the competition by these few organizations for audiences. In the case of Britain and Canada this is between a major private and public broadcast organization. In Britain, an alternative public channel exists (BBC2) whereas in Canada smaller private networks (Global) and cabled American programming distinguish the settings. In the USA the competition mainly exists between three private broadcast networks, with a less important educational public network also functioning. In either case the dominance of the market forces seems to have led to a mass audience principle, dominating in broadcasting with a high degree of uniformity and similarity being typical of both entertainment and information programming. The degree to which the differing organizational objectives actually result in different kinds of news programming has been questioned in Britain by De'ath(1975), and with regard to diversity of political views for broadcast news in the USA by Spiro Agnew(1969). The general assessment in many cases is that in all three countries, differences between broadcast organizations are less noticeable than similarities. Any differences in actual broadcast output should be traceable to differences in policy interpretations made at the executive levels of these organizations, and hence to the differing objectives of the organizations themselves. For example, the degree to which a public organization interprets its role to be that of competing for audiences, as opposed to providing alternative programme content in the mixed broadcast situation, should be related to the nature of the broadcast output of the organizations.

This question has been taken up by researchers, with regard to competition between the three private broadcast networks in the US, for news broadcasting. Fowler and Showalter(1974) make the distinction between having a 'healthy similarity' and an 'unhealthy conformity' in network newscasting'. Their study of news judgement stressed the similarity in news values applied in the three national networks for story selection. In a content analysis using both story and segment breakdown units, they found that 41% of all stories were shown on all three networks, with about 60% of stories shown by at least two networks.

They conclude that a significant agreement amongst network news editors with regards to story selection must exist. Lemert (1974), in overviewing content duplication studies in both the press and television, criticizes many of these studies on methodological grounds. His study attempts to evaluate duplication over the three networks within a concentrated period of time, and it is even more convincing than Fowler and Showalter's study. Although he found less duplication on weekend newscasts, he finds however for the weekday broadcasts duplication on at least two networks for about 70% of stories, with 58% of stories duplicated on all networks. He concludes that "the most routine cut-and-dried stories were the ones which were covered by everybody, and there weren't many other kinds of stories on the network news".

These indicative results lead to the formulation of two general hypothesis with regard to news broadcasting:

- 1) The development of television news in different cultural and institutional settings should result in news broadcasting which differs between Britain, Canada and the USA.
- 2) Within these countries the factors that have led to competitive relationships between broadcast network organizations will minimize the differences between these organizations' newscasting in any given cultural setting.

Continued Development of the Hypotheses:

Foremost in the development of TV news as a distinct type of journalism has been the growing use of the camera, entailing the visual presentation of aspects of the news, and this has had a considerable impact on the broadcasting of television news.

Visualization of the news exerts an influence on both the content and the format of the news story. Access of the cameras to locales, places and events can increase the 'newsworthiness' of a story. In addition, organizational and professional factors when combined with the competitive stance of the media organizations, lead to a high degree of consensual validation of what are the most important news items, both amongst the television organizations specifically and news media generally, which leads to the mutual coverage of events by all media. Highlighting this, Halloran et al (1970) have discussed this interplay between all news media organizations in establishing the 'expectational sets' with regards to the nature of forthcoming events and their relative importance. Further, Epstein (1974) has related this to the limited broadcast time for TV news and the economic logic leading to concentration of news broadcasts on a few key stories that reflect the front page of the major newspapers. McCombs and Shaw(1972) have discussed the outcome of this consensual validation in terms of the 'agenda setting' role of the media, in which interpretive frameworks for the understanding of events are generated. The similarity of television news coverage was shown by Russo(1971) in his comparative content analysis of American network news, where he found a remarkable degree of similarity in terms of the 'bias' of the coverage of the Vietnam War. Such research implies that similarity of the news organizations' outputs may go beyond simply the selection of the same stories to the nature of the treatment of those stories. For example, Fowler and Showalter(1974) found significant correlational relationships for treatment of news stories on different networks in terms of the story length and the placement within the broadcast. This data reinforced their notion that the "newsworthiness of an item did not vary much between organizations". Moreover Lemert's(1974) data concur with this point relating the same trends of length of broadcast and placement criteria, pointing out that the emphasis on different contents is similar between broadcast organizations. We can hypothesize then that:

H3: differences in the emphasis of contents will vary over countries but not between organizations within the same country. If there are differences they are more likely to be in the more peripheral subject areas, rather than in the central stories. The news broadcast is likely to consist of a small number of stories with several key stories.

On the other hand, the visual presentation and format factors for television news are unique to the television medium. Increasingly sophisticated visual presentations can be used to make the news into a programme, that fits into the flow of other programming on the media. It is through the presentational format that the network can establish a unique style for its news programming to gain in audience appeal. For example, the personality of the newsreader has been mentioned as one important feature in competitive presentational aspects of the news broadcast, as would be the particular uses of the camera, studio, reporters and story formats. The general direction of the shift in format stylistics should be towards formats that make news broadcasting more like the 'entertainment' programming that is the main media fare.

H4: In countries where legislative and control factors interfere less with broadcasting, the visual aspects of news presentation will tend toward the entertainment and dramatic type of formats.

It has been further noticed that a high degree of 'procedural' uniformity is necessitated by the technology of news gathering and editing, leading to distinct but unwritten models for newsmen concerning the gathering and processing of news. These unwritten procedural rules result in highly structured news formats for news stories, and regularize the news gathering process.

H5: Clear and recognizable news story types should be evident for story formats, if not a code or grammar for news broadcasting.

Although 'impartiality and fairness' are meant to be hallmark attributes for all of television journalism, policy interpretations when required may vary over countries or organizations. Subject areas or issues may be more or less sensitive in different cultures (ie. free trade, unionism and federalism) and may be dealt with by story formats that are less oriented to impartiality. It has been argued that three possible interpretations of format impartiality can be made—balance, objectivity, neutrality. Hence it may be expected that:

H6. Countries may vary in the subject matters that are treated with impartial story formats, as may organizations vary in their preferential use of interpretations of 'impartiality'.

Particularly revealing in terms of this cultural sensitivity should be the difference between the coverage of domestic news stories in contrast with those reporting international events unrelated to the news stories, and those reporting international events unrelated to the native country directly (ie. the Vietnam War would be regarded as a related international event from the USA). In the light of this principle, different countries may be more culturally sensitive to different kinds of subject matters, and the relationship between content types and formats for news stories may be expected to vary in different countries.

It is hoped that the examination of empirical aspects of news format use will help to clarify the nature of the codes used for television news programming. Regarding this, a particular determinant of this code is the audio-visual nature of the television technology. Both technological and organizational factors lead to the conclusion that the separation of functions in the news gathering and editing process leads to a lack of redundancy, or even inconsistency, in the news message. This lack of redundancy between audio and visual channels of information transmission will be important in the understanding of the nature of the information processing entailed in news viewing. Furthermore, whether intermodal redundancy is high will be important in determining whether a dual channel processing or an intermodal 'meta-code' is necessary.

Section 4.5:

Methodology and Research Design for Content Analysis

The following study was carried out to investigate the preceding hypotheses. Following Holsti's (1969) criteria for a content analysis procedure, a consistent set of rules was applied. Attempts were made to include both quantitative and qualitative data, and to perform what Frank calls 'soft content analysis as well as hard'. This study also attempts to develop a method of content analysis which can deal with linguistic and non-linguistic information, particularly the use of camera techniques. Going beyond the usual content analysis method, an attempt is made to describe the 'form' of television news stories. The study utilized the usual measurement for television news contents, (see Lemert, Fowler and Showalter) and included an analysis of both the 'story' and 'segment'. Measures of content taken were:

- 1) the frequency of occurrence of a content category
- 2) the length of time of the content category.

Additionally, the 'proportion of total broadcast time' was considered as a third indicator. Whilst not lending itself as a measure to usual statistical analysis it was taken into consideration because by subsuming both the above types of measure it proves more easily interpretable.⁵

Ten evening weekday newscasts were sampled for each network studied, concentrating on the major news report of the evening in Britain, Canada and the USA. Excluded were local news (after the national), sports sections, and the weather. The following chart provides the basic information on the newscast covered:

Network	BBC1	ITV Thames	CBC	CTV	NBC
Country	Britain	Britain	Canada	Canada	USA
Organization	Public	Private	Public	Private	Private
Title	The World at 9	ITN News	The National	CTV News Report	
Time of Broadcast(pm)	9pm	10pm	11pm	11pm	7pm

5. For example, in comparing the presence of a short and infrequent, with a short and frequent content type.

Although the original intention was to sample 10 consecutive days simultaneously for all networks, problems with the video equipment led to two different types of sampling. The British sample consisted of ten consecutive weekday newscasts sampled between July 9 and July 24 1975, whereas, the Canadian and American samples, recorded in Toronto, included three newscasts for each network between the July 9 to July 24 period, and the remainder consisted of a random sample of newscasts recorded between August 10 and September 20 1975⁶. This unfortunate turn of events leads to certain problems in the data, particularly since the Soyuz Apollo link flight, which was an unusual, but major news story, took place during the period of the British study which also covered during the same period a National budget.

The above factors certainly put some restrictions on the interpretation of story subject matter between countries. Although a sample of ten newscasts may be slightly lower than usual, as Stemple (1952) has shown, a sample of 12 newspapers was sufficient to obtain a representative sample for a year. In this present study the limited scope of the television newscast, and the highly formalized presentation, as well as other logistical reasons, necessitated the sacrifice of the sample of more broadcasts for the inclusion of the three countries.

All newscasts were recorded on 1/2" videotape, directly on broadcast by off-air recording procedures⁷. The coding procedure minimally entailed two separate stop action replays of the tape, and all segments were coded separately. The first run through was carried out for the coding of the 'Visuals', and the tape was played without sound. The second run was for the audio codes and was made with both sound and vision. The tape could be stopped and replayed for any segment as many times as was necessary for coding all the information. Finally a third run was taken to assess the overall aspects of the story, rather than the segments.

- 6 Once the ability to sample from the same slice of current events was lost due to the malfunction of a video recorder, it was decided, for the rest of the sample, to reduce the amount of story overlap by allowing at least three days between any two network newscasts.
- 7 This procedure is illegal under broadcast copyright laws without the permission of the network

Two coders were used, with the author coding the British part of the sample and several of the North American newscasts. The coding assistant was a graduate student at the Faculty of Environmental Studies, York University, studying communications. In a pretest phase, both coders practised on several newscasts until familiarity with the coding instruments was established. Interjudge reliability measures, as well as test-retest measures were taken, for each coding section. Although reliability measured varied over sections, the lowest achieved relationship was .65 for interjudge reliability and .71 for test-retest. Several of the sections were easily coded and near perfect reliability scores were achieved. The average intercoder reliability for all sections was .75, and for within coder reliability, .81. The most interpretive of sections were the following:

- audio organization
- audio orientation
- visual orientation

All coding was done on prepared coding forms, with the coding key (see Appendix).

As Berelson(1966) first stated and as Holsti(1969) and others have clarified with the growing research in content analysis, any content analysis stands or falls by the categories employed. The categories must reflect the purposes of the research, be exhaustive and mutually exclusive and derived from simple classification principles. On the other hand, research such as the present one seeks to develop the 'underlying code of news broadcasting' which necessitates a more clear and simple classification hypothesis. Furthermore, there are no clearly established principles for the categorization of non-lexical materials(Frank 1973, Holsti 1969). In the present work most of the classification system was formulated in the pretest pilot study, in which personal experience in media production was tested against actual news coverage until a comprehensive typology was developed. Some of the category types are well established in the practice and teaching of journalism (ie. hierarchical story) and are part of the conventional wisdom of the profession. Others were derived from the watching of news in the pilot phase (ie. opinion poll). The following was the classification scheme used in this study with regards to news broadcasting: in all cases, a forced choice for any judgement entailed that the coder indicated the category that it was felt best represented the observation, as in many cases the categories were not

mutually exclusive.

Story Analysis

Classification of the Subject Matter of Stories:

1) Labour and Industrial	including strikes, labour disputes, shut downs, takeovers, meeting, deals
2) Political	pertaining to acts of governments, or of relevance to persons identified as politicians, ie. conventions, speeches declarations, parliament, law etc.
3) Economic	pertaining to reports of the economic functions of some system, inflation, costs, Dow Jones, stock market, Budget
4) Military	including wars, military parades or exhibits, war policy, guerilla actions involving at least one official organized force such as bomb defusing of the IRA
5) Social	including education, health, family, recreation, and environmental issues ie. squatters, new developments.
6) Domestic Issues	included natural, accidental or man caused disasters or accidents ie. fires, earthquakes.
7) Humour and Personality	included oddity items on unusual personalities or events that were colourful or state occasions - a Royal fall from a horse, Chaplin's 85th birthday.
8) Technology	reports on new technological or scientific developments ie. space, medicine or science, machinery.
9) Crime	reports on criminal offences, actions and court proceedings.

In many cases the above categories closely resemble the desk organization of news rooms, and frequently reporters or editors are used to present a story and they are identified as 'our political correspondent' 'our science editor'. In these cases the category presented by the news organization itself was used.

Classification of Format

For the organization of story formats the following classifications were used:

- 1) Balance A story in which two sides of an issue were presented together, including quotes, interviews or outline of issues (ie. in a strike a labour leader and then a representative of industry etc.)
- 2) Inference A story structure from which a single theory, explanation inference logic or interpretive framework is the organizing principle (ie. A and B cause C)
- 3) Chronological A story in which the actual sequence of events in time is maintained as the organization of the story (ie. a day in the life, the morning broke with....)
- 4) You Are There A story where the ability of the camera or the tape recorder (ie. telephone) is presented as bringing the viewer into a more direct observation of the event...the main organizing principle is being able to witness for yourself (right now as we join the cosmonauts it's supper time in Soyuz.)
- 5) Statistics and Facts A story in which the presentation of data statistics or documentation is the central element of the news story.
- 6) Report A story in which the report of a news reader, editor or reporter, either in the studio or on location is the major component of the story.
- 7) Pyramid A story in which the central and most dramatic point is presented first, with other aspects of the story following in their development.

Derivative story structures such as the 'opinion poll' were considered separately, but subsumed in the data under the general category to which they belong (ie. balance views). In the opinion poll, the impression of surveying a large body of typical opinion is used to show how people feel about an event, rather than two official views. Another story format that occurred infrequently is the 'For Example' or 'case study' type of news story in which a typical

instance is examined in depth as an example of a general issue. These stories were grouped in the Inference category generally and typically has the structure, "Peter is a squatter..."

Locale

Stories were categorized as being domestic or international:

Domestic stories

stories that take place within the national boundaries of the Broadcast, and stories which relate to the foreign policy of that nation.....
ie. a statement of British policy with regards to EEC made in Brussels, for Britain. Action of American soldiers in Vietnam for USA, but not all of Vietnam war news

International stories

are stories that clearly relate to actions of other countries, or are only peripherally related to actions of the Broadcast nation.

Segment Analysis:

Segments were considered as subsections of stories that were distinguished by a change in the visual presentation. Five types of segment format were distinguished:

- 1) Newsreader
- 2) Reporter
- 3) Interview
- 4) Visuals
- 5) Stills

Newsreader Sequences:

Newsreader sequences consist of a report being read by an anchorman in the studio. The format for these sequences were distinguished by the presence of some form of visual or back project procedure, and the content of these superimposed visuals. Categories of back projects were:

- 1) None
- 2) Still
- 3) News process
- 4) Photo cine

The content of the back projection was distinguished in the following categories:

- 1) Person
- 2) Place
- 3) Event
- 4) Other - symbols and maps written in

Reporter Interview Segments:

These sequences first distinguished where the report was being presented from:

- 1) In the studio
- 2) On location

The sequences were further distinguished for the context of the presentation:

- 1) Live report from the event
- 2) Live report presented from a standard location
- 3) Live interview on location
- 4) Reporter from studio

These segments were further distinguished for the degree of presence of the reporter visually in the report:

- 1) Reporter is visually shown
- 2) Reporter off camera
- 3) Other direct to camera (ie. camera rather than interviewer is the addressee)

Finally, the Interview sequences were distinguished in terms of the subject of the interview:

- 1) Report only
- 2) Official or representative or delegate-legitimate authority
- 3) Participants, witness in an event or issue.
- 4) Expert opinion-person identified as having a specialist knowledge in a relevant area
- 5) Other-open ended with a write-in

With regard to this above distinction the identity of the interviewee was sometimes indicated visually, and labelled, or implied by the context of the interview. At other times this distinction was made on the second replay when the audio information was added, and therefore is not a pure Visuals category.

Action Visuals Sequences:

Action visuals were distinguished by full screen use of either filmed, videotaped, or animated sequences. These sequences were broken down in terms of their organization or format for a sequence. The visual segment formats used essentially the same categories as the Story Formats, but were judged purely in terms of the visuals viewed alone. The categories consisted of:

1) Chronological	a visual segment showing action taking place in a sequential time series that resembles the real event - no breakdown of temporality
2) Balance	a visual segment that presents two perspectives on an event
3) Neutral	a segment that visually presents charts, graphs or data in a direct way
4) Pyramid	a segment that presents the dramatic part first and then fills in background
5) Inference	a segment that is sequenced to present an inference, for example causality, intent, responsibility, agency
6) You Are There	a visual segment that shows the event directly or instills a sense of direct access through the camera coverage of location

A judgement of the orientation of the visuals segment was also made. This was certainly one of the 'softer' classifications and was used to indicate the emphasis of the visuals:

- 1) people oriented-human interest, people in emotional situations, faces
- 2) conflict - disaster or crisis oriented, visuals of damage or injury
- 3) action - visuals emphasize novelty, excitement, grandeur, humour, movement
- 4) situation - visuals survey location or background to event area and location shots, preparation, situation
- 5) explanation - visuals emphasize an explanation, reason or procedure for some action, ie. how to plant roses
- 6) immediacy - the visuals are of some action of event that is the news story

Stills Sequences:

Full screen stills were not used by all broadcast agencies. However, this category was examined and coded in terms of the content of the still:

- 1) Person
- 2) Event
- 3) Place
- 4) Symbol or map

In addition the stills were coded for any superimposition of another still on top:

- 1) None
- 2) Reporter photo
- 3) Statistics or written documentation

Audio Segments:

The audio segments were analysed and their times assigned in terms of the visual segment to which they corresponded. Separate judgements were made for the following attributes of these audio portions.

First the segments were coded for 'whose voice' was heard:

- 1) Newsreader
- 2) Reporter
- 3) Interviewee

And also for the nature of the sound track:

- 1) Commentary
- 2) Quote or paraphrase
- 3) Other speaking

In addition the audio portion was coded in terms of the format of the verbal track, which consisted of a similar format structure as that used for the visuals and story formats:

- 1) Chronological recap
- 2) Balanced views - ie. one interview and then another
- 3) Neutral fact - data or statistics presented
- 4) Pyramid of importance - aspects of the event
- 5) Inference - argument or interpretation is made
- 6) Description - situation or background, location, event, are described or opinions of another given.

The audio orientation closely resembles the visuals orientation with only one additional category:

- 1) People oriented - describe persons appearance or emotions, human interest
- 2) Conflict - accentuates difficulties, opposition, trouble, calamity
- 3) Action - speed or novelty, humour, irony
- 4) Situation - circumstance, background location described, setting
- 5) Explanation, analysis - a reasoned examination, in depth analysis, attempt to explain without bias
- 6) Opinion, allegation, claim - the presentation of clearly stated personal point of view
- 7) Event - actuality sound of the event itself - little commentary

These categories were applied by means of the coding key (see Appendix). The data were analyzed on IBM 3600 with an SPSS programme. The Cross Tabs subprogramme was used for the frequency stories, and the Anova and One Way programmes were used for the Analysis of Variance. The Classical model for the multiple-factor analysis of variance was utilized to obtain interaction effects. Since in the American situation only one level or organization existed, all analysis which included Organization as a factor, were performed on the British and Canadian data separately.

Section 4.6:

Results

Data and analysis from the content study are presented in Fig.4.1 to Fig. 4.38. Fig.4.1 summarizes the mean times for all news stories, average number per day and length of newscast. The British newscast is on the average the longest, with the Canadian the slightly shorter of the North American newscasts. The mean time for a British newscast is about 30 seconds longer, and is significantly different from the others at the .001 level. The American network has a larger number of shorter news stories, about four more per day than the British Networks. No significant differences emerge from comparisons of the Public and Private networks for either length of news stories or number of stories per day. In general, almost 70% of the news time is for the broadcast of Domestic news, with a Domestic story being significantly 9 seconds longer. Approximately 9 Domestic and 5 International stories make up the average newscast, with an obvious emphasis on the Domestic story.

Fig.4.2 shows this data broken down in a different way. It is interesting to note that in Britain the private networks' stories are approximately 10 seconds longer on average, whereas in Canada the Private network averages 6 seconds shorter than the Public. In the USA and Britain, Domestic news composes about three quarters of the newscast, whereas for Canada it is approximately 55% of the airtime. The high percentage of Canadian news that is foreign is in keeping with the observation that much of Canadian news is American in its content. Private networks tend to devote a slightly smaller percentage of their newscast to foreign news items, and the average story length for Domestic stories on public networks is longer.

Fig.4.3 breaks down the mean story times for different content categories. The mean times for content types are significantly different, as is the frequency of occurrence of different content categories. The longest content type stories were Technical, followed closely by Political stories. The Humour and Personality category had the shortest length. The frequency of Technical stories was not high, and the difference can be seen to be attributed by the extremely long Technical stories that were broadcast in Britain, which can be attributed to the occurrence of several Soyuz/Apollo stories during the

FIG # 4.1
GENERAL DATA FOR NEWS STORIES

-127-

MEAN STORY TIME (secs)	COUNTRY				ORGANIZATION		LOCALE	
	TOTAL	BRITAIN	CANADA	U.S.A.	PUBLIC	PRIVATE	DOMESTIC	INTERNATIONAL
86.2	105.5		74.7	74.9	88.6	84.6	89.2	80.2
# OF STORIES /BRDAY	13.9	12.9	13.5	16.8	13.5	14.1	9.16	4.7
LENGTH OF NEWSCAST (secs)	1196	1356	1004	1259	1196	1196	818	378

FIG# 4.2

BREAKDOWN OF NEWS STORY TIME BY LOCALE, COUNTRY AND ORGANIZATION

		DOMESTIC	INTERNATIONAL	PUBLIC	PRIVATE
BRITAIN	% TOT	77.1	22.9	47.5	52.5
	MEAN (sec)	108.8	97.2	100.7	110.3
CANADA	% TOT	55.8	44.2	54.8	45.2
	MEAN (sec)	74.6	74.7	77.6	71.4
U.S.A.	% TOT	75.8	24.2		100
	MEAN (sec)	77.6	67.6		74.9
PUBLIC	% TOT	64.2	35.8		
	MEAN (sec)	94.2	79.9		
PRIVATE	% TOT	71.1	28.9		
	MEAN (sec)	86.5	80.4		

FIG.4-3. MEAN STORY TIME
BROKEN DOWN FOR CONTENT BY COUNTRY, ORGANIZATION AND LOCALE

CONTENT	TOTAL	BRITAIN	CANADA	U.S.A.	ORGANIZATION		LOCALE	
					PUBLIC	PRIVATE	DOMESTIC	INTERNATIONAL
LAB	85.8	80.3	96.5	76.5	87.1	84.6	86.3	83.4
POL	105.4	135.1	58.5	103.8	105.8	105.2	153.6	57.9
ECON	72.7	87.3	73.0	72.9	78.6	70.3	75.3	46.4
MILIT	75.3	63.0	94.4	57.8	75.2	75.4	78.3	75.0
SOC	84.9	97.3	75.9	89.7	87.0	83.5	82.6	103.0
DOM	61.5	58.3	68.5	21.7	65.0	60.3	50.0	82.3
HUM	59.8	80.9	57.6	45.3	66.1	54.5	66.6	46.0
TECH	140.2	216.5	88.8	55.0	144.0	137.9	67.5	178.3
CRIM	81.1	93.3	77.4	72.6	83.3	79.6	74.7	101.8

sampling period that were of unusual length. Although there was no significant interaction of Content by Country, certain slight mean time differences can be noted. Canada has especially long Labour and Military Stories, and rather shorter Political ones. The USA broadcasts relatively short Domestic stories. Comparison by Organization shows little difference in story length, whereas the relationship between Locale and Content shows a significant interaction at the .001 level. Generally it seems Domestic stories of Labour, Political or Economic content are longer, whereas for Social Domestic, Technical and Crime News, shorter.

Fig.4.4 shows mean story time broken down by Country, Organization and Locale for Format types. The longest Format types were the Chronological and Balance Views, followed by Inference and YAT stories, with the Report naturally being the shortest. The interaction between the factors of Country and Format are significant at the .005 level, as is that between Format, Country and Locale; therefore the data needs careful interpretation. Different countries utilize different length Formats for Domestic and Foreign news, with the US network spending longer on their YAT story formats and the British spending longer on the Balanced Views and Chronological Format Types. The Canadian networks utilize extremely short Statistical Stories, whilst the chronological format is rarely used. Differences between Public and Private organizations exist on the Balanced Views Format. For Domestic stories, the Balanced, Inference and Chronological Stories are longer, whereas for International news the YAT and Statistical Reports are longer. It is further noted with regard to these charts that significant interaction occurs between Content and Format in terms of story lengths so that a Content type may vary in length depending on the Format chosen for the story.

Although story times and frequency provide adequate measures of the differences between factors, a more indicative measure is their combination as a single measure in terms of % Total broadcast time. Although this measure does not lend itself to significance testing, the highly consistent results of both the Chi Squares and F tests seem to indicate that for descriptive and interpretive uses this measure is in fact more valid.

Fig. 4.4

MEAN STORY TIME BROKEN DOWN FOR FORMAT BY COUNTRY,
ORGANIZATION AND LOCALE.

	TOTAL	COUNTRY			ORGANIZATION		LOCALE	
		BRITAIN	CANADA	U.S.A.	PUBLIC	PRIVATE	DOMESTIC	INTER/n
BAL	209	275.0	163.7	135.	225.	168	212	174
INF	140	196.8	111.8	140.9	136.	143	146	124
CHRON	218	220.0	-	195.0	219.	216	233	202
VAT	102	105.4	91.3	113.6	104.	101	95	113
STATS	67	73.2	12.0	56.0	59.	72	61	184
RPT	26	31.5	24.7	22.2	26.0	26	28	23

Fig.4.5 displays content categories expressed in percentage of total Broadcast time for Countries, Organizations, and Locale. The greatest emphasis is given to Political Stories, although the Canadian networks underplay this content type. It is also noted that Private organizations produce almost 13% more Political airtime than do Public organizations. Crime and Social news are much more highly stressed in the North American context, with Canada showing an inordinate amount of Military news. However, analysing the distribution between foreign and domestic news for Military stories, it is clear that the emphasis on Military news is on foreign events of this type, and the Canadian Military reports are likely to be of American Military involvements. It is likewise interesting to note that Domestic stories of Labour, Economic and Social contents, are predominant, whereas for International Stories and Military and Technical news outweigh the coverage for these contents on the Domestic scene.

Fig.4.6 shows similar data for Story Formats. The YAT and Inference Formats account for about 34% of the newscast each, although the trend is for the North American Networks to use the Inference Format, whereas the British emphasize the YAT. The Balanced Views is a Format type more heavily used by the British Networks, and particularly by Public Networks, and for Domestic news stories. The YAT Format receives more emphasis for International stories, and these interpretive frameworks of the Inference story format are more likely to be used for Domestic than for International News Events.

Figs.4.7, 4.8, 4.9 examine the relationship between Formats and Content types and show that the interaction between these and other factors is elaborate. Overall, the Balance Format is most common and used for dealing with Labour stories, while the Inference story structure is used on all but Domestic issues in the news it distributes most heavily on the Social and Economic content categories. For the Domestic issues category, the YAT Format was clearly the predominant one. The Statistics and Report Formats were most common for Economic news. Fig.4.9 further shows these relationships broken down for all networks. Some interesting trends can be evinced from these data. The ITN report is more likely to use a Balanced Views Format for Labour stories, whereas the BBC is more likely to use this format

Fig. 4.5.

PERCENTAGE OF TOTAL STORY TIME FOR CONTENTS
BROKEN DOWN BY COUNTRY, ORGANIZATION AND LOCALE

CONTENT	TOTAL	BRITAIN	CANADA	U.S.A.	ORGANIZATION		LOCALE	
					PUBLIC	PRIVATE	DOMESTIC	INTERNATIONAL
LAB	11.2	9.7	14.4	9.1	13.8	9.4	13.7	5.7
POL	28.0	37.3	13.4	31.3	26.1	39.3	29.7	24.5
ECON	10.5	11.6	8.7	11.3	8.2	12.1	14.6	1.9
MILIT	6.8	4.6	10.8	5.1	7.9	6.1	1.1	19.0
SOC	12.6	7.2	15.9	19.3	13.1	13.1	16.0	5.4
DOM	4.3	3.2	8.2	.5	2.9	5.2	3.3	6.5
HUM	5.1	3.3	8.0	4.3	6.4	4.2	5.5	4.1
TECH	7.5	12.0	3.9	3.4	7.2	7.6	1.8	19.7
CRIM	13.8	11.0	16.6	15.6	10.1	13.5	14.3	12.9

% TOTAL STORY TIME BROKEN DOWN BY FORMAT FOR
COUNTRY, ORGANIZATION AND LOCALE.

-134-

	TOTAL	COUNTRY			ORGANIZATION		LOCALE	
		BRITAIN	CANADA	U.S.A.	PUBLIC	PRIVATE	DOMESTIC	INTER/n.
BAL	10.4	13.2	9.9	5.3	14.9	7.5	14.0	2.8
INF	33.5	25.4	39.4	41.4	31.9	34.6	37.8	24.2
CHRON	2.2	4.1	-	1.5	1.8	2.4	1.7	3.2
VAT	35.8	41.2	31.3	31.6	35.3	36.3	29.3	50.0
STATS	2.7	4.5	.1	2.7	2.5	2.8	3.5	.9
RPT	11.9	9.1	13.9	14.6	11.3	12.2	11.5	12.7
PYM	1.0	2.0	-	-	-	1.5	1.7	-
OTHER	2.5	.4	5.1	2.8	2.2	2.7	.8	6.1

FIG# 4.7:

% OF TOTAL STORY TIME BROKEN DOWN FOR CONTENT BY FORMAT

C O N T E N T		FORMAT				
		BAL	INF	YAT	STAT	RPT
	LAB	31.2	35.9	20.1	4.3	8.8
	POL	15.4	37.4	26.8	.7	12.2
	ECON	7.6	45.3	10.6	18.4	18.1
	SOC	5.4	54.2	25.1	.4	9.4
	DOM	-	4.2	84.4	-	11.4
	CRIM	6.5	33.6	44.5	-	13.2

Fig. 4.8.

PERCENTAGE OF STORY TIME IN ORGANIZATIONS,
BROKEN DOWN FOR CONTENT BY FORMAT

PUBLIC

PRIVATE

	BAL	INF	VAT	STATS	RPT	BAL	INF	YAT	STATS	RPT
LAB	38.9	25.1	30.1	2.6	11.6	23.5	45.7	18.9	5.8	5.9
POL	26.0	28.9	25.9	-	13.2	9.1	43	27.4	2.3	11.5
ECON	4.9	47.3	4.1	24.2	19.5	8.8	44.3	13.5	15.8	17.4
SOC	4.0	69.3	15.6	.9	10.2	6.3	43.5	32.8	-	8.6
DOM	-	15.4	76.2	-	8.4	-	-	87.0	-	13.0
CRIM	8.8	31.3	50.0	-	10.3	4.9	35.2	40.9	-	15.3

	BAL	INF	YAT	STAT	RPT		BAL	INF	YAT	STAT	RPT
--	-----	-----	-----	------	-----	--	-----	-----	-----	------	-----

BRITAIN	LAB	50.	21.4	25.4	-	3.1	42.4	6.8	24.5	6.0	20.
	POL	12.0	48.8	20.0	2.3	9.8	30.4	26.8	24.5	-	9.3
	ECON	-	28.3	29.6	30.5	11.6	-	48.4	6.0	35.5	10.1
	SOC	-	25.	45.8	-	3.9	-	58.5	28.6	1.3	11.5
	DOM	-	-	100.	-	-	-	-	88.5	11.5	-
	CRIM	14.1	22.4	37.5	-	15.6	-	8.9	78.3	-	12.8
CANADA	LAB	17.1	61.2	16.0	-	5.7	36.4	39.7	18.5	-	5.4
	POL	-	44.7	35.3	-	20.6	10.0	31.3	31.0	-	27.7
	ECON	19	56.5	4.9	-	19.6	15.4	44.9	-	-	39.6
	SOC	10.6	58.5	22.4	-	8.2	6.4	75.7	7.9	1.0	9.4
	DOM	-	-	83.4	-	16.6	-	33.8	51.5	-	4.6
	CRIM	-	37.8	44.0	-	18.2	14.1	45.0	32.1	-	8.9
U.S.A.	LAB	-	59.2	64.4	1.2	9.1					
	POL	8.4	37.6	34.4	-	10.8					
	ECON	11.9	55.3	-	9.7	23.0					
	SOC	6.2	41.6	33.9	-	10.3					
	DOM	-	-	76.1	-	23.1					

Fig. 409.
PERCENT OF STORY-TIME FOR CONTENTS BROKEN DOWN BY
FORMAT FOR ORGANIZATIONS WITHIN COUNTRIES

for a Political story. BBC is also more likely to provide the Inference Formats for Economic and Social news contents, whereas the ITN broadcast tends to use this format type on Political news stories. The CBC is more likely to use the Balanced Views for Labour contents, and Inference stories for Social news. The American network uses Balanced Views Formats for Economic and, to a degree, Political stories, with the Inference Format and YAT to deal with Labour news. The Canadian and American networks very seldom use the Statistics Format, and CTV uses the Inference story more for Political contents. Summated data is provided in Fig.4.8 in which comparisons of Formats for Public and Private networks show that the Balanced Format type is used for Labour and Political stories more by the Public networks, whereas the Inference is used more for Social and Statistics for Economic news. Private networks use the Inference Format more for the Labour and Political stories, with the YAT being emphasized for Social and Domestic Issues types of news. Fig.4.10 and 4.11 show results of analysis of variance and chi square tests of significance for these factors.

Segments

Data relevant to segments are displayed in Fig.4.12 to Fig.4.38. In Fig.4.12, 4.13 are displayed breakdowns of segment categories expressed as percentages of broadcast time for Countries, Organization and Locale. Figs.4.14-4.17 show the tests of significance for mean times of all segment formats and for the frequencies of occurrence of segment categories. It should be noted from Fig.4.14 that in terms of mean length and frequency of Segment Formats, there is a significant interaction with both the story Content and Format. That is, the use of a Segment Format is dependent both upon the subject matter and the Presentation Format in which it is embedded. A newsreader segment, for example, may be longer or shorter, depending upon whether it is a Labour or Economic story, and whether the overall Format for the story is Balanced Views or Inference.

Fig.4.12 displays the percentage of broadcast time devoted to different Segment Formats. Overall the greatest amount of time just under 30% of the broadcast- was devoted to 'action visual' sequences, with the Newsreader segments being close behind. The mean

Fig # 4.10: ANALYSIS OF VARIANCE ON STORY TIMES

FACTOR	SIGNIFICANCE OF TEST
Country	.001
Organization	NS
Content	.005
Format	.001
Locale	.022

Two-Way Interactions that were significant

Format by Country	.005
Content by Locale	.001
Content by Format	.03

Three-Way Interactions that were significant

Format by Country by Locale	.001
-----------------------------	------

FIG# 4.11

Chi Square Tests of Significance for frequency of stories Occurance

Factor	Level of Significance
Content x Country	.0001
Content x Locale	.0001
Content x Organization	NS
Format x Country	.0001
Format x Organization	NS
Format x Locale	.0001

Content x Format Controlled for Country

Britain	.0001
Canada	.0004
USA	.0270

Fig # 4.12: Visual Segment Format Broken Down for Country, Organization and Locale

Segment Format	Total	Country	Organization	Locale				
	BRIT.	CAN.	Priv.	Pub.	Domes	Int		
NEWSREADER	27.8	22.8	28.8	37.4	30.3	24.1	26.8	30.1
REPORTER	15.7	22.4	18.6	12.4	18.8	19.3	22.4	11.4
INTERVIEW	22.1	15.4	22.9	23.4	17.7	20.3	22.8	10.2
VISUALS	28.9	24.7	34.4	28.9	28.2	30.0	22.3	43.1
STILLS	5.2	11.0	1.0	1.0	4.9	6.2	5.6	5.0

Fig # 4.13: Visual Segment Format Broken Down By Countries By Organization

Segment Format	Britain		Canada		USA
	Public	Private	Public	Private	Private
NEWSREADER	19.4	25.7	29.4	28.3	37.4
REPORTER	26.8	22.6	10.5	22.9	11.5
INTERVIEW	18.8	15.2	22.5	16.4	21.6
VISUALS	24.5	24.9	36.0	32.4	28.9
STILLS	10.4	11.5	1.6	-	.6

Fig #4.14: ANALYSIS OF VARIANCE ON SEGMENT TIMES

Factor	Level of Significance
	F-test
Country	.001
Organization	NS
Locale	.001
Segment Format	.001
Visuals Format	.006
Visuals Orientation	.005
AudWho	.001
AudWhat	.001
Audio Format	.001
AudOrientation	.001
Two-Way Interactions that were significant	
AudWhat by Country	.001
AudWho by Country	.001
AudOrnt by Country	.005
AudFormat by Country	.001
Segment Format by Country	.001
Segment Format by Locale	.003
Visuals Format by Organization	.03
Visuals Format by Domes	.01
Three-Way Interactions that were significant	
Segment Format by Country by Organization	.05
Segment Orientation by Country by Locale	.01
Segment Format by Format	.001
Segment Format by Content	.001

Fig # 4,15

Chi Square Test of Significance on Frequency of Segments

Factor	Level of Significance
--------	-----------------------

By Country

Segment Format x Country	.05
AudWho x Country	.006
AudWhat x Country	.0001
AudFormat x Country	.0001
AudOrientation x Country	.0001
Visuals Format x Country	.0005
Visuals Orientation x Country	.05

Segment Format x Content controlled for Country

Britain	.02
Canada	.05
USA	NS

Fig # 4.16

Chi Square test of Significance on Frequency of Segments

By Organization

Level of Significance

Segment Format x Organization	NS
AudWho x Organization	NS
AudWhat x Organization	.0001
AudFormat x Organization	.0001
AudOrientation x Organization	.0001
Visuals Format x Organization	NS
Visuals Orientation x Organization	NS

Visuals Orientation x Country controlled for Organization

Private	.002
Public	NS

Fig # 4,17

Chi Square tests of significance for frequency of Segments:

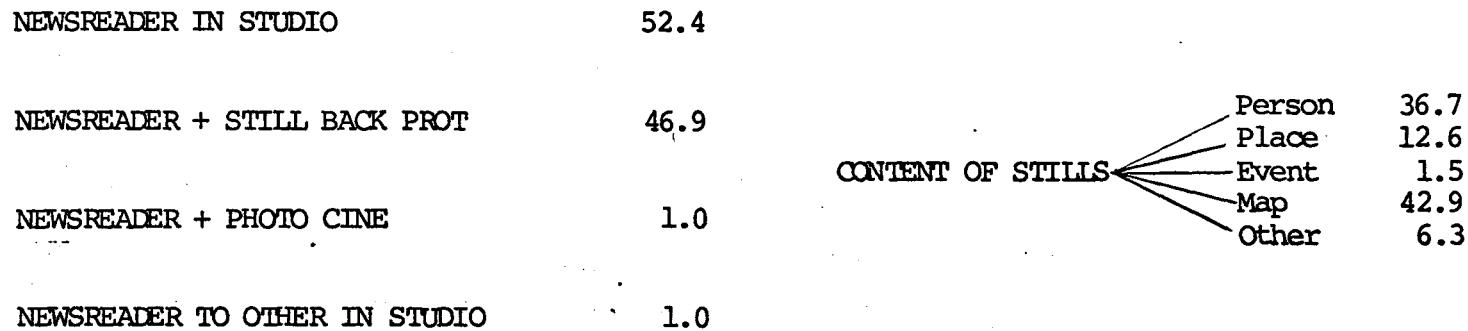
Factor	Level of Significance
By Locale	
Segment Format x Locale	.0001
AudWho x Locale	.0001
AudWhat x Locale	.0001
AudFormat x Locale	.0001
AudOrientation x Locale	.0001
Visuals Format by Locale	NS
Visuals Orientation x Locale	NS

times and frequencies of occurrence of these segment types are significantly different at the .001 level and .05 level respectively, although in interpreting this data, the significant interactions of Segment Format and Country, Segment Format and Locale, and the three way interaction of Segment Format by Country and Organization must be considered. For example, Britain devotes less of its time to action visuals than the North American networks, but is the dominant user of full screen still photographs which compose 11% of the visuals of broadcast time. The United States uses the Newsreader to a much greater extent than does Canada or Britain, and tends to use the newsreporter less than do the other networks. The US network as well, has comparatively the largest amount of time devoted to interviews, whereas Britain has the smallest. With regards to International stories, action visuals tend to be used on these stories more frequently, as do newsreader segments, whereas fewer interview or reporter segments occur in International coverage.

Fig.4.13 shows the comparison for all networks separately in order to further examine the interaction of National and Organizational factors. In Britain, the BBC utilizes the newsreader less, and the reporter more in its coverage than does the ITN, whereas in Canada the CBC utilizes the newsreader and action visuals more as well as a slightly higher percentage of Interview time, than does the CTV. This pattern is more like the American private network in terms of Segment Format, whereas the CTV network is more akin to the British stations. In fact in order to understand these Segment Format types more clearly the data are broken down for each individually.

Newsreader Segments

Figs.4.18, 4.19, and 4.20 display the percentage of broadcast time for newsreader sequences. The newsreader appears overall about 53% of the time without any back projection, however Canada tends to use the back projection facility more in its newsreader sequences, as do Private organizations in general. International news, when it is presented by newsreaders, is more likely to have back projection



Fig# 4.18

NEWS READER SEGMENTS

FIG# 4.19

BREAKDOWN BY PERCENTAGE OF TOTAL TIME FOR NEWSREADER SEGMENTS FOR COUNTRY, ORGANIZATION AND LOCALE

-148-

CONTENT OF BACK PROJECTION

PRESSENCE OF BACK PROJECTION

	TOTAL	COUNTRY			ORGANIZATION		LOCALE	
		BRIT	CAN	USA	PRIV	PUB	DOMS	INT
Newsreader in Studio	53.0	59.6	39.7	57.9	48.2	59.5	64.4	37.6
Newsreader & Back Projection	47.0	40.4	60.3	42.1	51.7	40.4	35.6	62.4
Person	36.7	59.4	21.6	49.3	44.9	27.6	51.3	26.8
Place	12.6	5.3	19.1	15.6	8.8	25.6	10.8	17.1
Event	1.5	.3	1.9	.9	1.2	2.9	2.6	.9
Maps & Other	42.9	33.2	57.3	34.3	45.1	44.0	35.3	55.2

FIG # 4.2Q NEWSREADER SEGMENTS BROKEN DOWN FOR NETWORKS

COUNTRY

	BRITAIN	CANADA	U.S.A.
PUBLIC	NR	97.4	49.5
	NR + Person	-	5.2
	NR + Event	-	3.7
	NR + Place	-	-
	NR + Map	2.6	41.5
PRIVATE	NR	35.6	68.2
	NR + Person	39.2	15.7
	NR + Event	3.5	4.9
	NR + Place	.8	.1
	NR + Map/ Symbol	20.3	10.9

than Domestic news. A comparison of the photographic images used in the back projection shows a tendency to emphasize either persons or locations in the news stories, with maps receiving the highest priority. Photographs of persons in the news were given greater emphasis in Britain and the least emphasis in Canada. Domestic news was more likely to have photos of persons projected behind the newsreader, and International news either maps or photographs of a place. In fact, other than this general tendency, the use of photographic stills seems fairly idiosyncratic for different networks as evidenced in Fig.4.20.

Reporter and Interview Segments

Since these Segments most frequently occur in relation, they will be considered together. Figs.4.21 and 4.22 display, for the combined Reporter and Interview Segments, data broken down in various ways and Fig.4.23 shows, in the form of a decision tree, the choices inherent in the process of constructing these segments as news stories. It is evident from the data that the British networks report from the studio more frequently than do the North American Networks, and in particular the BBC emphasizes the studio report whereas the CBC tends to emphasize on location reporting. Only 17% of International reports of the Reporter/Interview variety are done on location, whereas 72% of Domestic reports are done in this way. All British reports are filmed in the studio of professional news personnel (editors and correspondents) whereas in Canada and the USA an occasional non-journalist commentator will report directly from the studio, although this is only about 4% of the total airtime of the combined Interview and Reporter segments. Of the Reporter Segments on the British Networks that occur from location, there is an emphasis on the 'live from the event' coverage, and this is particularly characteristic of ITN. The North American reporters tend to deliver their reports from a 'known or identifiable place' as background. The reporter appears alone most frequently on the CTV network, and this is generally more typical of the Canadian news coverage, and International stories as well.

In terms of the anonymity of the news reporter in the Interview sequences, it is more characteristic of the North American networks to keep the reporter off camera to a greater degree than for the British networks, and this is most true of the CBC. As well the Canadian networks

FIG# 4.21

BREAKDOWN FOR REPORTER SEQUENCES BY COUNTRY, ORGANIZATION AND LOCALE

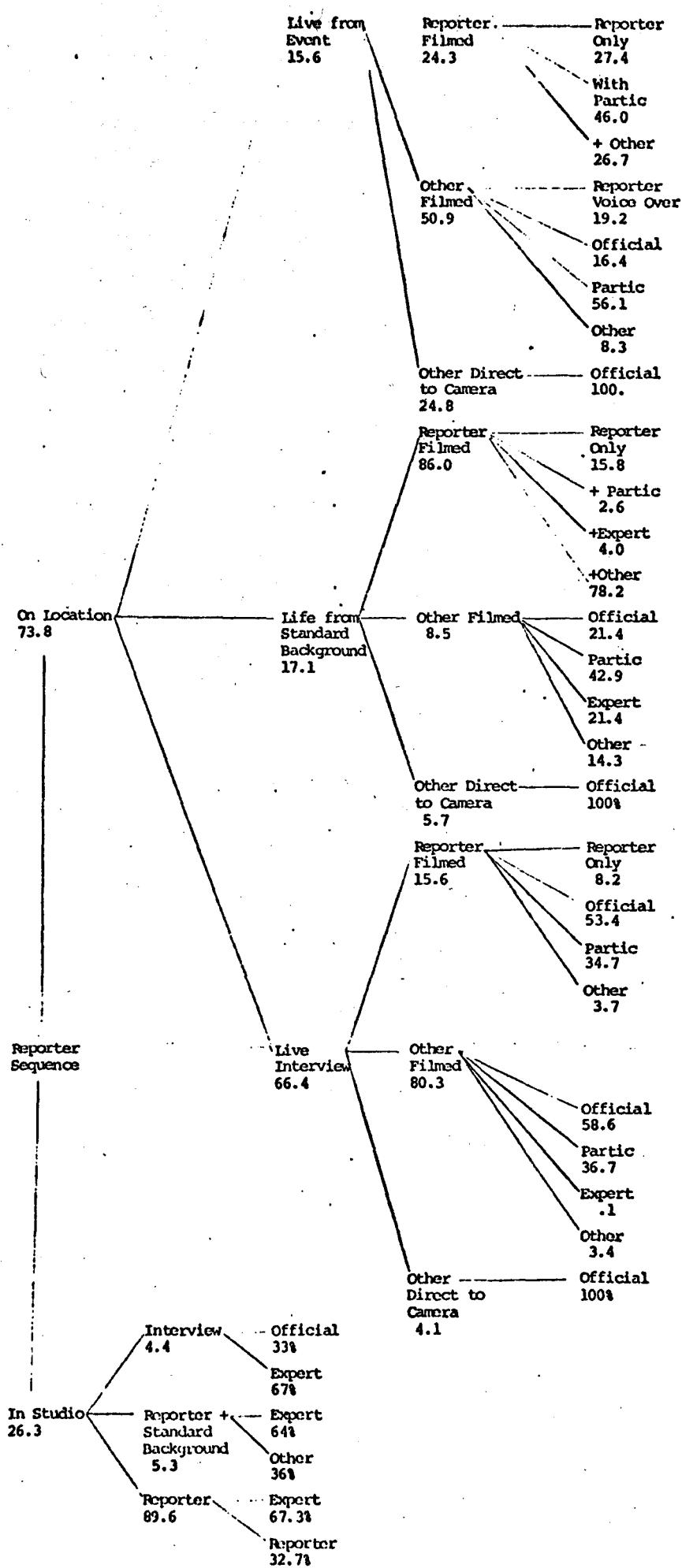
-151-

	COUNTRY			ORGANIZATION		LOCALE	
	BRITAIN	CANADA	U.S.A.	PRIVATE	PUBLIC	DOMESTIC	INTERNATIONAL
Location	65.0	82.3	82.4	73.4	74.1	71.6	16.9
Studio	35.0	17.7	17.6	26.6	25.9	28.4	83.1
Live from Event (Standard)	15.7	9.6	3.1	12.2	10.5	11.4	12.2
Live from Place	8.46	19.9	18.6	14.9	12.7	11.4	25.7
Live Interview	40.8	55.2	65.4	48.7	51.3	50.4	47.2
Report from Studio	35.0	13.8	12.8	23.3	25.5	26.4	14.3
Reporter Shown	52.2	30.2	42.0	42.8	43.9	42.4	47.0
Reporter not Shown	42.5	50.5	53.4	46.7	46.5	46.6	48.8
Other Direct	5.3	19.2	5.0	10.6	8.5	10.9	4.2
Reporter Alone	13.6	23.4	10.4	16.9	16.4	13.7	32.4
Official	34.5	38.0	22.1	31.9	35.5	35.0	26.3
Participant	19.2	16.3	42.0	23.3	21.0	22.3	22.6
Expert	22.3	11.1	17.6	18.9	16.3	19.2	11.4
Other	10.1	11.1	7.9	8.9	11.8	9.8	7.3

BREAKDOWN IN PERCENT TOTALS OF REPORTER SEQUENCES BY ORGANIZATION AND COUNTRY

152

	PRIVATE			PUBLIC		
	BRITAIN	CANADA	U.S.A.	BRITAIN	CANADA	U.S.A.
On location	70.9	67.1	82.4	59.1	97.0	
Studio	29.1	32.9	17.6	40.9	3.0	
Live from event	19.3	11.5	3.1	12.3	7.7	
From known place	10.4	17.6	18.6	6.5	22.1	
Live Interview	41.2	41.8	65.4	40.3	68.2	
Studio Report	29.1	26.0	12.8	40.9	2.0	
Reporter Alone	13.6	30.0	10.4	14.4	21.3	
Official	39.3	31.5	22.1	29.8	44.3	
Participant	19.1	9.0	42.0	19.4	23.5	
Expert	18.2	21.3	17.6	26.3	1.9	
Other	9.8	8.1	7.9	10.1	9.8	
Reporter Shown	50.1	32.4	42.0	54.2	28.1	
Reporter not Shown	43.2	44.5	53.4	41.8	56.4	



Fig# 4.23 Flow diagram for Reporter and Interview Segments

film the Interview segments with the interviewee speaking directly to the camera about 14% more frequently than the other networks.

In addition, upon examining who is more likely to be the subject of an interview, it is noted that the CBC and ITN networks spend 44.3 and 39.3% of their interview time respectively with 'officials and representatives', whereas the BBC spends 26.3% of its interview time with 'experts' - more than any other network. The American network heavily favours the 'participant or witness' as interviewee. From the Flow Chart in Fig.4.23, it is further noted, that in general, for the interview sequences in which the speaker addresses the camera directly without a visible journalist as intermediary, or one off camera, the interviewee is always an official or representative. This would occur most frequently in the context of a press conference or speech. Reports coming live from the event are likely to include 'participants' and the reporter tends in these sequences to be in the picture. This is compared to the interview from an identified place, which is likely to be with an expert or official, and is also slightly more prone to exclude the reporter from the camera. Reporters who deliver their reports from the studio are frequently identified as specialists or experts in a field of journalism, whereas in the field reporters are identified as either 'correspondents' or 'our reporter in'.

Stills

The Stills Segments, only used frequently enough in Britain for our consideration here, are presented in Fig. 4.24. Essentially these stills are of people, or of maps and symbols. As well, the practice of presenting an International report as comment over a picture of the place it is coming from is used on these networks. On occasion, the photograph of the journalist is superimposed. Maps and symbols are most common for establishing location in Domestic news.

Action Visuals

Action Visual segments, being the single most prevalent segment type, were broken down in terms of the Format of the edited sequence

FIG# 4.24

BREAKDOWN OF STILLS SEGMENTS FOR BRITAIN

-155-

	ORGANIZATION			LOCALE	
	BRITAIN	PUBLIC	PRIVATE	DOMESTIC	INTERNATIONAL
Person	42.8	38.4	40.8	41.5	44.2
Event	1.7	-	2.0	2.3	-
Place	12.2	7.5	15.7	3.0	34.1
Map/Symbol	43.2	40.8	29.0	49.7	21.7

of shots, and the predominant emphasis, or orientation, judged for that segment, termed the Visuals Format and the Visual Orientation. The mean time for the Visuals Format types differed significantly at the .006 level and for the Visual Orientation at .005 level. The frequency of occurrence of Visual Format types in different countries showed significant differences at the .0005 level, and for Visuals Orientation at the .05 level. A complex interaction for length of segment was found between the Orientation of the visuals, Country of Broadcast and Locale. As well, the Visuals Format was seen to interact with Locale at the .01 level for length of broadcast, but was not significant for frequency of occurrence of segment types. The relationship between Organization and Visuals Segment factors was quite complex as well. Although the length of the segment for the Visuals Format differed significantly between Public and Private organizations, the differences for frequency of use were not significant. It is further evidenced that in terms of Visuals Orientation, when broken down by country controlling for organization, differences are significant for Private, but not between the Public Organizations.

Fig.4.25 shows this data displayed for percentage of broadcast time. It is noted that the YAT Visuals Format is the most frequent, composing 59.1% of broadcast Visuals time. The use of this Format varies over countries: from Britain 40.4, Canada 62.1 and the USA at 88.8% of the time. It is further noted that only the Balance Format does not have a comparable Visuals Format that is used as the basis of organizing action visual sequences in parallel with stories format. Chronological Visuals Formats, on the other hand, are used more to organize Segments than for Stories at 21.3% of the broadcast time for Action Visuals Segments. Inferences (cause, agency, association etc.) are present in Visuals Segments just under 20% of the time. A main difference between countries occurs in the use of the Chronological Visuals Format, with Britain using it almost on a par with the YAT format, whereas the American networks rarely uses this Format. The Canadian network, low in the use of the Statistical format for stories, does show a slight tendency to use the Factual Format for segments. Data over Organizations are generally comparable, with the Private organizations, weighted by the USA networks' data, with a higher

FIG# 4.25
 : VISUALS FORMAT BROKEN DOWN FOR COUNTRY, ORGANIZATION,
 AND LOCALE

157

	TOTALS	BRIT.	COUNTRY CAN.	U.S.A.	PRIV.	ORGANIZATION PUB.	LOCALÉ DOMES.	LOCALÉ INTER/n
CHRON	21.3	39.0	14.0	1.8	19.2	24.3	16.6	26.6
FACT	3.1	.75	5.9	2.0	3.3	2.9	4.8	1.1
INF	13.8	17.2	13.8	7.2	11.0	17.8	14.0	13.5
YAT	59.1	40.4	62.1	88.8	63.8	52.2	62.0	55.7
OTHER	2.1	2.3	2.3	-	2.0	2.7	2.6	1.4

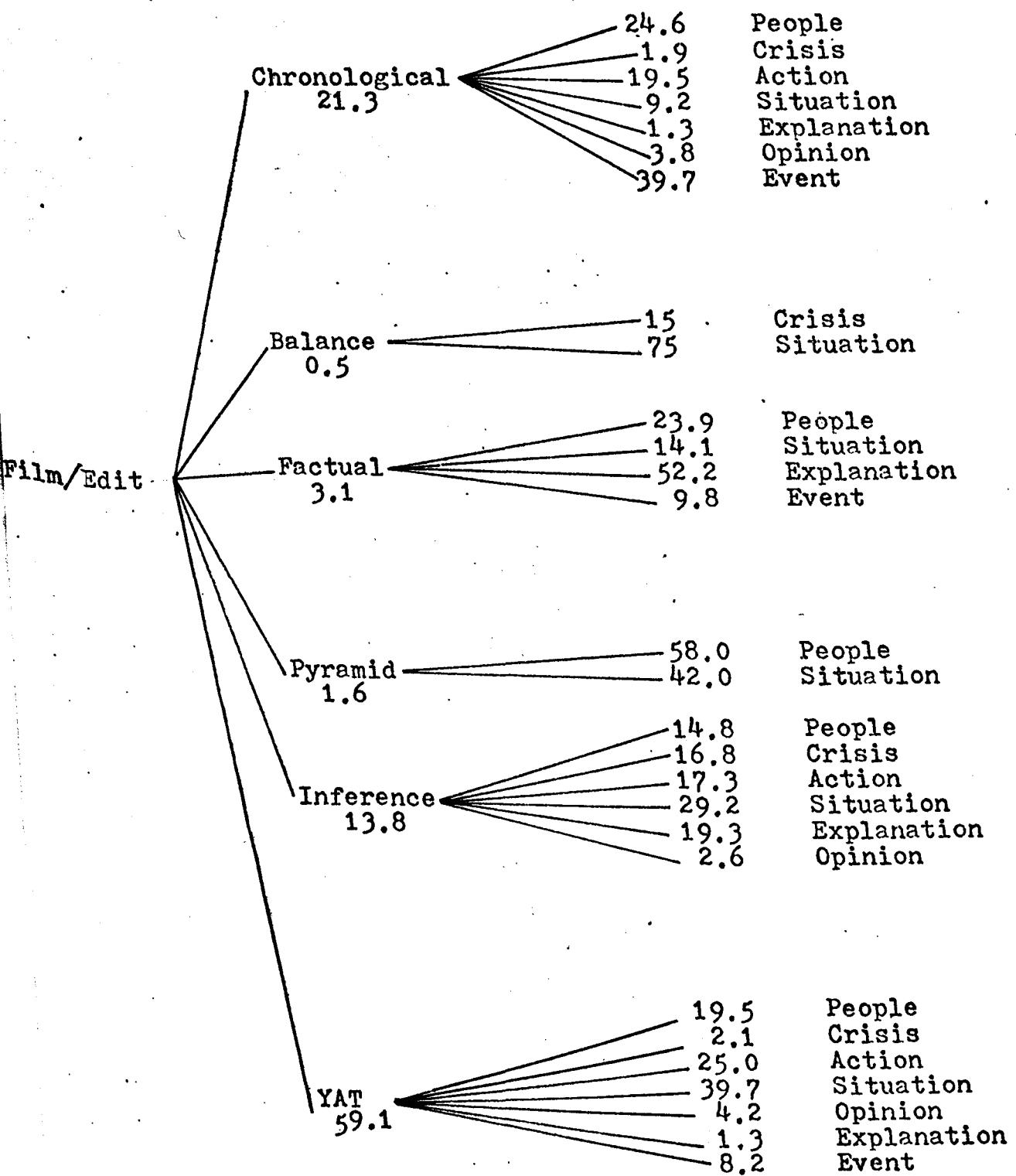
proportion of YAT segments. International news tends to utilize the Chronological Visuals Format to a greater extent and the YAT Format less than does Domestic News.

Fig.4.26 breaks down the relationship between Visual Format and Orientation in the form of a flow diagram. Generally, the orientations of the Chronological sequences are Immediacy (39.7%) and People (24.6%) oriented. The YAT format is Situation (39.7%) and Action (25.0%) oriented, with the Inference segment being more evenly distributed over a larger variety of orientation types, with a slight emphasis on Situation (29.2%). Fig.4.27 breaks down the Orientation of the Visual segments and shows that for these Action Visual sequences the prime orientation is to Situation, with People, Immediacy and Action following closely. Differences of emphasis for countries showed Canada to be the most Action oriented, with the USA emphasizing Situation. The British Networks tend to emphasize the Immediacy of the event to a much greater degree than the North American networks. Slight differences for Organizations also occurred with Private networks emphasizing people and situation more. Immediacy seems more important in the presentation of the International news segments whereas Situation is more important for Domestic news.

Audio Components of the Segments

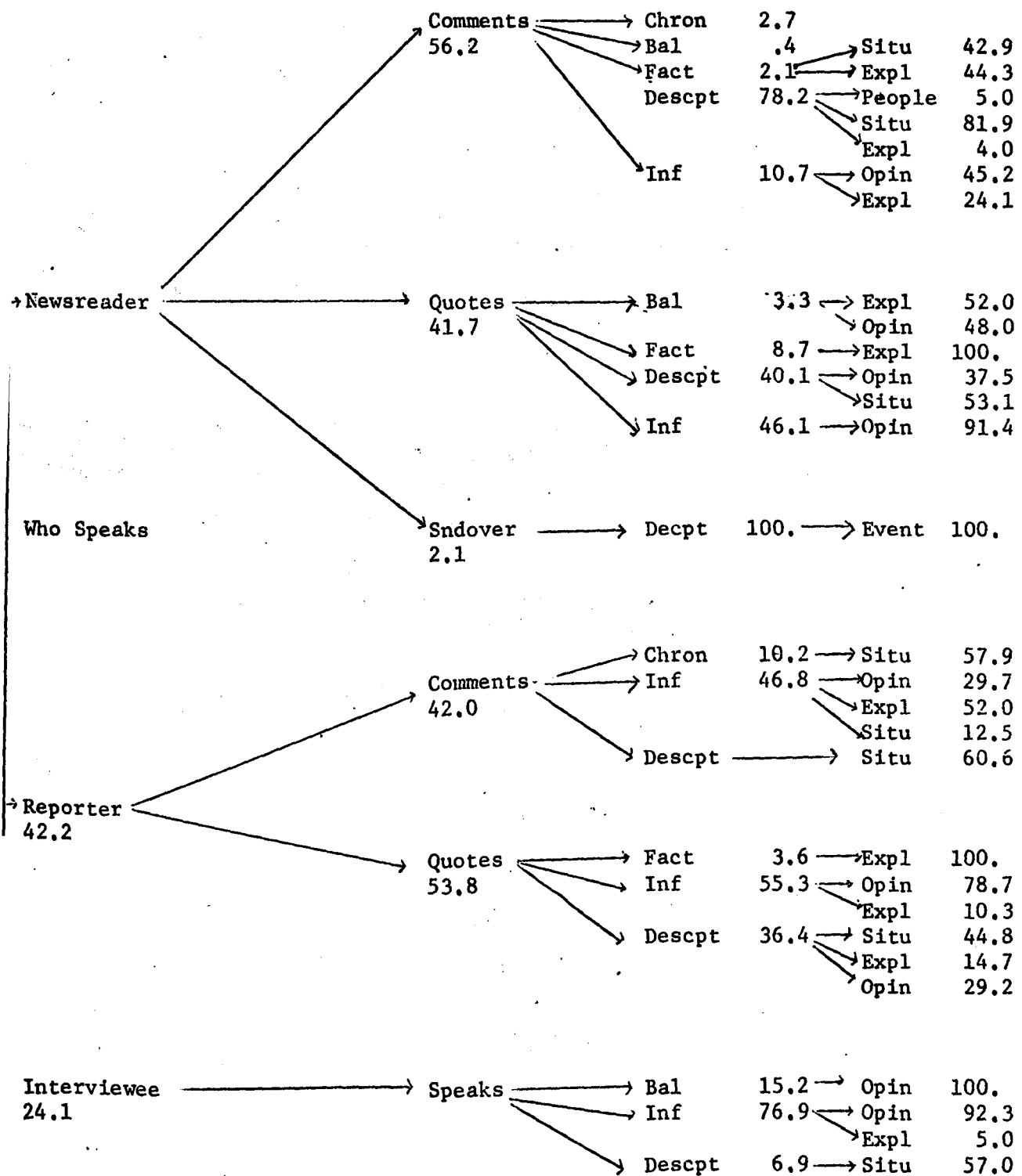
Fig.4.28 displays a flow chart for all data showing choices in the Audio track in the production of news stories. Figs.4.29, 4.30, 4.31, and 4.32 display data broken down for Who speaks, What kind of comment is made, the Format for organizing the commentary, and its Orientation respectively. It is noted that differences between lengths and frequencies of occurrence of the Audio categories occur at highly significant levels for the whole sample, although these factors interact with Country and Locale, and to a degree with Organization, to produce the distributions shown. It is also noted that the reporter, although appearing less frequently than the newsreader visually, is the predominant 'voice' in the news commentary, although this is slightly less true of the American network. International news tends to be reported by the Newsreader to a greater extent, and actual interviews are much less frequent than for Domestic news.

Fig # 4.26: Flow Diagram Showing the Relationship between Visuals Format and Visuals Orientation



	TOTAL	BRIT.	CAN.	U.S.A.	ORGANIZATION	LOCATE		
					PRIV.	PUB.	DOM.	INTER/
PEOPLE	25.6	26.3	26.8	22.2	29.2	20.6	24.4	27.
CRISIS	5.0	8.3	1.5	5.6	4.2	6.1	4.4	5.
ACTION	16.9	12.0	23.7	12.8	13.9	21.3	19.0	14.
SITUATION (Background)	27.2	15.6	27.5	49.1	30.3	22.9	32.8	21.
OPINION	1.7	2.7	1.6	-	.1	3.8	2.2	1.
IMMEDIACY	17.6	30.0	10.4	8.3	16.3	19.4	10.4	25.
EXPLANATION	5.9	5.1	8.5	2.1	5.9	5.8	6.9	4.

FIG. #4.27: VISUALS ORIENTATION BROKEN DOWN FOR COUNTRY, ORGANIZATION
AND LOCATE.



FIG# 4.28: Flow Diagram showing soundtrack choices.

FIG # 4.29 WHO SPEAKS IN THE SOUND TRACK (AUDWHO) BROKEN DOWN FOR COUNTRY,
ORGANIZATION AND LOCALE

-162-

		COUNTRY			ORGANIZATION		LOCALE	
	TOTAL	BRITAIN	CANADA	U.S.A.	PRIVATE	PUBLIC	DOM.	INT.
NEWSREAD	33.8	34.7	32.	34.5	35.1	31.8	30.8	40.2
SOUND OVER	1.8	.5	3.5	1.6	1.1	2.7	.7	4.2
REPORTER	40.4	40.2	42.9	36.7	40.5	40.3	39.0	43.4
INTERVIEWEE	23.3	24.6	21.5	23.3	22.0	25.2	28.3	12.3

TOTAL		COUNTRY			ORGANIZATION		LOCALE	
		BRITAIN	CANADA	U.S.A.	PRIVATE	PUBLIC	DOM.	INTER.
COMMENTS	38.0	48.2	32.5	24.3	34.4	43.4	32.3	50.4
QUOTES	37.7	25.7	45.3	52.0	41.9	31.3	39.3	34.3
OTHER SPEAKS	22.2	23.6	20.5	21.6	21.0	23.9	27.2	11.3
SOUND OVER	1.8	1.7	1.7	2.1	2.1	1.2	.7	4.1

FIG # 4.30. TYPE OF COMMENTARY FOR SEGMENT (AUDWHAT) BROKEN DOWN FOR COUNTRY, ORGANIZATION AND LOCALE

FIG. 4.31.

BREAK DOWN OF AUDIO FORMAT BY COUNTRY, ORGANIZATION & LOCALE

-164-

	TOTAL	COUNTRY			ORGANIZATION		LOCALE	
		BRITAIN	CANADA	U.S.A.	PRIVATE	PUBLIC	DOMES	INTER
CHRONOLOGI-CAL		2.6	4.0	2.1	2.2	4.2	2.7	3.7
BALANCE		3.4	7.8	7.4	4.1	8.1	6.8	3.4
FACTUAL		4.7	3.4	3.7	4.9	2.6	5.0	1.9
PYRAMID		.9	.5	-	.6	.6	.7	.3
DESCRIPTION		44.3	36.3	52.5	38.9	40.5	31.1	57.9
INFERENCE		44.1	48.1	34.3	49.2	44.0	53.7	32.9

	TOT	COUNTRY			ORGANIZATION		LOCAL ^E	
		BRITAIN	CANADA	U.S.A.	PRIVATE	PUBLIC	DOM.	INTER.
PEOPLE	2.2	2.0	2.9	1.6	2.6	1.7	1.6	3.7
CONFLICT	2.8	2.7	4.6	-	1.5	4.8	1.2	6.3
ACTION	.5	-	1.4	-	.6	.2	.3	.8
SITU	30.0	30.0	29.3	30.8	29.3	30.9	24.6	41.5
EXPLAIN	15.1	20.4	12.9	6.9	12.5	19.0	16.3	12.5
OPINION	46.2	38.5	47.9	60.7	50.0	40.6	54.1	29.0
EVENT	3.2	6.1	1.1	-	3.3	2.9	1.8	6.1

FIG # 4.32 AUDIO ORIENTATION BROKEN DOWN FOR COUNTRY, ORGANIZATION
AND LOCAL^E

British networks tend towards a higher proportion of commentary, whereas North American networks tend towards a greater use of quotation. International news is more likely to have a comment. For Domestic news, however, the use of the quotation is slightly greater. Public Organizations seem to emphasize commentary rather than quotation, by comparison with Private Organizations.

Fig. 4.33 displays data for the Format, or organization of the commentary in the sound track. Basically there is a split between descriptive and interpreted stories, with Canada favouring Description to a greater degree than British or the American networks. The CBC, and ITN both favour the Description Format for the commentary, whereas the CTV, NBC and BBC networks all favour the Inference Format for the commentary. It is further noted that the CBC, and to some degree the NBC, organize their segments in a Balance Format as well, as far as the commentary goes. It is further noted that International news leans more towards the Description type comment, with Domestic news tending towards both more Inference as well as slightly greater Balance and Factual commentaries. It is seen that the Hierarchical Format is rarely used for either organizing the Story, or for the commentary on a segment.

Data for the Audio Orientation of the commentary is displayed in Fig.4.34. It is fairly evident that the audio portion contains information about the situation or circumstances, explains the relationship between certain phenomena, or most frequently is used to provide means of expressing opinions about events and issues. An increasing emphasis on Opinion orientations is noted for the North American content, whereas the British tend slightly more to emphasize Explanation oriented commentaries than do the others. The interactions for length of segment between Audio Organization and Country, and for Audio Orientation and Country, are significant as is the crosstabulation of these categories in terms of frequency of segment types by Organization. The NBC and CTV use the Opinion oriented commentary to a greater degree than do other networks. The BBC seems to emphasize conflict in the Commentary. Foreign news stories tend to be less Opinion oriented and more Situation oriented than do most Domestic segments, and also emphasize Conflict more. It should also be

	BRITAIN		CANADA		U.S.A.
	PRIVATE	PUBLIC	PRIVATE	PUBLIC	PRIVATE
CHRON	.9	4.7	4.5	3.6	2.1
BAL	2.5	4.3	2.3	12.2	7.4
FACT	6.1	2.9	4.7	2.3	3.7
PYR	1.4	.3	-	1.0	-
INF	40.3	48.6	59.2	38.9	52.5
DESCRB	43.4	32.3	29.3	42.0	34.3
OTHER	5.3	6.8	-	-	-

FIG # 4.33 AUDIO FORMAT BROKEN DOWN FOR NETWORKS

	BRITAIN		CANADA		U.S.A.
	PRIVATE	PUBLIC	PRIVATE	PUBLIC	
PEOPLE	2.8	1.2	3.8	2.1	1.6
CONFLICT	3.1	2.1	.7	7.7	-
ACTION	-	-	2.5	.4	-
SITUATION	31.3	28.5	24.2	33.6	30.8
EXPLAIN	17.3	24.0	12.2	13.4	6.9
OPINION	37.9	39.3	55.2	42.0	60.7
EVENT (IMMEDIACY)	7.3	4.7	1.4	.8	-

FIG #4.34: AUDIO ORIENTATION BROKEN DOWN FOR NETWORKS.

noted from the Audio Track Flow Chart, that when the newsreader comments the segment is usually a description of the situation, whereas when the Reporter comments the segment is more likely to be an Inference Format oriented to Explanation, or a lesser degree opinion.

When the Newsreader quotes, the segment is most likely to be an Inference expressing an Opinion, or also frequently a Description of Opinions, or of a Situation. The Reporter is more likely to apply an interpretive framework when he uses quotation in an Inference Format, and this is to a high degree for the expression of his opinion.

Channel Redundancy in Segments

Since for segments, the measurement of audio and visual information was taken separately using a common set of Format and Orientation categories, the amount of redundancy of these two channels for both Format and Orientation can be estimated. Since in the Newsreader, Reporter and Interview segments the visual information depicts the speaker, it is only the action visuals sequences that will be considered in this analysis. Fig.4.35 breaks down this data for Country, Organization and Locale, and Fig.4.36 shows tests of significance on the frequency of category concurrence, for audio and visual channels. Redundancy is considered to occur when the same category for Format or Orientation has been recorded for a given segment in both the audio and the visual segment codes. Fig.4.37 displays the percentage of total time in Action Visuals for which Format redundancy occurs. It is apparent that the amount of Redundancy depends on the Visuals Format that is being used for the segment, differing over countries. The Inference Format tends to be used simultaneously in the Audio and Visual channels to a greater extent than the YAT/Description, or the Chronological Segment Formats. Fig.4.38 displays the percentage of redundant segment time for Segment Orientation as well. For the visual Inference segments, both Explanation and Opinion categories can be considered redundant. The small percentage of overlapping Formats is verified at the .004 level in the Chi Square comparison and at the .00001 level for Segment Orientation.

FIG # 4.35: BREAKDOWN OF PERCENTAGE OF REDUNDANCY OF VISUALS ORIENTATION FOR COUNTRIES AND ORGANIZATION.

VISUALS FORMAT

-170-

	% TOTAL OF VIS SEG	BRIT	CAN	USA	PUBLIC	PRIVATE
CHRON	21.3	16.8	61.9	0	38.9	19.7
FACT	3.1	0.0	17.7	100	0	38.6
PYR	4.9	0.0	0.0	-	-	-
INF	13.8	79.4	73.9	61.6	73.1	70.5
YAT	59.1	18.8	53.6	46.7	42.5	54.3

Fig #4.36: Chi Square test on Frequency of Segments for Redundancy of Channels

Factor	Level of Significance
Visual Format x AudOrientation	.002
Visual Format x AudFormat	.0001
Visuals Orientation x AudOrientation	.004

FIG #4.37: ANALYSIS OF PERCENTAGE OF AUDIO/VISUAL REDUNDANCY
FOR VISUALS SEGMENTS: SEGMENT FORMAT

VISUALS FORMAT

AUDIO FORMAT

	CHRON	BAL	FACT	PYR	INF	DESCRIBE
CHRON	28.7		1.4	-	21.4	47.3
BAL	-	20.0				80.0
FACT		10.9	23.9	-	56.5	8.7
PYR	-	-	-	-	25.0	75.0
INF	-	7.7	-	2.0	71.9	18.5
YAT	3.1	2.2	1.1	-	36.5	57.1

FIG. 4.38.

ANALYSIS OF PERCENTAGE OF AUDIAL/VISUAL REDUNDANCY
FOR VISUALS SEGMENTS: SEGMENT ORIENTATION

-173-

AUDIO ORIENTATION

VISUALS ORIENTATION	PEOPLE	CONFLICT	ACTION	SITU	EXPL	OPIN	IMMEDIACY
	8.3	4.1	-	31.7	9.3	33.9	12.7
CONFLICT	-	9.2	-	44.3	35.0	11.5	-
ACTION	2.2	16.0	6.7	39.0	5.3	20.6	10.0
SITU	1.6	4.6	-	48.5	10.9	33.6	.7
INF	-	-	-	3.4	65.1	31.4	-
IMMEDIACY	-	.8	-	51.6	22.5	12.7	12.4

Section 4.7:

Discussion of Message Analysis

This discussion will proceed with two purposes in mind, revealing the dual role of message analysis in communication research. Within the approach taken by this study, the 'message' is viewed as determined by the combination of the cultural and organizational settings in which news is produced. This process by which messages are generated and broadcast has been referred to as the institutional process. Additionally, the message composes the stimulus field from which receivers process information, and as such, factors within the structure of the message itself may be extremely important in determining how that message is processed by receivers. This does not imply that those factors found in the analysis of the cultivation process are directly reflected in the way the news messages are processed. There are good reasons to believe that the cultural and organizational based factors which determine 'encoding pragmatics' for the news message bear little relationship to the 'decoding pragmatics' of individual human receivers. In this study one particular feature of the television medium - the bimodal (audio-visual) nature of the information it transmits - has been viewed as an essential underlying feature common to the whole communication process. It is this bimodal nature of television news that is used in this study, to provide the analytical link between the analysis of the institutional process, and the processing of the news message.

The News Message and the Institutional Process

In an exploratory study of this nature, it is not easy to draw simple and definitive conclusions from the data. A large variety of factors have been thought to influence and shape the production of news programmes, but, as they work in relation to each other and interact, the message analysis reveals the effects of combined influences and not single causes. This has certainly been shown to be the case in this study, with second and third order interactions of high significance being typical of the results. However, some tentative principles relating the outcomes of the message analysis

in terms of 'institutional process' of news broadcasting, as stated in the research hypotheses, may be outlined.

Of prime importance in the discussion of all of the results presented is an observation related to the confirmation of Hypothesis 5. Essentially this hypotheses was concerned with the degree to which news broadcasting does act as a highly codified message system. The degree to which the news programme follows 'formulae' in Newcomb's(1974) terms, or implicit rules of procedure in the gathering and editing processes, should be evidenced by regularity and pattern in the actual messages. The paradigms for production and the news values combine with the procedural limitations of the technology, in addition to the general values and practices of the news profession, to give form to the stories. One might initially be surprised at the similarity of the 'news' not only between different organizations within the same country, but across the three countries under study. In fact there does seem to be a limited number of story types that occur with a high degree of regularity on most networks, as well as some general principles by which the visual segments and the commentary are organized. Different contents and story formats are not only used selectively, but also the length of these story types and their emphasis vary within common bounds. The identification of these basic and recurring elements is the necessary first step in establishing the 'code' of news broadcasting. Strong evidence has also been gathered for the argument that this 'code' establishes relationships between the content (subject matter) of the story, and its format (presentational aspects), rendering a differential emphasis on different stories. These formats also seem to give expression to the different models of fairness - the journalistic paradigms as to how to avoid story bias. However, different networks apply these in a different manner to different content types. For example, ITN uses the Balance Format for Labour stories, the BBC uses it in the coverage of both Labour and Political news, whilst NBC uses this format for Economic news. This is typical of the results for the three models of fairness. Strong similarities were also found across all networks for their differential treatments of International stories and Domestic ones. A sense of this general code can be derived from the Flow Diagrams which illustrate the choice sequences in terms of likelihood of occurrence of various elements in the production of news stories. Although each network speaks the news 'language' with an

accent of its own, there are grounds for asserting that a 'code' for television journalism does exist.

Having accepted the existence of this 'code', it becomes important to turn to the cultural and organizational factors that influence the use of this code, and which result in the particular styles of news broadcasting evidenced in the data. It was argued in the formulation of Hypothesis 1, that the institutional and cultural/historical settings in the three countries differ enough to result in differences in the news broadcast within them. The Nationality factor was strongly significant throughout all the dimensions of content and format measured, with the general tendency for greater differences to exist between the British and the North American contexts. The situation of Canada in this analysis is most interesting. The institutional framework for broadcasting in Canada is similar to that in Britain (see Chapter 2), particularly in terms of a mixed broadcasting set up, and a well publicised emulation of the BBC by the CBC. On the other hand, Canadian broadcasting is competing in market terms with the American networks (Davey Committee 1970), and not only between public and private networks: the CBC and CTV together command less than 50% of the audience at prime time. Due to the proximity of Canada and the US, many other cultural factors link the countries as well, and this tends to make the trade-off between cultural factors and the institutional arrangements a difficult one for Canada. In the results of this study, for presentational factors at least, Canada seems to lie 'between' the US network and the British networks.

With regard to content of news stories however, this pattern is more difficult to interpret. Social and Crime stories are emphasized similarly in Canada and the US, both to a greater degree than in Britain. For Labour, Political, Economic and Military stories, however, Britain and the USA show similar emphasis, whereas Canada displays a different pattern. It is further noted that for these latter content categories, large differences occur between Domestic and International news. This becomes important when it is realized that it is precisely in terms of Canada's larger proportion of International news that the interaction between Country and Locale was structured. Canada, devoting about 45% of its airtime to International

news, is more similar to coverage of Swedish networks (SR/PUB 1973) than to the other two. The 25-30% foreign coverage of the American and British networks is similar to that found in other studies of American news (Lemert 1974, Russo 1971). This suggests that a third factor enters into the elements of the cultural setting. Canada, like many other minor powers (Galtung and Ruge 1970), is more dependent upon events that take place within the major nations that make the news, and is itself a 'white spot' in the international news map. As the selection of foreign news contents has its own priorities, and Canada reports more foreign news, a different overall emphasis in the content of the Canadian networks results. In fact, it is in just those categories of Political, Economic and Military contents that illustrate these trends that relate selection of foreign news to the content emphasis of Canadian news.

This explanation offers a new interpretation to Singer's (1970) findings of differences between the Canadian and American coverage of the Vietnam War. He had overlooked the simple fact that the War for Canada was by and large a 'foreign story', whereas for the USA it was domestic. In the light of our evidence comparing the contents of Domestic and International news stories, it becomes difficult to ascertain where the differences he turned up are due to 'core cultural values,' or due to the difference of emphasis given to foreign stories. In this present study it was found that Canada has the highest proportionate coverage of both Military and Crime stories, which is in direct contradiction to Singer's findings in which the CBC is attributed fewer 'aggression items'; and here his definition of an aggression item may be questioned. The interpretation offered here is that differences in proportionate foreign news coverage between high status and low status nations will be a major element in shaping the overall emphasis of news contents.

However, when a comparison is made of the presentational aspects of news messages a slightly different pattern emerges. The trend on all dimensions of format is for the Canadian results to lie between the British and the American proportions. In the use of the Newsreader, Reporters and Visuals, as well as in the use of the Inference, Balance and YAT formats for news stories, the differences between the cultural and institutional settings in these countries seem to be ordered.

This result is in keeping with the argument that the American situation reflects the demands of the mass market forces to a higher degree than do the more regulated Canadian and British situations. In Canada the opposing influences of the institutional framework and the market forces seem to result in a compromise position for news presentation. The directives of the legislation to inform and educate the public, and a greater 'public interest' orientation present within the workings of the mixed broadcast systems' public service ethos, must be balanced against the need to compete in the market for audiences. The workings of such forces are exerted more upon 'style' of presentation than upon content.

Further, it was hypothesized that the part played by market forces on influencing television news would tend to minimize differences between organizations within any cultural system through the process of mass market competition. Again, it was thought that differences in content would be less significant than differences in presentation or 'style' for these organizations. The statistical comparisons between Organizations for content, and for most dimensions of Format, were not significant nor were there interaction effects. Only several dimensions of Audio Format were related to the difference in Organization. The interpretation of these comparisons by Organization require some prior elaboration, however, because a variety of factors and levels of editorial policy are thought to jointly influence the output of the organization. In broad terms, the goals of the organization (public service and profit) might be thought to vary the balance between the demands of the institutions of broadcasting, the legal and political frameworks, and the demands of the audience. General editorial policy could either lead to an emphasis on 'in depth coverage' with interpretation and explanation of daily events, or it could lead to a 'hard news' style, with basic reporting and description. In addition the emphasis of the programme might be directed towards the impact and appeal of the news stories for its audience.

Tests of significance for organizations seem to reflect that, within countries, these broad goal-related differences do not occur in any consistent pattern. Possibly, the fact that public organizations tended to use commentary more than quotation, and to use an interviewee's own speech, and to use the balance story format, are indicative of some of the broad differences in the 'ethos' of broadcasting for Public

organizations.

In terms of the 'bias' or 'fairness' in the treatment of the news by networks, it is extremely difficult to make any broad interpretations concerning editorial policy. A network may use, with different emphasis, any of the three general models for 'fairness' and may apply these differentially to different contents. Public networks seem to place a greater emphasis on the Balance story for the coverage of Labour and Political news, and a lesser emphasis on the more interpretive Inference format, but tend to use Inference more for Social stories than do Private networks. However, in most instances in this study, the patterns of data are more indicative of a 'style' of coverage for an individual network, rather than of any consistent differences that might be related to the contrasting goals and objectives of public service and profit.

It may be useful to provide a brief encapsulation of networks' individual style before proceeding with the discussion:

BBC: The BBC seems to place some emphasis on educating as well as informing the public. It makes infrequent use of the newsreader and tends to rely more heavily on the reporter in the presentation of its news. The reporter frequently appears in the studio, or alternatively on location at the event itself. A hallmark of this network is the Balance story format. A frequent use of the Inference structure in the commentary, in keeping with the Explanation orientation of this network, also results in the use of experts as interviewees.

ITN: ITN seems to have a more varied and flexible news coverage, using a greater variety of formats for different contents. Although similar in many ways to the BBC, ITN tends to emphasize the Inference and Description stories more equally in the commentary, revealing a greater differentiation of 'hard' and 'soft' news. Possibly the most distinguishing feature of ITN is its Immediacy orientation, and its 'at the event' approach, with less emphasis on the interpretation of the news and more emphasis in presenting it.

CTV: At CTV, the emphasis is placed on the reporter and action visuals. The reporter either appears alone, or is off camera in the interviews. The interview sequence has low priority, with the interviewees own voice frequently eliminated in favour of commentary made by the reporter using quotation and paraphrase heard in the 'voice over'.

On this network the Inference structure for the commentary is highly emphasized, and the report as a whole gives the impression of being opinion oriented, the opinions frequently being those of the reporter himself. The total effect is of a highly editorialized newscast.

CBC: The CBC is characterized by the highest use of action visuals of all the networks, frequent interviews, and only slight use of the reporter. When the reporter does appear, it is from a location with a standard background, rather than from an actual event. Moreover, he is seldom filmed in the interview sequence. The Balance story is not uncommon, neither is a higher degree of commentary rather than quotation. The commentary is usually of a descriptive nature oriented to the background or situation surrounding the event.

NBC: The NBC news report tends to combine the highest utilization of the newsreader, with infrequent interviews and only occasional use of the reporter. Interviews are usually conducted with participants involved in the actual events, and whose quotation is frequently conveyed in the commentary. The Inference format for the commentary is typical, and the news tends to be oriented to the expression of opinion.

These stylistic trends become important when the networks are separately examined for the relationship between story format and content. With regards to British newscasting Hood(1972) has commented that the dependency of Public networks upon parliament makes them less critical of the governmental powers that be. Although both British networks tend to use the Balance story format for Labour news, the BBC tends also to use this story format for Political news. This trend of using the Balance format for Political news is also true of the CBC to a greater extent than CTV. ITN and CTV tend to use the Inference story more for Political news, indicating a greater trend towards providing interpretive frameworks for these contents. However, both public networks do use the Inference story extensively for Social and Economic news, and to a greater extent than do the private networks. This is interesting in the light of the fact that both CTV and NBC use the Balance format to cover Economic stories, with the Inference and YAT formats to cover Labour and Political news. It is further noted that both the CBC and ITN tend to spend most of their interview time

with 'officials' whereas CTV and NBC tend to emphasize participants in their news coverage. Certainly these tendencies are indicative of 'editorial emphasis', but there is little clear cut evidence concerning outright difference between Public and Private organizations.

There is a degree of consistency amongst all networks in the use of the YAT format for Domestic Issues news stories. The Report and Statistical Formats are particularly used for Economic news in Britain, whilst only the Report is employed for this kind of content in Canada. The Report was used most frequently in the USA showing an inclination towards 'hard news presentation'.

It had been felt that Private Organizations being more oriented to the market, might show a greater emphasis upon dramatic visual presentation in the visuals sequences. Private Organizations were found to use the YAT format approximately 10% more frequently for its action visuals, whereas Public organizations tended to use the Chronological and Inference Visuals Formats. In addition there was a greater emphasis for ITN to use an immediacy in its segments, with all Private organizations being more oriented to People and Situations in the news. On the other hand, the Canadian public network displayed a greater emphasis upon Action orientation for its visuals. Visuals on all networks tended towards the dramatization of the event. Although certain networks use different formats for the presentation, action visuals must always have the quality of being 'visually interesting'. This feature of visual interest may be broader in its definition than might be at first thought. Raw action and violence are not the only drama that can occur in a news story, for simply the access to a location or event, or to personalities in less usual settings can be interesting, as well as sequences of shots that show the actual effects of an event. The high proportion of YAT story formats that are used for Domestic issues (crashes, fires, explosions) is typical of this emphasis, whereas the Balance and Inference formats are more typical of political and economic stories, in which personalities and analysis rather than the event or its situation dominate the news.

Many factors combine to determine which stories are covered by action visuals. These include the simple pragmatics of filming such as advanced warning and the ability to get to a suitable location, along with factors that determine the perceived visual newsworthiness of an event. In the case of foreign news these factors are especially accentuated and are combined with the need to present foreign news as relevant to the viewer. This not only reflects itself in the selection

of content and treatment of international items, but in a 'national sensitivity' which proscribes a different treatment for similar content types when an item is foreign. For example, foreign political news is much less likely to be treated with the Balance format, but rather covered with a YAT story. Visuals are proportionately more common in Foreign news, with the alternative being a short Newsreader commentary if it isn't worth sending out a crew for the story. Such stories tend to be much less opinion oriented (foreigners rarely get to express their opinion directly) and much more concerned with the immediate situation. The lack of reporter sequences and interviews with foreign personalities are indicative of the economic logic of the news process. With an emphasis on descriptive reporting, such news stories frequently go uninterpreted. If on the other hand a foreign news event is covered by either a reporter or by action visuals, then the story is more likely to be an Inference format which offers some explanatory framework towards the understanding and interpreting of the event. In this way the coverage of international events is divided between the immediacy orientation of action visuals, with the interpretive framework overlaid in the commentary, and the terse newsreader delivered Report with its hard news orientation.

The preceding discussion has begun to reveal the way factors in the cultural and organizational settings of news broadcasting are part of a determinant system that gives shape to the newscast. These underlying trends were more easily unveiled when both the audio and visual nature of the newscast, as well as the content and the format of the news were examined. It is felt that further research can now proceed comparing over a larger number of countries, possibly with greater specificity of the content categories under examination. It is also hoped that the categories for content and format analysis will undergo further refinement and validation with future research.

The News Message and Message Processing

In the following brief discussion several aspects of the message analysis data will be considered for the purposes of relating the processing of the news by the viewer to the structure and format of news messages. This examination of the data in terms of the 'decoding pragmatics' places the emphasis upon what the viewers do with the news messages. This in turn leads to a search for those factors within the content and format of the news programme that influence the impact of the news on the viewers' attitudes. The results of this present study have indicated that given news items of the same content can be presented differently in terms of the format used in the story. Most researches into television news have been more concerned with those features of content 'bias' that come to influence the processing of messages than with presentational style (Frank 1973). The problem that remains however, is that of determining those elements of the news format that are relevant to the processing of television news.

In the preceding chapters, the discussion has focused upon the audio and visual character of the television news broadcasting process. This particular bimodal feature of the medium has been related to the growth and credibility of television as cultural processes, and to the separation of tasks within the broadcast organization leading to differing values being applied in the production process to the audio and visual channels. In the message analysis the implications of such factors were witnessed in terms of the audio-visual form of television news. This same distinction is useful for highlighting the basic difference between the information presented in the audio and visual channels, and for raising the implications of this difference for the processing of the messages. It can be argued that there are essentially two types of audio-visual combinations of information in the news. The first is the presenter sequence, in which a person is presented in the visuals with a commentary in the audio channel. The second is the action visuals sequence, in which a filmed depiction of the situation or event is presented in the visuals, with a spoken commentary in the audio channel. Figure 4.39 illustrates the way these two types of sequence entail the transmission of different types of information, coded in different ways ¹⁷. The remaining portion of this dissertation attempts to prove the usefulness in making this distinction for addressing the

17. The nature of these codes will be developed in the subsequent chapter

Fig# 4.39: Modality and Code of Information transmitted in Presenter and Action Visuals sequences.

Action Visuals Sequence	
Audio Modality	Visual Modality
X_1 : content channel-linguistic	Y_1 : visual information related to content
X_2 : indexical information related to source-vocal	Y_3 : visual information related to context
X_3 : contextual information related to the event-sound over	
Presenter Sequence	
Audio Modality	Visual Modality
X_1 : content channel-linguistic	Y_1 : visual information related to content in back projection
X_2 : indexical information related to source	Y_2 : indexical information related to source
X_3 : contextual information related to event in sound over	Y_3 : contextual information related to source

issues concerned with the processing of television news messages.

The most dramatic illustration of the difference between these two types of sequence can be seen in the coverage of foreign news. Here the clearest division between the studio basis of the newsreader and the event orientation of the Action Visuals sequence are noticed, with these two types of segment dominating the presentation of International news. Even if it were assumed that the commentary was identical in both sequences, the differences between the visual presentation of the 'source' of the news rather than 'the event itself' may be of great significance, at least to the degree that visual information is important in message processing.

It is precisely this difference between 'source' and 'event' related information in the visuals that will be considered here as relevant to the effects of these segments upon attitudes of the receiver.

In the 'presenter' sequence the source categories included the newsreader, reporter and interviewee. It is noted that the different networks achieve various proportionate uses of these roles. The American Broadcasters tend to favour the newsreader and make little use of the reporter, revealing the degree to which the newsreader emerges as a central feature of this news programme. The British networks on the other hand, use the reporter to a greater extent, with less emphasis on both the newsreader and interviewee. The type of interviewee also differs, with the Americans favouring an eye-witness and the British a known official or expert. The effects of these differences in 'coverage' style on news credibility and attitude change, will hinge on the effects of the presentation of 'persons' in the news; particularly their presentation in the visual channel. There has been little research however which has investigated the effects of news broadcasting in the light of the of 'the presenter' in the news programme.

The Action visuals sequence comprises approximately thirty percent of the newscast, and is the common and highly prized feature of all networks. It is this aspect of the news programme that was developed to attract viewers to the screen and make the news impactful. It is also in the production of such sequences that the differences between the values of the journalistic and filmic professions most manifest themselves in terms of differing emphasis and story format for the audio and visual channels.

Although both audio and visual channels transmit information directly about the news event, the organization and emphasis of this information is seen to vary in its similarity depending on the nature of the format used. The Inference format for the visuals is frequently commented upon by a similar format sound track. However, 35% of YAT stories, 56% of Factual stories, and 21% of Chronological stories also use the Inference commentary format. This indicates the extent to which a seemingly non-interpretive visuals format is accompanied by an interpretive framework in the sound track. The 'orientations' of the audio and visual channels also lacks redundancy. Again, except for the visual inference format (which usually receives an explanation oriented sound track), the emphasis of audio and visual channels is frequently different: person oriented visuals are matched with explanation oriented commentary, or action oriented visuals with inference in the narration etc. What is revealed by these differences is not only the separation of task and technology in news production, but also a separation in the actual message presented in the audio and visual channels. Neither the effects of adding similar visuals to the news commentary, nor the implications of modal based difference in information, have been considered in investigations into the impact of television news broadcast.

This issue will form the basis of the study undertaken in Chapter Six.

PART TWO

THE CULTIVATION PROCESS

**The Effects of Broadcast
News**

INTRODUCTION TO PART II

The Social Context of the Individual and Message Processing

The impact of messages on a receiver's opinions have been a central concern in most analyses of the cultivation process. Differences in broad theoretical approaches has led to an emphasis on either the effects on the receiver as an individual, or the effects of the message system on the cultural collectivity, or some subgroup thereof, (ie. opinion leaders, minority groups). The following two chapters will be confined to the consideration of message processing in terms of the effects of the 'presenter' and 'action visuals' type news stories on opinions, on the individual level of analysis. Further work, beyond the scope of this dissertation, must seek to relate these factors on the individual level to the broader issues relevant to the whole cultivation process and social change. However, before proceeding, it is worthwhile to briefly overview the social context of the individual as a message processor.

Central to a concern with the relationship between individual message reception and social processes, as Halloran et al (1970) have clearly stated, is the notion that "what the viewer brings to the media situation is just as important as the content presented to him". This view marks a transition from earlier notions of the effects of media systems on homogeneous and passive audiences, with its explicit concern with content determinism. Rather, it sees the individual embedded within the social order. Variations in attitudinal, perceptual and motivational factors characterize individuals in their relationship to positions within the social structure. These characteristics the viewer brings with him into the viewing of television news and they are pertinent to the viewer's perception of TV news. The effects of the TV message system are thought to depend upon these factors that influence individual processing, as much as upon the content and format of the news itself. Theories of norm reinforcement and selective exposure effects of the mass media information system, are based upon such differential processing by subgroups of the mass audience, as well as individual differences.¹

However, the effects of television news on social processes must also be considered as an element in the viewers predisposition to the processing situation, making this equation self modifying, for the media

1. Although most of these theories focus on content related factors and discrepancy from the individual's opinion of the message system as the basis of such phenomena;

system itself must be considered part of the process for socializing attitudes (Himmelweit et al 1960) and for the ongoing regulation of them (Murdock 1974). This is made more complex by the fact that media consumption, is seen to vary with social structural variables (Greenberg and Dervin 1973), and therefore the effects of television on various aspects of the social structure cannot be thought of as uniform.

The above features emphasize how attitudes must play a focal role in the analysis of message processing in the social context. Receivers are not identical. To the extent that attitudes are integral to and determined by social processes, they can be seen as a means of operationalizing social processes on the individual level of analysis. Differences in attitudes should be related to various social structural factors and other social phenomena - one of which is the impact of television upon attitudes. However, to the extent that established attitudes within the receiver are themselves determinants of an individuals' message processing, they must also be considered in the impact of the media system upon attitudes. In this way attitudes, by influencing the processes of message assimilation in individuals, reify those factors within the structuring of attitudes as a social process. Within this merry-go-round of effects, attitudes play a crucial role in the analysis of message processing. They become the mediational variable that allows us to examine the relationship between the individuals' processing of the news, and the broader impact of news broadcasting on society.

Recently, the impact of television news broadcasting on the overall societal processes of information distribution and attitude change, and on the defining of images of reality, has received some examination. Williams(1974) and Murdock(1974) have been most concerned with the role of television news as confirming the normalcy and legitimacy of the television interpretation of events - establishing and maintaining an ideological context in which events in the world are viewed. Gerbner (1973) has also emphasized the learning of these contextual elements as the greatest impact of the news media: for example, the assimilation within the audience of television's use of the distinction of legitimate and non-legitimate violence. Halloran et al(1970) have shown this phenomenon to be important in terms of the generation of 'expectational sets' for specific events, and for providing, within these, explanatory and interpretive frameworks for the assimilation of these news contents. Knopf(1972) has argued that in the long run, through repetition, these interpretations become a

kind of mythology about events. Within this mythological framework, single events are perceived as examples of themes, provided by the frame of reference of the news media.

Klapp(1964) has developed the notion of the cultural impact of the news media to include the symbolic impact of the personalities and role categories that recur in the news. He suggests that audiences need to consume 'heroes', and television news is part of the process which defines the limited dramatic themes for the characters, and determines the actors that play in this important public drama. Further, Funkhouser(1973) has demonstrated the way television news establishes priorities for events in the public eye, whilst McCombs and Shaw(1972) confirm the presence of this agenda-setting aspect of the functioning of the media. Probably of greatest concern to researchers and politicians alike, has been the impact of the media on the political processes (Blumler and McQuail 1968), through its influence on political attitudes, issue selection, and voting behaviour, as well as on perceptions of political personalities. Additionally, Hartmann and Husband(1972) have demonstrated the way the news media can create these perspectives on other sensitive cultural problems such as racial issues.

However the direct influence of television news on collective attitudes should not be over emphasized. It is the agenda, or frame of reference, for the interpretation and establishing the significance of events, and not the conditioning of particular individual attitudes, which is the main effect of the television news broadcasting message system. Structural variations in the distribution of attitudes and processing capacities are also of interest because there are other factors which also determine the individuals' attitudes, such as education, class and family, religion, job, group membership etc. Due to various selection and attitude assimilation phenomena, differences in individual or subgroup attitudes will ultimately play an important part in the explanation of how viewers process news messages within the frameworks set by these agendas. The relationship between individual attitudes and information processing of the news is basic to the understanding of the impact of the television news broadcasting system on these broader cultural processes.

This dissertation will not address itself to the relationship between television news and the dissemination of information and opinions as a social process. However, it will be argued that the effects of television news on individual message processing - on attitudes and opinions - will ultimately provide a basic building block upon which such a theory may rest. The fact remains that opinions and expectations are instilled in the general audience not only about events, but about the credibility of the media and personalities that deliver the news. The individual receiver must be viewed as having well formed opinions about most events he sees on TV news. As a condition of information processing, this remains a crucial element in determining the starting point from which the examination of an individual's message processing should proceed.

CHAPTER FIVE

MESSAGE PROCESSING AND THE PRESENTER SEQUENCE

Introduction

In chapter two, the general credibility of television news was noted as a common cross-cultural trend. It was argued that the growth in television news' credibility was largely due to the visual immediacy afforded by that medium. The visualization of the news determined a presentational style for news stories that both minimized the perception of content bias, and increased the perception that the news was trustworthy and objective. Although the legislative factors pressured the news organizations to adopt forms of reportage for controversial news items that framed the stories as fair and impartial, these aspects of content organization would not be sufficient to explain television's greater credibility than radio - a medium that uses a similar narrative style for reportage. Rather, it was thought that two consequences of visualization of the news were crucial to explaining the rise in credibility. The first was the direct visual access to the event afforded by film in the action visual sequences. In this way the viewer by seeing the event for himself felt that the event was being more directly presented to him. The second was the greater immediacy of the newsmen themselves, and the people in the news. This feature of the news form seemed to generate the perception of having heard for oneself directly or from a reliable source, the content of the news. The visualization of the newsmen seemed to result in an increase in their perceived trustworthiness and objectivity in the reporting of news events, hence explaining the general credibility of the news. Westley and Severin(1964) were to conclude that this presence of the newsmen was the major feature in the rise of TV news credibility, and their observations should be examined more closely in the light of the two facts confirmed in this study. In the first place, the tendency of television news to personalize events, and to present issues in terms of interviews with individuals, has been documented by the large percentage of interview segments that occur in television news reportage. Additionally, the importance of the visual presentation of the newsreader and reporters, who preside in the visuals for almost one half of the newscast, and who are responsible for generating whatever interpretive frameworks are provided for the news event, cannot be overlooked. In total, the visualization of the news has resulted in a form of reportage in which seventy percent of the newscast includes the

presentation of a personalized source for the commentary: yet there is little research that has paid attention to those aspects of presentational style for these sources that may come to influence the processing of television news information (Frank 1974).

In this chapter a number of differences in the details of presentational style for the newsreader, reporter and interview segments will be discussed in the light of some of the research into interpersonal perception, source credibility and attitude change. An attempt will be made to relate these features of presentational style to the processing of news contents. Although remaining quite speculative, such a discussion may help to justify the attention given to 'visual format' in the analysis of news messages; it also may help to explain the more general trends of rising credibility for television news.

Source credibility has been an important variable in the literature on communication effectiveness, although since much of it has been directed at alternative theoretical questions it is not readily applicable to the news viewing situation. Hovland et al (1953) were among the first to raise the issue of the influence of source credibility on the processing of contents by receivers. Since that time a considerable accumulation of attributes of sources, (expertise, trust, power) (Giffin 1967) and of source image dimensions (Triandis 1971, McCrosky & McCain 1974) have been considered as relevant to attitude phenomena. In addition to these source credibility studies, considerable development has also taken place in the understanding of interpersonal interaction, perception and judgement processes. The possibilities of the direct application of this research to news media analysis concerned with the judgements of the people in the news, has been advocated by Warr and Knapper (1968). However, still quite recently Kaplan and Sharp (1974) have raised the issue of a lack of framework or model that can integrate all this research. The following discussion will attempt to clarify some of the issues, and outline some of the parameters, for such a model. Such a basis is considered necessary before further empirical research into source credibility and the presenter sequences can be undertaken.

A first distinction has already been made that clarifies the nature of the information transmitted in the presenter sequence. Abercrombie (1972) has argued that a clear difference can be noticed between 'content' and 'indexical' information. Content, in the presenter sequence, is transmitted in the audio-linguistic channel, and consists exclusively of

information about the news event itself. Indexical information is that information conveyed about the interpersonal communication act. As was noted earlier, it was this feature of the news story that was used to distinguish the presenter sequence from the action visual sequence, by distinguishing whether content or indexical information is being transmitted in the visuals. In this chapter we will be overlooking content factors in attitude change, in order to concentrate on those factors of visual presentational style related to news credibility.

The importance of modality in the further consideration of the transmission of indexical information has been raised by Abercrombie (1972). He distinguishes the indexical information into 'visible and audible' components; this distinction is clearly relevant to a medium that separates these two modalities in the production and broadcasting process. As noted in Chapter 3 different roles and technologies are involved in the gathering and editing of the audio and visual components. For this reason these modalities should be considered both separately and in combination. Furthermore, as Argyle(1975) has pointed out, non verbal (ie. indexical) communication entails the combination of a number of coding systems that utilize various parts of the body. He states:

There are a number of separate communication systems involving bodily expression which have different properties but which use the same parts of the body, often at the same time. None of these codes alone is as complex as language, but when three to five of them operating at once in an interlocking way, and are combined with language, the system becomes quite complex.

Mehrabian and Read(1973) applied this notion to the issue of analyzing the transmission of indexical information by pointing out that several codes may be transmitted simultaneously in the same modality. For example, the visual modality may transmit information which is separately decoded for body posture and facial expression; the audio modality, besides the content of the story, may transmit information coded for accent and tone of voice. In addition then, to the modality distinction, the codes which define the transmission of the audio and visual information should be further examined.

1. Michael Argyle. The syntaxes of bodily communication in J.Benthall and T.Polhemus eds. *The Body as a Medium of Expression* N.Y.Dutton.1975.

Probably the most important distinction in codes relevant to the presenter sequence is that between 'expressive' and 'contextual' information. As Cook(1971) suggests, expressive information is confined to that information transmitted about the source himself; his appearance, emotions attitudes, etc. Contextual information conveys the source's relationship to the communication act (culture, setting, role). Mehrabian and Read(1973) have alternatively defined 'context' more generally as those aspects of the communication situation which, if changed, result in a change in the processing of receivers. Although this definition is tautological, they are obviously trying to convey the sense that almost anything in the total environment of the source may be considered contextual, if it influences processing. Attention to the setting aspects of context for the decoding of the meaning of speech acts has been stressed by (Birdwhistell 1970, Trudgill 1972, Cicourel 1973). McHugh(1965) has further elaborated the notion of context beyond that of setting, to include the 'definition of the situation' in which the communication takes place, thus relating the interpretation of behaviour to the role-related situation. In the light of this research we will examine the aspects of audio and visual presentational style separately for Contextual and Expressive Information.

Visual Contextual Information

Contextual factors may be of considerable importance in establishing the varying credibilities of the different presenters in the news. It is through their repetitive and regularized appearances in specific contexts that the roles for television news performance have become defined. Horton and Wohl(1956) have called such roles 'television persona' because they only occur in, or have significance within the world of television. In the news, the filmed setting in which the persona is shown becomes a major means of defining the nature of his role. For the newsreader, the context is the studio desk usually with back projection of visuals. The reporter, appearing in the field, is usually filmed near the event, or in front of some well known land-mark. The interviewee, depending upon who he is (official, expert, eye-witness), will also be filmed in a standard location (office, lawn, laboratory or event). In fact, the control over the filmed context of the presenter sequence is one of the major concerns of news production. Swann(1975) was to warn those individuals who might find themselves in the news, of this media practice. He pointed out the importance of concordance between one's role, or personality, and the filmed setting,

in order to generate the 'right impression'. For all three television persona the setting is specifically chosen to enhance the associated qualities of the specific presenter.

The effect of these visually presented contexts however, may extend beyond the segmentation of the news roles to the explicit judgements that viewers make about them. The newsreader, for example, occurs only within the bounds of the studio, most frequently with photographic back projection and in a full frontal relationship to the camera. His persona seems to dominate the news programme with its authority and emotional naturality - his personality almost completely being submerged within his role. The studio enhances this by conveying the mechanical precision and thoroughness of the whole news gathering organization and process. The back projected pictures when added to the speech also have the impact of increasing source credibility and attitude change (Seiler 1971). The newsreader is lent authority by being the visible centre of the news process.

On the other hand, the reporter persona is witnessed appearing in the very extremities of the world. His reports come from a wide variety of locations, either identified verbally, or filmed in front of those well known landmarks. These on-the-spot reports are used by the news organizations, even though the same copy could easily be read in the studio at less expense. The repeated appearance of the reporter in these various locations infuses the news with a semblance of access that becomes a defining feature of this specific role; that is, the reporter's ability to get to the places where the news is made. The visible microphone, an important visual element in the on-the-spot report denotes this access by signifying the reporter's link back to the studio.

The interviewee role is distinguished from these other journalistic functions. This role is most interesting because, to a degree, the definition of this role lies outside the boundaries of the news organization and reveals the mutual interdependence of the news men and the news makers. There is a process by which the general expectations about the role and correct performance must be acquired by those who are interviewed (Goffman 1967). This of course can be established by the news organizations editorial control over the broadcasting of those aspects of the interview they wish to use. The pattern of who asks questions and who answers is the basis of the interviewee role; although more subtle features such as how long to speak, what kinds of expressions to use, what type of comment is desirable,

how emotional and opinionated the comment can be, are also part of the role. Performances considered by the broadcasters as 'bad' (i.e. inarticulate, confusing, nervous) would simply not be used, except when the occasion calls for such (emotionally charged situation). A 'non-performance' (refusing to participate in the interview) both establishes the boundaries of performance when incorporated into a story (he is guilty) and enhances the importance of co-operation with the interviewer. For the most part however, the interviewee is being consulted by the media for his opinion, expertise or perspective on some issue or event. The consultative nature of the interview is conveyed by the frequent inclusion of the reporter, or his response to comments within the sequence. The context of the interview segment is usually a location that either demonstrates the interviewee's relationship to the event, or conveys the role related reasons for his appearance in the interview. For example, union leaders may be filmed in front of the factory or at labour conventions, scientific experts may appear in laboratories or at offices encircled with books, and eye witnesses will appear on the street near the event, or even in the hospital. In each case, the filmed context provides a sense of involvement that the interviewee has with the content of the news story.

Although there is no empirical literature that specifically investigates the influences of these contextual factors on establishing credibility, or upon the assimilation of news contents, the possibility exists that these different contexts are extremely important in determining the viewers perception of the 'role', and hence the ascribed credibility. In this case, the authority of the newsreader, the access of the reporter and the involvement of the interviewee may be thought to have differing effects upon attitude change. There is some evidence that supports the notion of the role specificity for credibility factor structures (Applebaum and Anatol 1972). This implies that the overall credibility of television news may be contributed to differentially by these three different news persona, in terms of these roles created by being filmed in different contexts. That perceived roles are important in influencing the processing of information has been suggested by Barnlund(1968) and Saral(1972). The literature includes a variety of role related attributes (status, power, expertise) that have been shown to influence both judgements about sources, and the processing of information from them (Hovland et al 1953, Triandis 1971). As Triandis (1971) further points out, it is only specific dimensions of the social judgement process that may be influenced by changes in role definition, and which in turn may

have varying influences upon message processing. For example, the emotionality of the newsreader may have a different influence on the acceptance of information, than would the emotionality of an interviewee, because the newsreader's role is defined in terms of emotional neutrality.²

In television news, the information transmitted about the source is always information transmitted in the context of a role defined by the visual setting of the presenter.

Audio Contextual Information

It must be noted that the context of the source is rarely transmitted in the audio component of the news message. In certain cases, an international reporter sequence may be presented with a poor quality sound track creating a muffled telephone impression, which is used to convey the reporter's distance. Occasionally as well, at other times, speeches or street interviews will use an audio 'actuality sound' (frequently library recordings) to convey a sense of location, but such use of sound is rare. It seems the soundman's main task is to isolate the voice of the speakers and not to convey the sense of context through the sound track.

Expressive Factors

Within these specified roles, there are other features related to the nature of the filmed presentation and the specific mode of expression of these presenters that may also influence credibility judgements made about them. Control in the style of audio-visual presentation may accentuate the transmission of different types of expressive information for different role categories. Additionally, a previously formed source image which may be thought to have been established for each role may entail the application of different 'identification and association rules' in the social judgement process (Cook 1971). For this reason the same piece of information about the source (ie. anger) cannot be assumed to have the same consequences for the receiver's assessment of credibility for both an interviewee and reporter source. In the following discussion, some features of expressive information transmission will be examined to determine their possible influences on judgements of credibility and attitude change.

2. A classic instance that may be cited is Walter Kronkite's performance on the announcement of President Kennedy's death in which the salience of the event was emphasized by the announcer's obvious emotionality.

Before proceeding, however, a cautionary observation regarding the differences between media presented television personalities and direct interpersonal interaction should be made. Frequently these differences are overlooked in the research of social judgement processes by researchers who use video or photographs in their research on interpersonal processes. On the other hand as Horton and Wohl(1956) have pointed out, such parasocial contacts are successful in generating the illusion of face to face contact, even though a major element-reciprocity-is absent. In fact a surprising number of people do report talking back to their television sets (Davey Committee 1970).

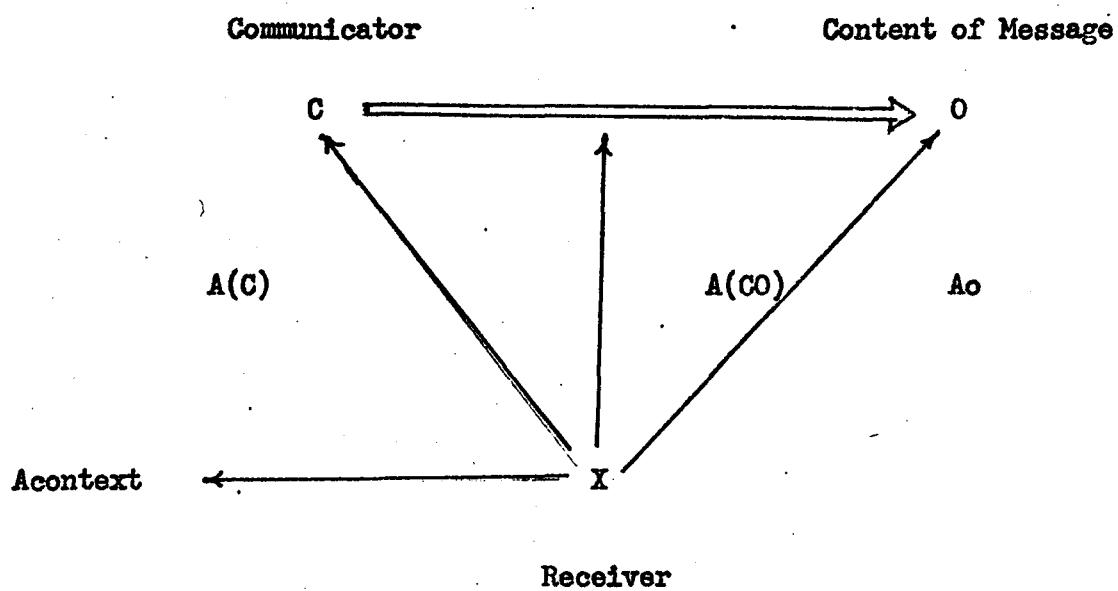
Reciprocity itself, has been regarded as an essential feature of interpersonal processes (Argyle 1969, Goffman 1967), and attempts to compensate for its absence by simulating eye contact and conversational pacing are important features of training for many television performers. Argyle(1975) in his analysis of the syntax of non-verbal interaction, notes the importance of syncronizing signals in the communication process. He argues that this feature of face to face contact is most important for maintaining the interaction. He classifies the channels of interpersonal communication as follows:-

- 1) synchronization-maintaining flow and exchange in interaction
- 2) prosodic-emotive expression, speakers non-verbal comment on what is said
- 3) feed back to speaker
- 4) conveyance of interpersonal attitude.

In parasocial interaction, it is precisely the synchronization and feedback to the speaker channels that are either stylized or absent.

The 'prosodic' and 'conveyance of interpersonal attitude' channels in Argyle's typology, are similar to a distinction advocated by Milbourne and Stone(1972) and Stone and Hoyt (1974) for analyzing the relationship between source-message and source-receiver credibility in attitude change. It will be considered that these two channels define the information transmitted in parasocial communication that comes to influence credibility. Fig. no.5.1 illustrates this distinction by modifying a model of the communication situation suggested by Heider(1958) and used by Newcomb(1968) and Mehrabian and Read (1973) for analyzing interpersonal communication processes. The model notes that for parasocial communication, the interaction dynamic is based on the receiver's perceptions and not on interaction proper. This limits the channels of communication to that of contextual information, source-message

Fig. 5. : A model for Paramessage social judgements including source-receiver, source-message, and contextual factors in the processing of the presenter sequence



Ao: Attitudes of X towards content 0

A(CO): Attitudes of X towards source-message relationship

A(C): Attitudes of X towards source (source-receiver relationship)

Acontext: Attitudes of X towards the context in which the communication takes place

relationship and source-receiver relationship as perceived by the receiver. It is these channels that are thought to explain the effects of the receiver's credibility judgements on attitude change. The perception of the source-receiver relationship(AC) may be influenced by the transmission of information in the communication act that influences those relevant dimensions of source credibility (attraction, liking, similarity, power, similarity)dimensions of judgement for source-message credibility (objectivity, reliability, expertise, involvement, self interest, intent to persuade) will be influenced by the transmission of information that effects these judgements. However, the relationship between these dimensions and the effects on attitude change will depend upon the nature of the role of the communicator (determined in the news by visual context). Various dimensions may have different salience for different sources. For example, a 'lecturer' role may entail diminished relevance of the source-receiver dimensions (liking) but a greater emphasis on the source-message dimensions (competence, expertise). A politician communicator on the other hand may find his credibility weighted more by the source-receiver dimension of judgement. For this reason the effects of source credibility of the different presenters can only be viewed within the context of their specific source image.

There are various researches in the literature that have verified the importance of source-message factors for increasing credibility and attitude change. McQuire(1968) has pointed out the importance of objectivity and competence, and Whitehead(1971) has suggested authority as dimensions that increase attitude change. Sears and Abeles(1969) have presented evidence that the perceived commitment to a content by a source can increase the amount of attitude change, even without influencing credibility. Expertize and trustworthiness of sources have both been found to influence attitude change (Triandis 1971). Miller and Basehart(1969) have also demonstrated the importance of the perception of 'opinionatedness' for source judgements and persuasiveness of sources.

The importance of source-receiver variables in credibility and attitude change processes have also had some general acceptance in the literature. In particular liking, attractiveness and preceived similarity of the source have been considered as credibility variables. (Triandis 1971). Simon(1973) has attempted to clarify the importance of perceived similarity for its effects on attitude change. He differentiates attitudinal similarity from group-membership similarity, the latter being a source-receiver variable.

He argues that in many cases the perceived similarity of a source in this latter sense will increase the persuasiveness, but that this depends on the nature of the roles. However, as he points out, there are limits to the importance of perceived similarity when objective evidence in terms of cultural stereotype of expertise, objectivity and prestige of the source over-rides the effects of dissimilarity. In this way, the separate effects of source-receiver and source-message variables are sometimes in opposition. For example, Stone and Harrogade(1969) found independant the effects of self-interest and likeability of sources on attitude change. Their results demonstrated that low-likeable sources arguing against their self-interest increased their persuasiveness, whereas this was not true of highly likeable sources. Kelman(1971) reports that trustworthiness and expertise of sources effect attitude change more, whereas liking and attractiveness effect identification as an attitude process. Simon(1973), using factor analysis on source judgements, rather than source images, finds that Respect/Expertize/Trust act as one dimension, whereas Attractiveness and Coercive Power act as another. It may be helpful then, while analyzing the presentational style of the presenter sequence, to keep in mind that the processing of the information presented is organized along these two credibility dimensions and related to attitude change.

These same dimensions of general source credibility have been seen to typify judgements of television news. Jacobsen(1969), using television news programmes as sources, found two separate factors in his analysis of the judgements made about news programmes. The first factor structure was an Objectivity/Authority dimension; the second was Dynamism/Respite. Markham(1968), comparing television news announcers as sources, found three factors to be important in the receivers judgements, including: reliable-logical, showmanship-dynamism and trustworthiness. These factor structures indicate a separation in the judgement of the viewers between those source-message and source-receiver dimensions. More generally they may also indicate the interplay between 'content credibility' and 'attractive-exciting' elements in the news programme's form. There is some reason at least to believe that these dimensions of source credibility influenced by the news programme are also important for the attitudinal effects upon the receiver. What remains to be examined is whether the actual information transmitted in the presenter sequence is sufficient to influence such credibility judgements, and furthermore, whether different presentational styles for presenters in the news may accentuate the transmission of information which influences judgements of credibility. This

undertaking will be done by considering the audio and visual channels of information separately.

Expression in the Audio Channel

Vocal information is the only channel for transmission of indexical information in the audio modality. This may include voice qualities, rate of speech, accent, level of articulation and vocal emphasis. A number of dimensions of both source-receiver and source-message credibility have been thought to be influenced by these cues. It must be remembered that a major priority in the choice and training of the newsmen focuses on qualities of voice. Many of the newsreaders had prior training in either radio or the theatre, where the training of vocal expression is of great importance. Allport and Cantril(1972) were early to demonstrate the relationship between voice and judgements of personality. They particularly mentioned the role of vocal stereotyping. Kramer(1972), in a more recent review, confirms the importance of this vocal indexical information in the formation of a variety of judgements about sources. In addition to general personality traits, this information may also convey social class (Britain) anddemographic and regional traits. In the light of Simon's(1973) distinction in the nature of perceived credibility, it may be speculated that the 'middle class' and regionally neutral accents of the news announcer may overcome the effects of perceived dissimilarity through cultural validation, and retain their perceived authority across classes. On the other hand, for the interviewee, accent may play an important part in the receivers perception of similarity-dissimilarity and hence influence the attractiveness of the source.

Social attraction judgements have been thought to be influenced by vocal information as well, more so than competence. Hart and Brown(1974) report two studies which indicate the importance of vocal cues in the communication of social attraction. For male speakers however, they found that competence was communicated vocally, as well as through the content channel. The newsreader's voice, with its pleasant richness, careful articulation and pacing, may be important in terms of these social judgements; increasing both his attractiveness and competence. Indeed, in Britain, the 'BBC accent' has come to connote these vocal features of the announcer, and indicate the way vocal cues may even be important in the recognition of the newsmen's role.

A further effect of the newsreaders careful and even articulation may hinge on the lack of emotionality trained into the voice. Davitz (1964) has presented data that demonstrates a degree of accuracy of judgement of emotional states based on non-contented vocal information. He further reports frequent misidentification of emotion based on vocal stereotypes. It may be suggested that the lack of emotionality of the newsman's voice is important in the assessment of objectivity and authority found to be typical of the newsman's role. On the other hand, lack of emotionality in an interviewee may decrease persuasiveness by indicating an absence of involvement or commitment to the issue described or opinion expressed. Particularly in the case of the eye-witness, the emotional vocal cues (sobbing, hesitation) may enhance the convincingness of the statement. Unfortunately, no empirical studies have been found that directly test the relationship of vocal attributes to the actual processing of content by receivers.

Expression in the Visual Modality

A considerable amount of expressive information is transmitted in the visual channels. The main influence of visualizing the news has been to bring the viewer in direct visual contact with the source: exposing the receiver to both the appearance and bodily expression of the people in the news. This visualizing of the source has important consequences for the social judgement process. Since static appearance variables (clothes, age, facial features) have been demonstrated to effect on a number of dimensions of social judgement (Cook 1971, Warr and Knapper 1968), and since a degree of stereotyping is typical of these judgements (Cline et al 1972), then the appearance of the presenters must be considered.

Appearance stereotypes are more relevant to the newsreader role. Traditionally, the newsreader is an older male, somewhat craggy, but not unattractive. His attire is neat and conservative. The emphasis in his stereotyped image was on trustworthiness, and to a degree his face came to symbolize the overall reliability and regularity of the newscast. More recently in North America, however, the use of female announcers, and younger males with boyish good looks can be noticed; although it is difficult to assess whether this is an important trend (most noted on local newscasts). These appearance details would signify an emphasis on the 'attractive' and 'likeability' dimensions of the source judgements by the broadcasters, and this may be due to audience research which pre-tests the audience reaction to the

announcer³, in the highly competitive bid for audiences. The appearance of the reporter is frequently more casual and less stereotyped than the newscaster's and probably has less influence on the judgements made about them.

In addition to judgements based on appearance, receivers may also be influenced by the channels of bodily communication that are afforded by the visualization of the source. It is in the transmission of this information that camera style and the training of the news men combine to have their greatest influence. Facial expression, body gesture and posture, eye gaze and interpersonal distance have all been thought to be of importance to the processes of interpersonal perception and judgement. Camera technique can control, simulate and accentuate these various information channels, and hence may be expected to influence judgements of the source. Frank(1973) for example has noted the importance of tight shot coverage in the judgement process, and Tieman(1970) has similarly investigated the effects of camera angle.

For this reason variations in the presentation of the different persona must be carefully examined. The newsreader, for example, is filmed in full frontal position either in close or medium frame (head, head and shoulders). The reporter, also in frontal position, is favoured with medium or full frame, with occasional close ups of the face. Interviewees are filmed more frequently at an oblique angle, and in full or medium frame.

Such differences in presentational style may influence the judgements about these sources, by determining the nature of the visual expressive cues that are conveyed to the receiver. Ekman and Friesen(1969) have noted the differing effects of bodily and facial information on the judgement process. They found that facial cues transmit more information about the identity of the emotion, whereas posture and body gesture provided information about the 'intensity' of the emotion, or overall arousal. Since the newsreader is photographed in 'tight shots' most of the time, attention will be focused on the identity of the emotion, rather than its intensity. As Epstein(1974) has pointed out, the newsreader is consciously aware of the limits of his personal expression, and he carefully uses facial gesticulation to indicate his personal reaction to the news. The effect of eliminating those bodily cues which communicate 'intensity of emotion' and concentrating on the announcers controlled facial expression, may be to enhance those judgements of objectivity, and reliability for the newscaster. The closer shots may also

3. A recent case in Canada of this audience research influence took place in the replacement of the CBC's national newsreader Lloyd Robertson who went over to CTV news.

simulate a more intimate interpersonal distance, a feature of interpersonal interaction that has been related to social judgements (Argyle and Dean 1965). On the other hand, the 'long shot' coverage of the interview allows for the transmission of these 'intensity of emotion' cues while minimizing the effect of facial expression (resolution is insufficient). This feature of the presentational style for interviewees accentuates the conveyance of information that may influence receivers' judgements of the source's involvement with or commitment to the content expressed.

The long shot coverage also emphasizes the role of posture as an expressive channel. Mehrabian (1971) has examined postural and positional factors in non-verbal communication, in a study which demonstrated that 'activity' information (facial and bodily activity, speech rate) conveys affect whereas postural immediacy (facing directly) and relaxation were indicators of status and potency. In the light of this research it should be noticed that the combination of training of the newsmen and the 'presentational style' used in their filmed coverage, insures that a minimum of 'affective' information is transmitted, and the relaxed but direct position that indicates authority adopted. For the interviewee, such factors will depend upon their awareness of their camera presence, although the long shot and oblique camera angles will accentuate any affective information, and de-emphasize a perception of authority.

Bodily expression may also have an effect on the perceived persuasiveness of the source. Mehrabian and Williams (1973) have investigated the relationship between non-verbals and perceived persuasiveness and found that bodily expression influences several dimensions of judgement. In their study, several degrees of 'intention to persuade' were used for sources, and judges rated the perceived persuasiveness of the communication. They found that several dimensions of non-verbal expression were correlated with the perception of the persuasiveness of the communication. The factor that was most closely related to persuasiveness included eye contact, self manipulation, facial activity, speech rate and volume: these are the factors that are most influenced by the differences in presentational style for the different news personas. In a subsequent study, further investigating this phenomena, they controlled for camera angle, percentage of eye contact and degree of relaxation, and measured their effects on several dimensions of social judgement. Eye contact was related to persuasiveness, but only in an interaction with the sex of the viewer. Postural activity was related to perceptions of 'liking', whereas relaxation in posture influenced the perception of

persuasiveness. This research again substantiates the notion that the differences in presentational style which accentuate different bodily cues of the presenter may influence the receivers' judgements and the persuasiveness of the source. In the case of the newsreader, this is due to the carefully directed eye contact, close-up coverage, and unemotional body cues which generate the impression of dominance, relaxation and objectivity. For the interviewee, it is an increase in the importance of body posture and gesture which are emphasized. This conveys the emotionality of the source which may influence judgements both of the involvement with content and the 'attractiveness' of the source.

Several researchers have more specifically examined the effects of eye gaze and camera angle in television announcing. Since the newsreader is trained to carefully control his eye contact with the camera, whereas the interviewee, filmed at an angle, rarely takes more than a sheepish self conscious glance at the camera, eye gaze and camera angle have been considered particularly important in television announcing. Tankard(1971) has attempted to determine the effect of eye contact on judgements of the announcer. In reviewing the area, he points out that there is no research which indicates effects of this variable on either content learning or attitude change. His own research shows however, that the downward glance is judged more negatively, and that direct eye gaze seems more dominant. Concluding, he states that some aspects of the viewers' source image may in fact be influenced by eye contact, even if attitudes are not. Tiemans (1970) found mixed evidence in an investigation of the effects of camera angle on communicator credibility. Although there were some effects on source judgements, these depended on both the judgement dimensions and a combination of photogenic factors for each source.

The effects of camera angle (high/low) upon the receivers' judgements of the source have been demonstrated by Mandell and Shaw(1973). It was the activity and potency dimensions of judgement that showed the greatest effects in a brief newscast stimulus.

In summary, it may be stated that the effects of eye gaze and camera angle will again emphasize the authority of the newsreader more than of the interviewees.

In his investigation of tight-shot coverage of political figures in the news, Frank(1973) found a strong correlation between presentational style (including tightshot coverage) in the news and the expressed preference

for the personality. In the light of the preceding research on social judgement and visual expressive information, his attention to film coverage in the news is justified in terms of the effects of presentational style on judgements about the source. In combination with the training of the newsmen, such factors may help to explain not only the credibility of television news, but also predict differences in the persuasive impact of statements made by different roles or persona in the newscast.

Bimodal Considerations

Having discussed the transmission of information about the communication act in different channels, the question remains as to whether the addition of the visual channel has in fact increased the information available to the receiver enough to explain the general rise in the credibility of the news. The effects of visualization of the news will hinge on the relative impact of indexical information in the different modalities. For contextual information, the visual channel was seen to provide sufficient information to distinguish the three roles in the news cast-newsreader, reporter, and interviewee. In addition to differentiating these roles the context seemed to emphasize specific features of those roles that might influence credibility judgements: authority for the newsreader, access for the reporter, and involvement for the interviewee.

The relative effects of the audio and visual modalities for expressive information may be harder to assess. Argyle et al(1969) Argyle et al(1971), in research directed towards this question, have compared the relative effectiveness of content with visual and auditory non-verbal cues, by transmitting them separately in inconsistent messages. The effects of these cues on the superior/inferior, submissive/dominant, and hostile/friendly evaluations of the source were measured. They report that "in those conditions where the verbal and non-verbal cues were clearly discrepant.... subjects tended to give a heavier weighting to the non-verbal cues". Even when the verbal cues were more heavily weighted they found that the proportionate influence of the non-verbal channels was greater. Such research tends to indicate that in fact the indexical information in the newscast may play an important part, a part even greater than the content, in determining the influence of the presenter sequence. Cook(1971), however, has cautioned that the non-verbals may play an important role in certain

kinds of judgements but not in others, and Gaskell(1974) has provided some evidence to support the notion that the relative importance of the modalities is related to both the specific dimensions of judgement and the 'implicit personality theories' (ie. source images) that receivers have concerning those sources. Hart and Brown(1974) in conclusion to two studies which investigate the relative influences of vocal and content aspects of speech, have also pointed out the dimension-specificity of the source judgement effects. However, it must be noted that both audio and visual aspects of the presentational style of the news consistently influences different judgements for newsreader and interviewee.

In a comparison of the relative effects of the visual, vocal and content dimensions varied separately in the impression formation process, Burns and Beier(1973) have assessed their relative impact on accuracy of judgements about feeling states. They found that both audial and visual information contribute to the judgements, but again vary in the amount of information they contribute to particular items. As they say "some items are more determined by visual modes, while others (and fewer) are significantly influenced by the audial mode". Overall, however, for the judgements of feeling states, the order of importance for information is visual, then vocal, then content. Although the evidence remains scanty, the importance of the non-verbals in judgements about sources cannot be overlooked. However, the relative importance of visual and vocal cues are specific to the dimensions of judgement that are being made, and the specific role-prescribed source image that is applied. It is therefore thought that it is through a presentational style which accentuates different visual cues for the varied presenters, that visualization of the news emphasizes different components of judgement for the sources in the news.

This visual style controls and accentuates that information which leads to judgements of the authority and objectivity of the newsreader. On the other hand, it emphasizes information that may influence the perception of emotionality of the interviewee, hence encouraging judgements on both the attractiveness and involvement dimensions of source credibility.

CHAPTER SIX

INFORMATION PROCESSING AND THE ACTION VISUALS SEQUENCE

Section 6.1:

Visual Information Processing and Attitude Change

In the previous chapter it was suggested that the 'presentational style' of the news story has important consequences for the processing of information, and possibly for attitude change. In this chapter, the information transmitted in the 'action visuals' sequence will be assessed in terms of the impact on the viewers' opinions of the news story. It is the action visuals sequence which is the producers' most prized feature in the news programme; primarily because it involves both commentary and visualization of the event. However, the consequences of visually transmitting information about the news story is poorly understood. The producers would argue that it merely makes the news more immediate for the viewer - it illustrates the event and makes the news more interesting. However, the possibility that 'visualizing' the news has further implications for the change of opinions about the news event must also be considered; particularly in the light of the content analysis which showed selective coverage of particular types of event with this format. A further feature of this presentational style accentuates the possibility that the effects of this format may go beyond the mere illustrating of the event. The content analysis also demonstrated that the orientation of the visuals was frequently different from that of the commentary; each can convey an entirely different impression of the event. For these reasons it is important to consider the implications of conveying this visual information in the coverage of a news story.

The task mentioned above demands a theory for relating the processing of visual information to opinion change. However, in the literature no clear distinction has been made between information processing and attitude formation and change. However, several criticisms of a solely attitudinal approach to communications research have been made. Bettman et al (1975) criticise the attitude change approach to media studies because it "avoids other aspects of the information processing question". These authors base their criticism on several factors. Firstly,

as they point out, this approach does not examine the processes that intervene between stimulus input, and attitudes as output. Secondly, they argue, that attitudes as the dependent measure are too far removed from specific elements constituting messages, and hence do not allow the analyst to distinguish which aspects of the message effect which components of attitude. Arguing along similar lines, Mendelshon (1973) explains the need for a clearer definition of what is being studied in media effects research. A problem, it may be thought, has been the dependence upon the operationalization of attitude change as the sole and major dependent variable for communication research. This leads us to consider two approaches to information processing.

The first approach uses the general notion of information ¹ as being 'imparted knowledge'. Fishbien(1967) following this definition distinguishes between the effect of communication upon the cognitive (belief), and cognitive-affective (attitude) components of attitudinal systems. Clark and Kline(1974) have argued for the relevance of such an approach to media studies, pointing out that the change in the belief is a more common result in mass media research, than is the demonstration of attitude change. This may be illustrated by Blumler and McQuail's (1968) study of political attitudes, who discovered that the influence of television was greatest upon the 'knowledge about political issues' rather than upon attitudes. Learning, or information gain, is posited as the main effect of media systems in the usage, and is characterized by a change in the structure of cognitions, or the creating of new associational linkages between belief components independantly of a change in affect. The implications for news broadcasting of this would be that the effects of the news is upon understanding rather than attitude change.

For research in news broadcasting, this emphasis has resulted in the consideration of aspects of information processing, (belief components), such as the retention of news items. As Gerbner(1972) states "it is the content of the memories recalled for the purposes of recognition of items in current messages from the outside world which

1. The Shorter Oxford Dictionary, pp.1003

often determines which messages will be recognized and transmitted... and which other messages will be neglected or rejected". Retention processes are considered as a fundamental element in the processing of any information. This includes a concern with both what information is deposited in storage and its subsequent effects on the processing of further information. McLuhan(1964), for example, has suggested that, as new items are low in information, they invoke past memories for completion and elaboration whilst they are being processed. This is particularly important when it is taken into consideration that expectational sets for news stories have already been established in audiences, frequently by anticipatory news reporting (Halloran et al 1970). In accord with this position, and taking an information processing approach to the effects of news viewing, Findahl and Hoijer(1972) have demonstrated that errors and distortions in news viewing arise from the 'filling out' or adding to the meaning of the message, and not just in terms of the information given in the story. In fact the majority of subjects misconstrued or failed to perceive and retain most news items. These errors varied with the subject of the story, and occurred especially in an item about a demonstration. For this item an exceedingly high degree of distortion and error occurred, with a very low retention rate. Furthermore, this 'filling out' phenomena was accentuated when no cause or explanation of the event was given.

Additionally, it may be argued that not only the previously stored information pertaining to the item, but the nature of the content and the format of its presentation as a news story are important determinants of information processing. In another study Findahl and Hoijer(1973) demonstrated that different aspects of the news story may be retained differentially. 'Location' and 'person' related information, were reported as being best retained, and improved with repetition. Repetition, especially when it stresses causal factors (related to the interpretive framework of the story) can improve the overall retention of all aspects of the news story. Booth(1970) using recall of items, also found that frequency of an item, and layout factors were important in determining the recall of news stories as tested over a variety of media.

The second approach to information processing was derived from an systems engineering formulation of information devised by Shannon and

Weaver(1949), and complemented by a field of research into verbal learning and human perception. Work under this definition of information processing has emphasized the components of, and structures for the reception and processing of information in the human system, which are logically prior to attitude change. These factors include attention, encoding, selection, storage and retrieval mechanisms which are thought to be operative in various stages in the processing of messages. An example of how important such processes might be in explaining attitudinal phenomena was suggested by Hovland and Weiss(1954) in their study of attitude change. They proposed that differential retention functions for source as opposed to content information might explain their attitude change 'sleeper effects'. However, there are few studies concerning attitude change which use, or control for selection and retention factors. Most of the work done on selection processes in the attitude literature, is related to the 'information seeking' aspects of information exposure (McGuire 1968) rather than the actual selection or retention in the processing of information, with regards to its influence on attitudes. Hence it seems there is a need to explore the possible relationship between these processes and the manner in which different messages influence attitudes.

The process orientation of information theory may help the above mentioned task. Miller (1967) has pointed out that information processes can be described independently of the content or specific codification of the information and hence can be discussed in terms of the structure of the system. Reiterating this, Garner (1962) expands upon this implication of the information theory approach when he states that "problems of signification...form a large class of psychological problem over and above that of general structure". As a consequence of this approach, unfortunately, much of the research, although devoted to perception and storage mechanisms, has been of little use to the students of communication phenomena due mostly to its utilization of trivial or meaningless contents. Moreover, since processing is assumed to be similar over different contents, the research has focused on lexically coded material almost to the exclusion of other forms of communication. This has to be viewed as a major limitation in this field of enquiry, and has resulted in what Gross(1973) calls the linguistic fallacy - that all thought takes place through the use of linguistic symbolic processes.

As Norman(1969) states "there is good reason to believe that the frequent finding of auditory encoding represents more a basic property of linguistic analysis than of memory itself". In television news, two channels of information are being transmitted in terms of the combinations of code and modality (ie. audio-linguistic and visual-imagistic) simultaneously, and it remains to be determined whether the different codes are structurally differentiated in processing. If they are not differentiated, then the mechanisms for verbal contents are adequate to analyse the impact of the visuals on opinions; if they are differentiated, then the relationship between the two types of processing deserves attention.

With regard to selectivity in the reception processes, the minor impact of the information media on attitudes (Klapper 1961) has been considered to be due to content related selectivity in the reception process. However, the differential retention of news contents were shown earlier to be due to both content and format related factors. Selection during processing may be thought to be particularly important in news viewing for explaining the retention results, considering that a large percentage of the audience are choosing the news programme in terms of the newsreader's personality, or the other programming on the network. Furthermore, since the contents of news differs so little in any country, differential effects of news on retention of items or opinion change could only be explained by selective processing, and not selective exposure. If, As Cherry (1957) has pointed out "information acts as a logical instruction to select", then the question we must pose concerns the nature of selection that takes place in news viewing.

Unfortunately, as Treisman(1969) has pointed out, selection is a difficult process to isolate at the various stages in the processing of information. Selection has generally been viewed as an uniform activity even though it may occur during perceptual input (attention), or at the stage of coding or processing the information, or indeed retention. However, the general notion of selection - that the viewer is operating on information available in a systematic way such as to reduce the throughput to the higher levels of the cognitive system - must remain an important hypothesis in terms of explaining the attitudinal phenomena that result from news viewing. In particular, the notion that selection is related to

the bimodal separation of information of the television news transmission will also be considered in this dissertation.

Hence, three questions may be posed with regard to the nature of the relationship between the bimodal information processes and processing of news information:

- 1) Is information in fact processed separately in the two channels?
If it is when and how is it integrated?
- 2) How are the selective mechanisms that are at work related to the simultaneous processing of audio and visual information?
- 3) How are those information processes through which receivers assimilate information related to attitude change phenomena, retention and credibility?

The importance of the visual information processes in the human system has only recently been stressed in psychology (Segal 1971). Previously emphasis has been placed on linguistic contents in both information processing and retention research. However, in the study of the action visual sequences of news broadcasting, the importance of the imagistic sequences requires an exploratory emphasis on the visual aspect of information processes.

Section 6.2:
Bimodal Information Processing

It is difficult to apply much of the research results from the field of bimodal information processing directly to the bimodal news-viewing situation. In the first place, there is much variation both in the way information processes have been operationalized and the methods used for measurement. This makes direct comparison of studies difficult. Secondly, as Treisman(1969) has pointed out, differences in experimental conditions, instructions and testing procedures, make different demands on the subject, setting varied expectations for performance. This may lead to the adoption of specific strategies for processing information in different situations. However, we can briefly examine these studies for the principles offered.

A Visual Channel

Although there have been adequate early demonstrations of 'visual memory', and perceptual information processing capacities in learning (Haber 1970), the relationship of such facilities to overall cognitive activity has received little attention². Much of the early work on the visual modality was focused on the visual perceptual system, ignoring the relationship of visual information to higher levels of processing and cognition. The limitation of empirical methodology to the verbal report or the simple behavioural response helped contribute to the belief that all thought was essentially linguistic. This was also true of attitude research, which tended to use the proposition or verbal statement as its key method for measurement. Although visual imagery has been considered to be an important component of emotive thought (Horowitz 1970) and therefore used as a basis for personality measures such as the TAT and Rorschach (Murstein 1963), a parallel notion of an imagistic component in the attitudinal system is rare. Yet, if visual information processing can be demonstrated to be systematically related to attitude phenomena, over and above what can be explained in terms of linguistic information processing, a re-evaluation of the effects of television news broadcasting would be in order. Such a body of literature is beginning to point in this direction.

Segal(1971) has examined the auditory and visual modalities in relationship to the detection of signals, using a separate distraction

2. It may be more than just a passing coincidence as Holt(1972) suggests, that research in this direction follows on the heels of a radical increase in the amount of information transmitted visually as a result of the growing use of the television technology in our culture.

technique for each. He finds that in terms of signal detection, the effects of distraction was modality specific; it did not generalize to the whole attention process illustrating a degree of early separate processing. Additionally, he finds evidence that 'images' equivocate between being perceived and assimilated into a dominant expectation about the nature of the perceptual event, and being forced to accommodate to the perceptual event itself. His work suggests not only separate processing channels, but also differential expectations operating in the audio and visual modalities. Dornbush (1968) using a bisensory shadowing technique, and Margrain (1967) utilizing selected recall with modality specific interference, have demonstrated separate storage processes which are specific to modality, by presenting different lexical stimuli to both modalities and testing retention. Margrain (1967) found auditory retention superior to visual for her numeric displays. In addition she found indications that for longer term storage her visual information was being verbally encoded. This has been the general result in much of verbal learning studies of visually presented lexical material and is generally known as a recoding hypothesis (Norman 1970). However, Sheehan (1972) has argued that the difference between recognition and recall tasks as tests of visual memory processes, is the degree to which recall demands a linguistic recoding of the visual information. As such he urges that recognition, rather than recall is a more appropriate measure of purely visual storage. As the recall task necessitates the translation of visual-to-linguistic codes for successful accomplishment, this may also be true of Margrain's written-to-visual task.

Parallel Processing

A different interpretation may be rendered to such studies however if, as Sheehan argues, the different experimental conditions reveal what the information processing system can do - its limits in certain situations - rather than its physical structures, or strategies that can be assumed to be normally in use in every day information processing. Certainly the fact that subjects can translate to and from between images and verbal code does not mean, that under normal circumstances they are doing this. In keeping with such an interpretation Sheehan (1972) has performed several experiments illustrating how different

instructions to the subject concerning the recall of imagery and its performance expectations, can effect retention. Moreover, there is no reason to assume that information once translated to linguistic code, is not still active in parallel visual processing channel as well.

With regard to the decoding process, Treisman(1969) postulates that different dimensions of a signal are decoded by separate analyzer units, although various levels of analyzing the stimulus may be carried out simultaneously. Based mainly on studies of information processing of lexical material, her model posits three types of relationship between such processing analyzer units. A sequential process is similar to a series circuit and entails a linear sequence between analyzers, although an output of the first analyzer is not necessary for the input of the second. A parallel processing unit would simultaneously process either separate or overlapping components of the message code. The hierarchical sequence requires the output of other processing units in order to accomplish further processing, entailing levels of organization in the processor. Fig.6.1 illustrates these three different types of analyzer unit -

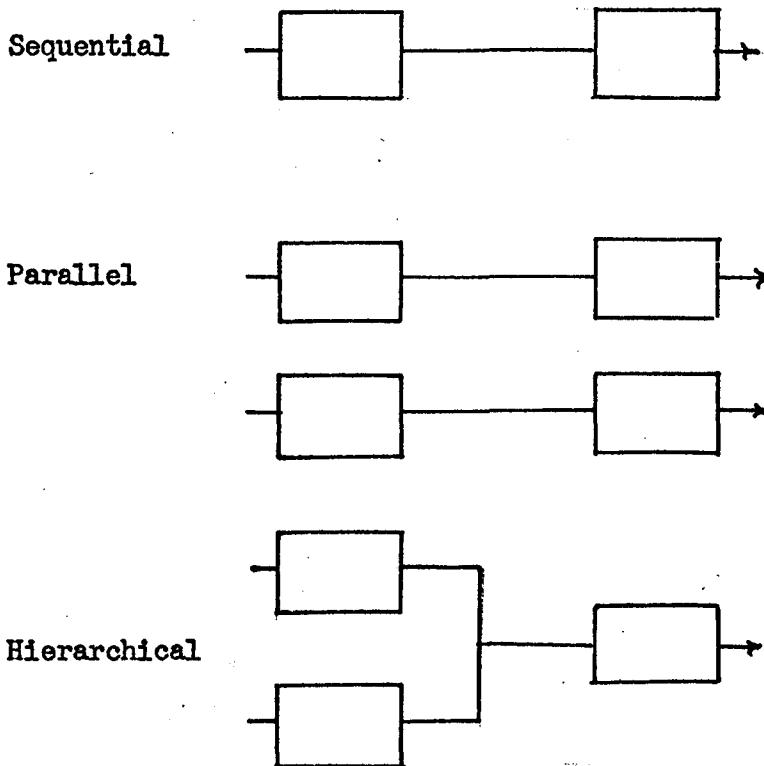


Fig. 6.1 Visual Depiction of Analyzer Units

Using this theoretical basis, Treisman (1969) explains why in some cases the bimodal presentation improves performance. She states:

"While two inputs to the same modality must share the same analyzer throughout, the two inputs to different modalities would be at least partly analyzed by independent systems".

Her experiment shows that in a divided attention task, presentation of the stimuli in different modalities can improve performance, over dual presentation in a single modality.

The application of such a model to the situation in which lexical material is presented in the audio modality and imagistic material to the visual modality implies improvement due to parallel processing of different but related dimensions of messages - the less overlap in the decoding process, the greater the efficiency in the processing capacity of a bimodal unit. Paivio (1971) has explored this notion in terms of what he calls trace redundancy hypothesis. He argues that for the retention of picture/word pairs, separate encoding in two separate channels increases the likelihood of retention and hence a correct retention response. On the other hand Norman's (1969) model of verbal memory for visually presented material, which has received general support in the verbal literature, postulates that after an initial separate processing in the visual modality for feature decoding, the visual information must go through a translation into the auditory encoded channel by means of a naming process, before further processing for meaning and long term storage can take place.

Haber (1970) not only demonstrates extensive 'pictoral-visual' memory storage, but reports data that indicates that representation in pictoral memory occurs without a naming or labelling process, when tested with a recognition discrimination task. This effect persists even when there is verbal interference. He also argues that since pictures are not stored like words, the recall task entails a recoding into words which explains the effects of linguistic interference in other kinds of memory tests. Reasoning along similar lines Rowhanda (1971) explains the loss of efficiency in the visual channel as being due to a 'bottleneck'

3. Treisman, A. Strategies and Models of Selective Attention
Psychology Review, 1969, 76 pg 289

in the processing of visually coded information when output demands the shunting of information through a linguistic processing channel, thought to be based in the auditory perceptual channel. Furthermore, Nelson and Brook (1973) have demonstrated that phonetic similarity may inhibit paired associate learning of words. However, in their study there was no effect of phonetic similarity or dissimilarity on the learning of picture pairs; such results would suggest that pictoral encoding and retention are functionally independent of verbal labelling.

Other research also supports this notion of parallel processing. Paivio(1971), Wicker(1970) and Gehring et al(1976) present a number of studies in which pictures are superior to words in terms of retention. Paivio(1971) argues that this indicates that a double memory trace is laid down; one in the visually coded memory and one which has been shunted through the translation and labelling process. Labelling, he points out, may be assumed to frequently happen automatically in parallel with visual processing, and to be enhanced by rehearsal instructions. However, Cohen(1976) reports that rehearsal has little effect on image retention. Interference may be specific to the recall task as illustrated in a study by Levie and Levie(1975) who used an experimental situation in which subjects were expected to learn a group of words and pictures with a verbal interference task during the presentation of the stimuli. The results showed a marked decrease in the performance in word recognition, but not picture recognition. When a recall task was used however, both pictoral and verbal memory showed interference effects. Levie and Levie suggest that the nature of the expectations that the subject has with regard to what must be done with the information may determine whether single channel or dual channel processing occurs.

Parallel Codes

Distinctions in the types of visual information processing activities that can take place have been made by Richardson(1969) and by Holt(1972). Although both admit to the tentativeness of their schemes, each has argued that the most important distinction is that between words (lexical material) and pictures (images) in their codification of meaning. As Haber(1971) has suggested, these represent both

differentiated code and processing systems. Important to this parallel processing argument is not only separate processes for pattern recognition and image retention, but more importantly separation in the codification and extraction of 'meaning' from these messages. Treisman(1963), Gregg (1974), Simon(1972), Bower(1972) have suggested the importance of meaningful encoding in bimodal selection. Levy and Craik(1975) have investigated the semantic features of verbal stimuli in a bimodal retention experiment. They argue that, as the meaningfulness of the stimulus increases, the semantic properties increase in importance for retention. They find that for short-term storage, interference with both acoustical and semantic dimensions of encoding were related to recall. However, in delayed recall, only the semantic dimension suffered interference effects.

This result is typical of experiments which use lexical material. In such studies meaning is found to be an important feature in retention. If separate coding also exists for imagistic processing, then meaning should also effect pictoral retention. This has been demonstrated in a study by Barret(1976) in which he found that pictures were not only retained better in long term storage, but that this visual retention interacted with the subjects evaluations of the concepts that were remembered. Better liked concepts were retained better visually.

Other studies have also explored the encoding of meaningful visual material. Tversky(1969) used a combination of non-sense words and facial pictures to investigate bi-codal effects on recognition memory, within the visual modality. She argues that although most studies have examined lexically encoded memory, for combinations of visual and audio channels, other forms of encoding are also possible. Using a reaction time in a code comparison task as her measure, her results show that depending upon which code comparison stimuli is expected, the primary stimulus can be demonstrated to be translated from either pictoral-to-lexical, or from lexical-to-pictoral storage. This result supports the notion of 'translation' rather than recode processes between modalities, with a complete and independent form of separate visual encoding. In another study, Tversky(1975) demonstrated that reaction times for simultaneously presented pictures and sentences

were greater than for sequentially compared stimuli, which she attributes again to the translation process between codes. Under the simultaneous condition, semantic-verbal variations in the sentence were seen to increase comparison time, which is illustrative of the importance of the verbal encoding of the pictoral stimulus. Additionally (Paivio 1971) has shown that thematic organization of the material is more important in the retention of concrete word (image producing) memory, than it is for abstract word stimuli.

Other experiments in the role of visual imagery as a mnemonic device have revealed interconnections between the imagistic and linguistic information process. Rankin (1963) found that instructions to image improved a shape reproduction recall task, but decreased serial order recall accuracy. Paivio(1970) has demonstrated the superiority of both visual images and concrete words over abstract words as memory pegs in paired associate learning. Additionally, Bower(1970) found that memory was further enhanced when the images for the paired-associate words interact, rather than occur in a separate imaginal space. This effects holds for both recall and recognition.

These interconnections between codes may support a translation hypothesis. Paivio(1971) has demonstrated that pictures are superior to concrete and abstract words for recall at a slow presentation rate (which allows for linguistic recoding), but when the presentation rate is too fast for recoding the relationship does not hold. Similarly, he attributes the better retention rates for concrete as opposed to abstract words to the greater ease of word to image translations. Bower(1970) demonstrates that the vividness of the imagery as rated by the subject is in a direct relationship to verbal retention.

As opposed to a translation model these interconnections may suggest that an underlying interpretive system, which processes and codes information from both linguistic and perceptual information are handled in a single conceptual-propositional system, which underlies both channels at a higher level of processing. This position offers an alternative way of viewing the translation process; however, differences in prediction implied by such a model have not been fully explored (Plylyshyn 1973).

Visual Processing in related fields of research

Although this experimental literature is suggestive to a high degree, of limited parallel processing in distinct visually and linguistically coded channels, research in related fields have suggested that separate visually coded information may also be important to higher levels of cognitive functioning. Arnheim(1969), arguing from research done in the field of psychology of art, maintains that in fact the visual modality processing channel is the basis of all thought and conceptualization. Words, to him merely tag the process by which the human species deals with its environment - essentially through perception - which he sees as the foundation of the cognitive system. He reviews evidence that shows fairly extensive abilities at visual abstraction in human thought, which he believes illustrates some of the potential of 'visual thinking'. A similar argument put forward by Bugelski(1971) entails that the visual processing channel is capable of complex active transformations with category differentiation in retention. Isenhour(1975) has reviewed literature related to experiments in film 'shot meanings', in which variation in the order of shots or context, changes the interpretive meaning of the film strip. This suggests, as many film theorists have argued, that the language of film reflects a rich and complex interpretive system based on sequences of visual images.

Gross(1973) has summarized the general trends in developmental research as related to television. He concludes that at least two systems of symbolic thought are used in the processing of information by the child. However, in his view, these are not strictly identified with specific sensory systems; partial translation between modes can and does occur, but the extent of this can vary.

Physiological research has provided a basis for such speculations concerning parallel processing; in particular the differentiation of visual and linguistic processes at higher levels of cognition. Physiologically, there seems to be a topological differentiation of function with regard to information processes in the cortex (Thompson 1967). This differentiation is related to certain kinds of conceptual and perceptual task performance(Sperry 1961).

Ornstein(1972) has suggested that this 'split brain' phenomena can be traced not only in experimental tests with epileptics and binocular presentation, but through a wide range of cross-cultural phenomena recorded in language and myth. The implications are a physiological basis for parallel processing.

Psychoanalytic theory has long ago accepted the importance of image processes in thought, focusing on its expression through dreams and fantasies. Horowitz(1970) has argued that not only is visual imagery in thinking common, but at a more primitive level of thought which is closely connected to the emotive aspects of the psyche. This thought is shared by a number of film-makers and theorists (Gessner 1968, Eisenstein 1957, Wollen 1969) who argue that verbal thinking is a secondary process and that the underlying levels of thought are imagistic and closely related to the emotions. This notion is shared by Horowitz(1970) who offers a parallel processing model which includes a latent image storage. Those images which are difficult to translate immediately into language, continue to actively press for resolution. Using a film, and varying the degree of emotive-disturbing features of the images, he discovered that the more disturbing images do remain in a latent storage. These images come to effect both imaging (in dreams and fantasies) and other cognitive processes, as they press for assimilation into the cognitive system. This finding is in accord with the use of visual projective techniques in clinical psychology to elicit deeper levels of psychological processes (Murstein 1963). The implications of this line of argument is not only the possibility of high level parallel processing, but differential effects of separately processed 'linguistic' and 'imagistic' information on the cognitive system and attitude. Indeed, it is possible that the success of advertising in changing attitudes and consumption patterns for instance, is related to the predominant use of imagery in advertising messages (Leiss and Kline 1976) which come to influence the affective components of attitudes towards commodities.

The possibility of separate processing channels has also been taken up in the field of developmental psychology, in relation to the role that language processes play in the development of thought in the child. Although most researchers agree that an early 'iconic' stage of

development occurs, during which the child's basic conceptual schemata are related to visual information processing; the actual degree to which the linguistic processes come to modify and dominate in conceptual development is disputed. Babska(1970) has argued that the identity concept remains essentially visual, and Inhelder(1970) has illustrated the visual nature of the conservation concept. Similarly Carroll(1964) argues that the object concept is visual; entailing a category differentiation based on the perception of objects not changing. Wohlwill(1970). has characterized this a the Piagetian approach in which "perception and thinking (linguistic) represent two sharply differentiated processes which display certain structural similarities but even more differences". In developmental terms, such an approach is the equivalent of a parallel processing model; the acquisition of lexical symbolic competence only adds a separate channel in which information may be processed. On the other hand, Bruner(1956) sees language processes as 'taking over' the conceptual structures and becoming the ultimate means by which the child handles information, by mediating between perception and higher cognitive structures. As he states: "perception involves an act of categorization.....in no sense different from other kinds of categorical inferences.....there is no reason to believe that laws governing inferences are discontinuous as one moves from perceptual to more conceptual activities". Language is for Bruner the determining factor in this single processing channel.

From the socio-linguistic point of view, Cicourel(1973) has addressed this general problem of cross modal equivalence in information processing. He argues that the act of translation between mode entails an ability simultaneously to attend and process information channels separately, and selectively to attenuate amongst them for meaning. However, normative cultural processes, he argues, underly the interpretive procedures for any channel, even though the underlying semantic principles may be different. Ultimately, for him the differences between modal channels is due to differences in surface structure, and translations between the modes at the surface structure are only possible because of commonalities in a deeper structure of thought.

Parallel Processing and Channel Selection

Following from the notion of separate channels for the processing and storage of imagistic and linguistic information are the related aspects of channel capacity and perceptual selection mechanisms. While watching television news, the viewer would be processing a considerable amount of information coming through these two channels. However, considering the low general impact of individual news items on attitude and the minimal retention of various items from the programme, it may be considered likely that some selection in the processing of either channel may occur as the viewer acts as a receiver of news information. The question that may be raised is whether receivers concentrate their attention on either the sound track and its linguistic message, or on the visuals, or divide attention between the two? If attention is divided what are the implications for the processing of redundant and non-redundant information on attitudes? And finally what is the nature of the selection mechanism - for modality and meaning - that filters this information.

Attention and channel capacity phenomena have received a high degree of concern in the psychological literature. Broadbent's (1958) early model, derived from work in information theory and perception, applied these notions to the problem of attentional mechanisms. He regarded the Central Nervous System (CNS) as a limited capacity single information processing channel. Hence, selection would take place through a filter system before the information continued through the CNS for higher processing. Although a short term storage for either acoustical or visual information might precede the selection mechanism, this store was thought to be based on the perceptual properties of the channel rather than the meaningful aspects of the message. He reports a number of studies which demonstrate that for lexical bichannel stimuli, selection is based on the filtering of one of the input channels, determined by the physical aspects of the channel, or in the bisensory situation, by modality.

Offering an alternative explanation of related experimental findings, Garner (1962) based his theory on the dimensionality of the stimulus. Increasing the dimensionality determined by the attributes of

the stimulus through which it was transmitted (spatial location, loudness) might either impair or improve information transmission depending on the role of that dimension in the selection process. Treisman(1969) further developed this theory in terms of separate analyzer systems for different dimensions of the stimulus. She argues that in a bimodal stimulus it is likely that separate analyzers for similar dimensions of the same message can enhance the efficiency of the processing, in the sense of divided attention for parallel processing. Hsia(1969) has pointed out that in physiological terms that the channel capacity of either the auditory or visual modalities exceeds that of the CNS. Either one is sufficient to overload its capacity. He argues that when messages are highly redundant, or the information 'bit rate' is slight, then the CNS acting as a parallel processing unit, could increase efficiency. However, when the amount of information is sufficient to saturate the CNS channel, a sequential or unitary processing strategy would be more efficient. His experiments have demonstrated that for redundant bisensory information, the combined channels are more efficient than a single input, whereas for non-redundant information this does not hold. Menne and Menne(1972) have achieved the same result for the learning of linguistic messages from a film.

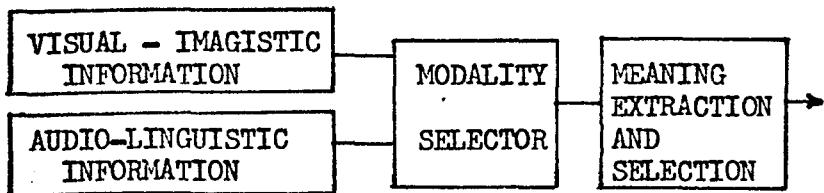
The preceding results were based on linguistically coded information. However, the efficiency of an information channel is dependent upon the nature of the coding used in that channel (Miller 1967, Garner 1962). A code is the means by which the receiver extracts meaning from the message. In the presentation of linguistic material to both channels it is plausible that ultimately the same set of analyzers would be used to process information at the level of syntax and meaning based on the linguistic code. Most of the research on attention processes have used linguistic material, and the results reflect this fact even for bi-modal presentation; attenuation and filtering occur along the physical dimensions of the stimuli (voice, spatial location) but not along semantic dimensions. This implies a single meaningful code system. Researchers such as Travers(1970) and Findahl et al (1969) assume that even when images are presented visually, this visual information must be recoded into linguistic terms before any further processing takes place. Such further processing is what Findahl et al(1969) call 'active processing'. Active processing

includes the application of previously stored information (attitudes) to the message, or selection in retention along the dimensions of meaning. If this is the case then channel selection due to modality must precede active processing. Whatever selection takes place in terms of the semantic aspects of the message would occur independently of modality.

On the other hand, for the bimodal presentation of combined imagistic and linguistic messages, if the visual information is being processed and coded independently, then the possibility remains that 'active processing' might also occur separately in different sets of analyzers. This would entail increased processing efficiency for such bimodal messages. Furthermore, if high level active processing continues separately in the visual channel, then attenuation of one modality in terms of the meaningful aspects of the message might occur. Treisman (1963) has found that even for linguistic material, under some conditions, divided attention in terms of the meaning of the message can occur. For imagistic and lexical material in different modalities using different analyzer systems, this is more likely still.

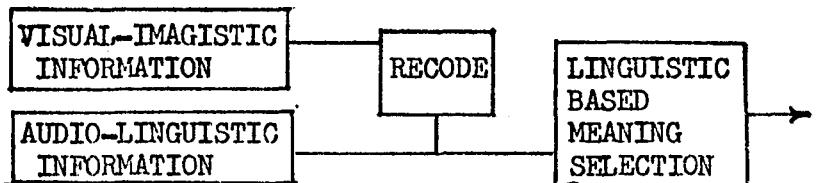
The discussion of selectivity so far has posited three models for selection in bimodal information transmission. Model 1, following Broadbent, suggests that selection occurs in terms of channels defined by physical properties of the perceptual system. The receiver would be predicted to attend to information in either the auditory or the visual channels, and to filter out and fail to process the other channel. Whatever perceptual channel was selected it would then be processed for meaning. This model can be represented as follows:

Model 1:



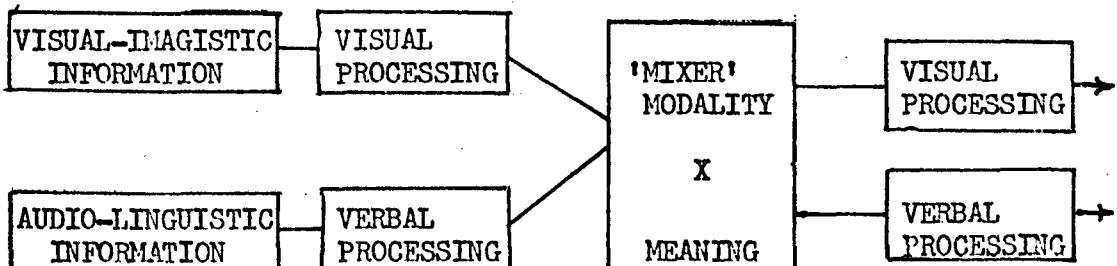
Model 2, following from the recoding hypothesis, postulates that parallel processing occurs up to the point at which imagistic information undergoes a naming process. After this translation into linguistic symbols, active processing for meaning would occur irrespective of the modality of presentation.

Model 2:



Model 3, suggested by an extension of Treisman's analyzer units theory, suggests that parallel processing occurs in such a way as to include separate meaningful decoding and active processing. Attenuation of a modal channel in divided attention, could take place in terms of the meaningful aspects, or content of the message as well as modality. Division of attention might also be a strategy, given this separate processing, and depending on the degree of redundancy of the message, might lead to an improvement of the transmission, or distraction from the more important message.

Model 3:



It should be remembered that these models do not necessarily reflect the 'hardware' of the information processing system, but rather the 'software' - the strategies of attention that receivers may use in

different bimodal processing situations. It remains to be determined which is the more likely strategy to be used in the viewing of television news, or whether there are individual differences. Each of these models has received some empirical support under different processing situations.

In terms of modal dominance, McLuhan(1964) has speculated that a cultural bias, in terms of an imbalance in the sense ratios for the processing of visual and oral information has come about through television viewing. This bias is gradually shifting receivers to a preference for imagistic information. Horowitz(1970) and Paivio(1971) have both argued that modal dominance reflects the characteristics of the cognitive bias of the receiver, in terms of either linguistic or imagistic thinking as an individual trait. For example, Richardson (1969) found in several studies, that individual differences in imaging capacity were related to retention. This preference for modality seems to extend also to the researchers. Linguistic based research, has stressed the channel dominance of the language process, and the auditory modality whereas, art and film theorists have stressed the visual modality. However, a general prediction can also be made under a dominance hypothesis. If a particular modality is more favoured in information processing it would be expected that information transmitted in that channel would come to have a greater impact on attitudes, regardless of the content of the message or degree of redundancy in the message.

The Recoding hypothesis is implied by some research into educational television. Trenaman(1967) has argued for example, that even when meaningful visual material is presented, it is the interpretation provided by the sound track, along with the verbalization ability of the receiver that ultimately determines meaning in the watching of television. Travers(1970) arguing essentially the same point, saw the ability to translate the visual material easily into language, as an essential factor for educational television. Findahl et al(1972) have argued that through such translation, the visuals acquire meaning through the expectations generated in the sound track; similar to the way a caption provides meaning to a cartoon picture. In this way, redundant visuals would be merely 'fitted in' to the verbal argument. This is particularly so when the visual stimuli are ambiguous (Segal 1971).

On the other hand, for non-redundant visuals, the picture-to-word translation processes might be more difficult; causing interference in the verbal processing. Anderson(1972), reviewing related findings in the bimodal viewing of educational television and film programmes, points out that for the most part the main message is placed in the audio-linguistic track, and the measures of retention used reflect this input (ie verbal or written recall). Under these conditions, he argues that exciting or interesting visuals may distract attention away from the sound track and reduce the efficiency of the transmission. He concludes that the effects of exciting visual treatment may result in an increase in general attention, and hence reported interest and enjoyment of the programme, whilst reducing retention due to the distraction and interference with verbal processing. For this reason interest and preference are not always good predictors of information gain due to an audio-visual broadcast. Anderson further points out that these predictions are in line with cue summation theory when applied to the bimodal learning situation. This theory predicts that when bimodally redundant information is presented, there will not be an increase in learning. When the information in the visual track is not redundant but is relevant then learning should increase: whereas when it is non-redundant and non-relevant learning will decrease due to interference effects. These are essentially the set of predictions that might be construed from a recode hypothesis.

Dwyer(1970) has considered the bimodal educational presentation when meaningful visual information is present and tested for on a more equal basis. In keeping with the parallel processing model, he argues that added dimensionality in separate channels enhances learning. In particular he points out that more realistic visual information should increase learning. His series of studies demonstrate that although realistic visuals may be distracting if the amount of time for processing the information is insufficient; when using the same material, an instructional method is used which allows the receiver to control the presentation rate, realistic sequences enhanced learning. Trohanis(1975) using a multiple image slide show also found the rate of presentation to be crucial in bimodal learning, indicating a channel capacity limit in the visual modality, beyond which processing is interfered with. Such effects, whilst in keeping with Hsia's(1971)

idea on the limits to processing, do not indicate whether the interference is due to 'bottlenecking at the recoder', or 'distraction effects' due to divided attention.

Probably a more important predicted difference between the 'parallel' and 'recode' models is the question of how the meaningful aspects of the message are selected. As Findahl et al(1969) state, this is the point where stored information and attitudes influence the ongoing processing of news information. If a recode hypothesis is correct, such selection could only take place in terms of the linguistically coded meaningful aspects of the integrated message. However, if parallel processing strategies are employed, then attenuation of a modal channel because of its meaning would be more likely. The viewer would be expected to switch out channels that he doesn't want to see or hear. This switching should entail preferential retention of certain images; whereas for a recode hypothesis there should be no influence of meaning on visual retention.

A difficulty for the 'recode' model, is the method for integrating the information from the different channels after recoding. Fishbein and Hunter(1964) have suggested an 'additive' model for verbal information integration in impression formation, whereas Anderson(1974) has discussed an 'averaging' model. Rosenberg(1968) has suggested the possibility that both models are correct depending on how redundant the information is. The predictions therefore about the effects of recoding inconsistent information are ambiguous.

On the other hand an interesting implication of a parallel processing model is the possibility that information separately processed and stored in different codes might influence attitudes in different ways. Horowitz's(1970) experiments with emotionally charged images is such an example. Further, Vernon(1953) in some early studies of instructional pictures, concluded that realism in the visuals would increase the emotive impact and change attitudes more than the verbal message. Otherwise Illustrative material (graphs, schematics) when structured into the argument, were more effective for cognitive development. Hence it might be speculated that in terms of Fishbein's model of opinions the imagistic information might

have a greater influence on the affective component, whereas linguistic information would have greater influence on beliefs. Seiler(1971) has demonstrated in a study of the effects of audio-visual slide programmes on knowledge, attitude and credibility, that the addition of the visual slides increased the attitude and credibility factors, but not retention of material.

Unfortunately there is little research that indicates which of the processing strategies is adopted in news viewing. Findahl's (1972) study illustrated that the major effects of visuals in a news cast was to increase the retention of the news story. The use of the visuals however influenced not only how much was recalled, but additionally what was recalled. Action visual type stories were more easily recalled, followed by illustrations and pictures. Stories where the studio announcer appeared without visuals were least remembered. Using the experimental technique of combining different visuals with the same sound track, he found that the degree of correspondence of the visuals to the verbals was related to retention of the story. It was felt that degrees of correspondence were reduced as the visuals moved from action visuals of the event, to map, picture of the event, picture of the site to announcer. Additionally, they found that it was those aspects of the news item that were identified by the visuals that were best remembered. In a related study on the influence of different kinds of visuals on newspaper stories, Culbertson(1974) reports that although written accounts get higher 'emotive impact' (sensationalism) ratings by his subjects, there is an influence of visualization on the evaluative-ethical and interest-vitality dimensions of credibility. In another study, Culbertson(1974) has indicated that different levels of iconicity (completeness and realness of the image) have a relationship to the perceived stand of the author (bias) of the article. He suggests that graphics and charts do not have an effect of increasing perceived bias; however, when the subject matter is sensational, then realistic photographs do increase perceived bias. Such research provides some indication that the effects of visuals in a news story may extend to retention and credibility factors.

A further question is whether visuals also influence attitudes. Penn(1971) has demonstrated that changes in the visual presentation itself can influence attitudes. By varying the amounts of motion and the cutting rates of film presentations he noted influences on the potency and activity

dimensions of the semantic differentials of the content. He suggests that this effect might be due to the influence of these variables on attention mechanisms. In a study of news films Meyer(1971) has measured the effects of 'justifying' the violence of the news film, by altering the sound track over a constant visual. He finds that not only does this change of the interpretive structure of the sound track influence the subjects' perceived justification of the presented violence, but it also can increase the number and intensity of shocks that are delivered to stooges, in a subsequent test of aggressive behaviour. Such findings as these suggest that various changes in the kind and organization of the visuals, as well as its relationship to the sound track's description may be important determinants, not only for the retention of the material, but also for its credibility and effects on attitude.

Attitudes and Information Processes

Attitude theory in the past has emphasized selective processes based on the relationship of the content of the message to the functions of the attitude to the receiver. Alternatively, the information approach has seen selection as related to the structural features of the processing unit - bimodality, attention, coding and retention factors. McGuire(1968) in comparing these different approaches has argued that since the information processing capacity of an individual is quite limited, information selectivity in terms of the limits to processing might provide a more fruitful line of research than the strictly defence-avoidance approach. Triandis(1971) also emphasized the promise of the approach for application to selection in attitude phenomena.

The position used in this dissertation hopes that by combining the attitude theory and information processing approaches a more comprehensive way of understanding attitude change phenomena may result. This in turn may lead to a more appropriate explanation of the effects of 'real world' complex stimuli sets such as the news, on the attitudinal processes of the viewer. Such an approach generates different types of research hypotheses concerning the reactions of an individual receiver to a communication which may be tested in experimental situations, by drawing attention to the manipulation of information processing variables in studies of opinion change.

Findahl and Hoijer(1972) favour this type of overall 'information processing' approach for their explanation of the effects of news programmes. They posit both active and passive information processing mechanisms. Passive processing is related to the structure of the information processing channels, whereas active processing is related to the 'expectational sets' and stored information that the receiver brings to bear in the processing of news information. The news they argue, must be assimilated into a system that has already well established cognitive and emotive frameworks related to such events - previously established attitudes and opinions about these real world events. Distortion and filtering of the news story, they see as being related to both of these processes. They argue that not only does information processing reflect the structure of the news event as presented in the story, characterized by the relationship of the visuals and the sound track, but:

"the receiver of the news story also has his personal world view with its own structure of events. The news has to be integrated into this structure".⁴

Unfortunately in their own work they have not controlled for the effects of these attitudinal factors, as they come to interplay with the effects of different dimensions of the news story presentation; rather they infer this from the effects on retention. Although this allows them to conclude that selection takes place, they have not demonstrated the relationship of this selection to the initial attitudinal set.

On the other hand, the way new information is assimilated into an attitudinal structure has been a major concern of attitude research as applied to communication. A general concern within the literature is that the discrepancy between the position presented in the communication and that of the receiver's own attitude toward the object of the communication, is an important determinant of the direction and amount of change (Sherif 1967, Tannenbaum 1968). Variations in predictions from these different theoretical positions of the effects of the communication on attitude change are made with regard to a number of factors; ego involvement of the receiver with the particular issue (salience, centrality, importance), the mode of resolution used by the receiver to deal with discrepant information (debunking, rationalizing, changing

4. Findahl, Olle, and Hoijer, Brigitta. Man as receiver of information Repetitions and reformulations in a news programme: a study in retention and audience perception. The Swedish Broadcasting Corporation Audience and Programme Research Dept. 1972 p.21.

cognitive component), and the particular experimental condition in which 'inconsistency' becomes operationalized (cognition and behaviour between cognitions, cognition and affect, interpersonal liking). Despite these variations, discrepancy of the communication from the receivers' initial attitude emerges as the single most important variable of investigation to be considered in the processing of information and its effects on attitude change.

Singer(1968) has hypothesized that two kinds of consistency mechanisms may be operative in this relationship between the processing of stimulus information and attitude change. One mechanism he speculates organizes and maintains consistency within the established cognitive structure, the other acts as a selective processing variable, filtering and modifying information as it is input. This latter mechanism

"rests on the assumption that when people are confronted with more stimuli than their perceptual and cognitive apparatus can handle, they utilize schemata which selectively give precedence to certain categories".⁵

This type of selection process not only functions in terms of the meaningful aspects of the message, but is also expected to follow the tendency towards the maintenance of consistency in the cognitive system. This entails an interaction between perceptual and consistency mechanisms. Although there is only equivocal evidence for establishing selective exposure as a phenomena of import in communication situations, (Sears 1968, Mills 1968, Katz 1968), there has been little attempt to discover whether some aspects of attitude change phenomena can be explained in terms of selective attenuation of information as it is input into the cognitive system, rather than as 'cognitive-affective' restructuring or 'avoidance of disturbing' information sources.

The selective processing argument becomes significantly intensified in the light of the trends of increasing dominance of TV news as a means of distributing information in our western societies; given the relative homogeneity of content in broadcast news within any given country, selective exposure as a process in television news viewing is a much less likely phenomena, than in newspaper reading. If

5. Singer, Jerome. Consistency as a stimulus processing mechanism
In Abelson, etc. Th. of C.C. p.341

norm reinforcement occurs across populations with divergent initial attitudes by exposure to a standard message field, then selection in processing rather than exposure must occur. It may further be suggested, that in broad terms, selectivity in processing may be a means of resolving the seeming incompatible roles of the media as either 'norm reinforcing' or 'attitude changing'. The effects of the media can only be estimated when it is clearly determined which part of the messages are in fact being processed by the receiver, and related to attitude formation and change. Additionally, such an explanation would render the 'complexity' and the 'inconsistency' hypothesis less antithetical, by pointing out that the seeking of novel or exciting information is possible, without that information necessarily undermining, or even reaching belief system structures in which consistency is maintained. As McGuire suggests in his overview of a series of essays on selective exposure

" My own feeling is that we are left with our initial assumption that the information encoding capacity of the individual is quite limited, so that considerable selectivity necessarily occurs. A study of such selectivity would be a more fruitful field of research but it seems that defensive avoidance is not a very powerful factor in the individual selective strategy. The time has come, I think, to turn to the broader questions of which are, in fact, the tactics of perceptual selectivity, and discontinue the current excessive pre-occupation with this one possible tactic of defensive avoidance".

However, the lack of investigations into the selective processing hypothesis is no doubt due to the methodological difficulties of distinguishing between attitude change, or change in credibility of source, as being due to selective processing of channels rather than due to attitudinal mechanisms themselves. Halloran et al's(1970) study of attitude change resulting from the broadcast coverage of a demonstration provides an example of such theoretical difficulties, although it may be interpreted as generally supporting the notion of perceptual selection. Halloran et al(1970) discovered on free response measures that despite equivalent exposure to the broadcast, students reported seeing demonstrators provoking or attacking police, to a lesser extent than police or neutral viewers. This student group of viewers tended to view the

6. William McGuire, Selective exposure: a summing up. In Abelson, etc. Th. of C.C. p.798.

aggressive acts of the demonstrators as 'hitting back'. These students, however, perceived the police's actions against the demonstrators differently than did the police or neutral viewer groups; the students saw the police as initiating aggression more frequently and responding to it less. This seems to reveal a selective processing 'set' in these groups related to their perceptions of these acts of aggression. In addition, the 'police viewers' saw the newscast as being fair and impartial, whereas the students tended to regard them as neutral or favouring the police. However, such data might equally well be explained in terms of response bias of the respondents, assimilation or contrast effects in attitude change, reduction of inconsistency, as well as in terms of perceptual selectivity in processing.

Possibly selectivity in processing becomes a more likely hypothesis for news viewing when the results of the content analysis is considered. As has been pointed out earlier, a typical situation in the Action Visuals sequences is to have differing emphasis in the audio and visual channels. Under such circumstances it might be expected that either receivers perceive the 'inconsistent message' as such, possibly leading to a reduction in the stories credibility; or, there may be an increasing tendency to select the channel which is least discrepant from the viewer's opinion. In either case, processes of attitude change which could not be predicted from a simple discrepancy hypothesis are involved.

The preceding theoretical issues, provided the general framework for the following investigation, which attempts to clarify some of the implications of bimodal information transmission in action visual news sequences. The bimodal transmission situation provides a means of examining the relationship between these information processing and attitude and credibility factors. Therefore, the following study was undertaken to provide a more detailed experimental analysis of the processing of the Action Visuals sequence by news viewers, particularly aimed at exploring how variations in the modality and consistency of the message influences selectivity, credibility and opinion change factors. Ultimately such research may help to explain how the 'world view' of the news viewer is influenced by the watching of television news.

It was the intention of the experimental design to maximize the interplay of a number of these factors that are thought to be 'at play' in the real news viewing situation, so that the results might throw some light on the effects of news broadcasts: yet to achieve experimental control, the manipulation of variables was necessary to distinguish features of perceptual and attitudinal processes. Of course, ecological validity and theoretical precision are not always able to be maximized together. However, in the experimental situation in which previous experimental work of a highly similar nature is not readily available, some sacrifices have to be made. On the other hand, ecological validity can be improved for the experiment when field research has validated the variables under consideration. In this way, the experiment was designed as a means of refining the analysis of the impact of 'demonstration news' coverage as presented in the Halloran et al (1970) study. In particular, through the use of field survey method, Halloran was forced to infer initial attitude from group membership (police, neutral, student). This manipulation allowed control for the direction of selective phenomena, in relationship to discrepancy; however it lacked the ability to measure the degree of such phenomena in terms of the relationship of the discrepancy of the communication from 'own position'. Similarly this failure to control for initial predisposition is typical of Swedish researches into the processing of news broadcasts (Findahl 1972, Findahl and Hoijer, 1973) so the effects of different formats or stories on retention and distortion were not related to the initial 'set' of the receiver. Although the group differences in reactions to broadcast news are important, ultimately the explanation of differences in effects from the same message system must rest in the correlation of the individual's predisposition to the direction and amount of change.

Although the research into information processing has been suggestive, the application of these principles and models to the more complex stimulus situations such as news have not been made in experimental situations. Furthermore, the information processing approach has not taken sufficient account of content related factors which have suggested the relationship between perceptual selection and

attitudinal fit mechanisms. It was hoped that through an analytic separation and control of these factors simultaneously it might be possible not only to demonstrate the fruitfulness of the synthesis of information processing and attitudinal factors, but also to maintain the applicability of the results to the unique case of news broadcasting in which bimodal separation plays such an important part.

A number of sets of theoretical questions have been posed therefore, which might be helpful in understanding the effects of broadcast news. The first concerns the abilities of the receiver to process information that is presented together in visual and linguistic-auditory channels, and the effects of such modality factors for opinion and credibility change. As was argued in Chapter 2, television's singular advantage over other communication media was its ability at 'visualization' of information. The addition of the visual channel to news broadcasting resulted in an information source that seemed more interesting, and accessible, and involving to the viewer. However, we do not know the effects of this additional channel on actual attitudinal processes and opinion change. Do the visuals enhance the impact of the story over and above that of the verbal channel? Is this an intensification of the impact of the news message; or on the other hand do the visuals distract the attention of the viewer away from the details presented in the verbal message? Indeed, does the processing strategies used by the viewer depend upon the relationship of the content to his own opinions.

A second set of questions may also be raised about the impact of the visual channel on the credibility of the news. As was noted in Chapter 2 the rise of television news' credibility has been a significant cultural trend, as has been the emergence of the news image as factual, complete and an unbiased source of information. In the previous section on the processing of the presenter sequences of the news, the visually presented information about the source was considered an important factor in the credibility of sources in the news, and ultimately to the impact of the news content on opinion change. Likewise, the visual presentation of the event in the action visual sequences, seems to increase the sense of immediacy with regards to the news story, and hence the credibility of the overall presentation by

allowing the viewer to 'see for himself'. One can question whether modality related variations in the presentation of the news bears a relationship to such credibility factors.

The third set of questions are concerned with the relationship between both modality and opinion change factors and the processes of selection. Can it be determined whether the impact of the visual channel differs depending upon the relationship of its content to the attitudes of the receiver? Do receivers use different processing strategies when the information is discrepant, and does discrepancy effect the perceived credibility of the particular news story or the media. The need to control for the 'expectational set' operationalized as opinions about the event are obvious because the effects of combined visual and verbal presentation upon selection, and hence attitude change, can only be analyzed properly in relationship to these predispositions of the receiver.

The final set of questions concerns the viewers' reactions to messages that are themselves 'inconsistent'. As this is a common occurrence in the action visuals sequence, where channel redundancy is low, the viewers' processing strategies for such messages are of interest. Does the ambiguity of the message increase the selectivity in the processing, and if so is this a preference for the least discrepant channel. Or does the processing strategy of the viewer merely average the two channels together, with selection or 'fitting in' occurring after the message has been translated from the visual to verbal code? What are the implications of such processes for opinion and credibility change?

Section 6.3:

Method

The experiment consisted of showing several differently edited versions of a 'BBC type' action visuals news story to small groups of individuals. The subject of the news story was a Trafalgar Square demonstration. The visual sequences were taken from the BBC footage of the Trafalgar Square demonstration of October 1968 and edited into two versions. One version was edited to emphasize a 'pro-police' standpoint, and the other a 'pro-demonstrator' point of view. In the pro-police version specific sequences that emphasized calm, order and restraint amongst the police sides were included: additionally it included any acts of violence that were overtly initiated by demonstrators. In the pro-demonstrator version, the specific pro-police sequences were replaced by those that emphasized calm, restraint and a peaceable demeanor amongst the demonstrators, as well as sequences of violence initiated by police.

The overall style and format of a BBC news story using a chronological visuals format was used in detailing the overall activities of a day long demonstration. Fig. 6.2 shows the shot listings of both versions. The total film was 2.5 minutes in length which included in the pro-police version 6 shots of 1.2 minutes in length which were specifically pro-police. The pro-demonstrator version included 6 pro-demonstrator shots of 1.1 minutes in length. Similarly, two voice over narrations were used with similar pro-police and pro-demonstrator emphasis. The narration detailed the total order of events from the beginning of the march at Trafalgar Square, the splitting of two groups, speeches and violence at Grosvenor Square. The voice-over was read by a trained actor using a 'BBC accent'.

Timing of the narration allowed each 'voice over' to be used with either visuals version. A constant background noise track was used, consisting of crowd noises, walking, cheering and general bustle acquired from the BBC sound library, for each version. The emphasis of the sound track and visuals of the pro-police and pro-demonstrator versions were considered to be approximately equal by three instructors

of film and television at Hornsey College of Art, although the comparison of bias across modality was regarded as difficult. In fact the general perception of the news story, was that although it was biased, the bias did not appear strongly or overtly - no more than a typical news story.

The various combinations of 'voice over' and visuals sequences were used to generate six experimental⁷ conditions as follows:

	Treatment Group					
	01	02	11	22	12	21
Audio Track			pro-demo	pro-demo	pro-pol	pro-pol
Visuals	pro-demo	pro-pol	pro-demo	pro-pol	pro-demo	pro-pol
N of Subjects	10	11	11	15	11	15

Key for Treatments:

1 = pro-demonstration content
2 = pro-police content

left digit = audio channel
right digit = visual channel

This experimental design allowed for different combinations of factors to be tested by using combinations of treatment groups. The effects of 'story bias' were tested by contrasting simultaneously the uni-modal and bi-modal conditions for each story bias (ie. treatments 1, 11 vs 2, 22). The effects of 'modality', (ie. the addition of a consistent sound track to the visuals) were tested by collapsing data across story bias (ie. Treatments 1, 2 vs 11, 22). Such a comparison allowed for the assessment of adding commentary regardless of content. The effects of 'bimodal inconsistency' were tested by contrasting the consistent and inconsistent conditions (ie. Treatments 11, 22 vs 12, 21). Finally, the comparison for the effects of 'visual bias' in the presentations were derived from considering separately those treatments in which different visual versions were used (ie. Treatments 1, 11, 21 vs 2, 22, 12). Ultimately this allowed for the separate testing of these

7.

Auditory only treatment conditions were not included in this research because they would have entailed problems of comparability with the other conditions. Firstly, to cover an equal span of time the commentary would need new material inserted. Secondly, it would be difficult to explain a sound only condition to the subjects whilst watching a blank screen, other than by introducing it as a radio news item. If that were done the differing expectations about that medium would have contaminated the data. An alternative control would have been to use a BBC announcer in a presenter sequence, but this was not possible.

Fig. 6.2 Shot Lists for Visual Sequences

Shot List for Pro-demonstrator Visuals

1. *crowded street
2. *zoom in on march commencing
3. *march underway
4. *police and demonstrators marching peacably
5. *speeches and milling about
6. *Grovsner Square
7. demonstrators' faces looking peaceable
8. *police and demonstrators milling and pushing
9. police violent (hit demonstrators)
10. student rescues friend from police batons
11. demonstrators run
12. police on horse in crowd
13. police kick demonstrator on pavement
14. police throw girl into bushes
- 15.*quiet streets.

Shot List for Pro-police visuals

1. *crowded street
2. *zoom in on march commencing
3. *march underway
4. radical students/ho chi mihn sign
5. *police and demonstrators marching peaceably
6. *speeches and milling about
7. *Grovsner Square
8. peaceful police ranks--prepared
9. marchers link arms
10. marchers gaining momentum
- 11.*police and demonstrators milling and pushing
12. marchers speed up
13. radical marchers charge in ranks
14. smoke bombs thrown at police
15. wounded policeman carried in stretcher
16. police help other wounded police
- 17.*quiet street

* indicates shots used in both versions

four experimental factors: Story Bias, Modality, Bimodal Inconsistency, and Visual Bias.

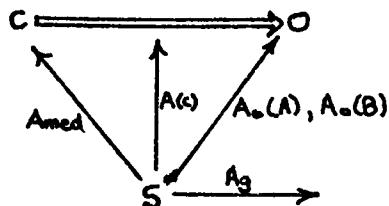
Each version of the final video tape had been transferred from the 16mm film footage to 1" videotape and edited at the London School of Economics Visual Aids Centre. Sound mixing and re-recording onto $\frac{1}{2}$ " videotape were done at the television studios of the Hornsey College of Art.

Each experimental condition consisted of showing the videotape to subjects on a 21" screen in relaxed small group settings. All subjects were administered the attitude questionnaire two weeks prior to viewing the video tape. This questionnaire included a measure of general attitudes, as well as those measures designed and specifically for opinions about demonstrations. Immediately after viewing the tape subjects were again administered a questionnaire. This time it included only the specific demonstration items, and added a six scale test that was designed to measure the perception of the news story itself. Five weeks later, the follow up retention measures were administered, and also the six perception of the story scales.

The subjects consisted of male and female, first and second year student volunteers who were studying at the Hornsey College of Art. Their ages ranged from 19-30. Any subjects who had taken part in the demonstration depicted, or who did not complete all parts of the questionnaire were eliminated in the analysis (approximately 6% of the sample). The experiment was performed in the Autumn of 1972 and Spring of 1973. The administration of each questionnaire took from 30 to 50 minutes to complete, and most subjects reported that they had not filled out attitude questionnaires previously.

The Questionnaire

A questionnaire was developed specifically for this study. Its general framework was based on a modification of Tannenbaum's (1968) general communication model as illustrated below:



The modification was made because in the action visuals sequence TV medium itself must be considered to be the source. In this model, the communicator (C= television news) is conveying information about an event (O= demonstration). The viewer (S) is considered to have both a general attitudinal disposition to the world (Ag), as well as specific opinions, already formed, about the event that is the object of the communication (Ao= opinions about demonstrations). Additionally, the viewer is expected to have opinions about the credibility of the medium (Amed) and also more specifically to make judgements about the treatment of the subject matter in the communication within the particular news story (AoC) = perception of news story). This latter measure is a modification to the general Tannenbaum model, yet is included here for two reasons. Firstly, it was designed to see the degree to which content bias factors were in fact perceived by the viewers. Secondly, it would identify the viewers ability to make judgements about the news bias, in specific news stories, as opposed to the programme or medium as a whole. This was necessary because it seemed unlikely that the overall credibility of the news would be significantly influenced by a bias preceived in one story.

Other modifications in the testing procedures were included to increase the sensitivity of the measures to the visual information transmitted. The first, was the development of an Impression Test. This test used the associations between pictures from the demonstration and event descriptions. This measure it was reasoned was more directly sensitive to the transmission of visual information. The second modification, which was freely adapted from Fishbien(1967), separated opinions about the demonstration into attitude (cognitive - affective (Ao(A)), and belief (cognitive only = Ao(B)) components. A third innovation included modality specific evaluations within the media credibility scales.

Pilot work in the development of the questionnaire analyzed the responses of 30 similar subjects to a large battery of questions. From these, scales and dimensions were contructed by the use of cluster and factor analysis. Although corrected for aquiescence responses, scales were numerically ordered so that the lower scores represented pro-demonstration sentiments, and the higher scores a pro-police orientation.

The questionnaire therefore consisted of the following elements:

- 1) a general attitudes questionnaire: Ag
- 2) opinions about demonstrations: Ao(A), Ao(B)
- 3) media credibility scales: A med
- 4) opinions about the communication: Ao(C)
- 5) Impression Test

as well as a follow up retention test.

General Attitudes (Ag)

To measure the general attitudinal predisposition of the subjects a modified Authoritarian Personality inventory was administered. In keeping with the suggestion of Himmelweit and Swift(1971) three major dimensions from the F-scale were used as independent dimensions of a general attitudinal instrument to estimate cognitive structure, and personality factors as determinants of opinion change due to a news broadcast. It was felt that this measure might provide a means of examining whether the viewers general 'view of the world' influences the impact of a specific story. Furthermore, it was reasoned that to the degree that this measure also reflected cognitive structure, it might help to explain the tolerance of some viewers to ambiguity in the messages. The three dimensions used were as follows (see Appendix for specific items):

- Ag 1: Force and Social Change
- Ag 2: Powerlessness and Self-determinancy
- Ag 3: Status Quo

This measure was used then, to control factors outside those of specific opinions about demonstrations that might be related to the processes of attitude change.

Opinion about Demonstrations (Ao(A), Ao(B))

This component of the questionnaire was developed to investigate the effects of the message bias on those specific opinions about demonstrations that might be expected to change as a result of seeing a news story concerning demonstrations. The items focused on opinions about the demonstration as an event, the various actors in these events

(police and demonstrators), and students and radicals as a subgroup of demonstrators. An original 126 item question list was reduced in the pilot study to the 27 seven point Likert items that clustered in 6 scales that were intercorrelated. Unclear items, as well as those that loaded heavily on more than one scale were eliminated. The following six scales were the ones used in the study (see Appendix for specific questions) to measure opinions

- Ao(A) 1 : general favourability of demonstrations, legitimacy, necessity of violence
- Ao(A) 2 : demonstrators as the initiators of violence
- Ao(A) 3 : the general qualities of demonstrators
- Ao(A) 4 : police as the initiators of violence
- Ao(A) 5 : the general qualities of police
- Ao(A) 6 : students and radicals as demonstrators

The items were scaled in their degree of favourableness with low scores emphasizing a positive attitude to demonstrators and high scores as positive attitude towards the police's role.

As stated earlier given a distinction between 'belief' and 'attitude' components of opinions, a separate set of scales were constructed to measure independantly belief components of these same scales, using a nine point probabilistic format. The belief scales were as follows:

- Ao(B)1 : probability of violence and success of demonstrators
- Ao(B)2 : probability of demonstrators initiating violence
- Ao(B)3 : quantity of demonstrators with given qualities
- Ao(B)4 : probability of police initiating violence
- Ao(B)5 : quantity of police with given qualities
- Ao(B)6 : probability of students and radicals causing violence

Constructing the scales in this way would thus allow for the assessment of the effects of the different versions of the film on different components of the subjects opinion about demonstrations, as well as provide a comparison of the impact of the communication on cognitive-affective and belief components independantly.

Opinions about Media Credibility

Four scales were constructed to measure the subjects' attitude towards the television as a news media using both Likert, and scales measured in

percentiles estimations. The following dimensions were used:

- Amed 1 : believability, clarity, completeness of news
- Amed 2 : visual more believable than audio
- Amed 3 : news generally biased in favour of police/demonstrators
- Amed 4 : preference for TV vs Radio news

These scales were employed in order to ascertain the effects of counterattitudinal communications on the general predisposition of the viewer to the media and news programme as a source.

Perception of the Communication Ao(C)

This set of items was used only in the post-test and follow up stages. It posits that the subjects have an opinion about a specific item communicated in the news which consists of perception of the bias of the communication. It may be suggested that this aspect of the subjects' opinion about the communication is the equivalent of a judgement about the action visuals sequence as a 'source' of information, by estimating bias and persuasiveness of the communication.

The following six items were used:

- Ao(C) 1 : perception of news story clear/ambiguous
- Ao(C) 2 : story biased in favour of demonstrators
- Ao(C) 3 : story biased in favour of police
- Ao(C) 4 : perception of violent emphasis in story
- Ao(C) 5 : would influence typical viewer to believe police initiate violence
- Ao(C) 6 : would influence typical viewer to believe demonstrator initiate violence

Impression Test

This test was developed specifically for the purposes of this study in order to provide a measure that was not entirely based on lexically encoded aspects of opinion. The problem was that nowhere in the literature could a satisfactory measure sensitive to visually transmitted information, be found. In particular this measure was specifically designed to estimate the 'information transmitted' by the different treatments, by measuring associations between pictures and

event statements. This information transmission measure was used so as to test hypothesis generated in an 'information theory approach' to the modality issue as well as an 'attitudinal' one. The twelve pictures were directly taken from the 16 mm film footage of the demonstrations. Some of these pictures were taken from the portions of the film which were present in only one or other of the film versions, whereas others had appeared in both. The statements consisted of aspects of the demonstration briefly described (ie. the march gets under way, speeches call for violence by demonstrators). In the pretest, subjects were asked to indicate for each picture, the likelihood that the event depicted in the picture immediately followed from the event described in the response statement in the course of a typical demonstration. In the post-test these same Impression responses were asked about the demonstration in the news story viewed on the video tape. Subjects could use one or more response categories for each picture. Each of the pictures and response categories had been independently rated by 7 graduate students of social psychology at the London School of Economics for their indications of whether the demonstrators, and the police were emphasized as initiating violence. These separate judgements were used to divide pictures into pro-police pro-demonstrator and neutral categories. In this way a 12 x 12 matrix was constructed which indicates the subjects' estimation of the response statements that were likely to immediately precede the events in the pictures. The measure was designed to make use of the formula for information transmitted

$$IT = U(S) + U(R) - U(S,R)$$

developed by Attneave (1959) for measuring the amount of information transmitted in a stimulus-response matrix. The change in the amount of information transmitted by the picture stimuli, could therefore be used as an estimation of the impact of the different treatment conditions of the broadcast (for more elaborate detail in the interpretation of this measure, see Appendix). Although the use of this measure to calculate the informational properties of the broadcasts are regarded as content free estimations of information (Garner 1962) the measures of $U(R)$ for pro-police and pro-demonstrator response categories can also be used to indicate whether the viewer is changing the associations of particular

pictures with regards to different types of response category. Although this is a novel use of the information formula, it was considered necessary to explore a means of establishing measures of the effects of the broadcasts that are responsive to visual information. As is pointed out by Garner(1962) the information calculation bears a strong resemblance to the analysis of variance although tests of significance are not developed. As an opinion change measure it is based on the calculation of the difference between expectations about an event, and the immediate retention of information.

Visual Retention Measure

The visual retention measure was developed to investigate the effects of the different manipulations of the treatment on the long term retention of the visual images presented in the films. Twelve still pictures from the Impression Test and eight other pictures taken from the film, were used for this purpose. Subjects viewed each picture separately and indicated whether that specific picture had appeared (affirmative response) or not appeared (negative response) in the news broadcast which they had viewed about demonstrations. Pictures were selected from this array so that some had appeared in the pro-demonstrator film, and others had appeared in the pro-police films only. Other pictures had appeared in both versions. All pictures had been judged by the group of graduate students previously mentioned and provided a means of classifying them as pro-police, pro-demonstrator or neutral. These photographs were transferred from 16 mm movie film to $2\frac{1}{4} \times 2\frac{1}{4}$ film and enlarged to $8\frac{1}{2}$ by $11\frac{1}{2}$ " prints and mounted on cardboard (see Appendix).

All data from the study was assembled on IBM cards and analyzed by the use of the BMD and SPSS programmes. A special programme was written for the Information Transmission analysis.

Section 6.4:

Results

General Attitudes and Initial Opinions

The general attitudes of the subjects as measured by the three separate dimensions of the modified Authoritarianism Scales (Ag 1 to 3) are displayed in Figure 6.3 for treatment groups separately. An analysis of variance showed no significant differences between groups on any one of these dimensions of general attitude at the $p = .05$ level. Figure 6.4 shows the intercorrelation matrix for these three scales as well as the significant correlations with the six scales of opinion about demonstrations (Ao(A) 1 to 6). The dimensions of general attitude show a degree of internal relatedness, although these correlations are not marked. The relationship of specific dimensions of general attitudes with specific opinion scales should also be noted. For example, the Status Quo dimension (Ag 3) is seen to be correlated negatively with the 'nature and effectiveness of demonstration' scale (Ao(A)1), whereas the Force and its Necessity dimension (Ag 1) is strongly related to the opinion that 'demonstrators initiate violence' (Ao(A)2) that they lack positive qualities, (Ao(A)3), which the police have Ao(A)5.

The impression generated in the overview of this data tends to reinforce the Himmelweit and Swift suggestion, that although some common factor may underly the F-scale, the dimensions may be more useful when used independently. Here, there is marginal evidence to indicate that the dimensions of general attitude are related to different specific opinions about demonstrations. Furthermore, there is no reason to believe that the treatment groups differed in these general attitudes.

Figure 6.5 shows means and standard deviations for individual treatment groups for the initial measurement of opinions concerning demonstrations. Again, an analysis of variance showed that there was no reason to believe that the groups held different initial opinions about demonstrations. Therefore, it seems reasonable to proceed under the assumption that effects of treatment are neither due to group

8. Subsequent analysis of variance were done on regrouped data when specific treatment effects were being examined, for example groups 1, 11 and 2, 22, and were likewise non-significant.

FIGURE NO.6.3: Means and standard deviations of three general attitude dimensions for each treatment group

		TREATMENT							
		1	11	2	22	12	21	TOTAL	F
AG 1	FORCE AND ITS NECESSITY	\bar{X}	35.0	32.8	35.4	36.4	30.3	33.2	33.9
		S. Dev.	8.1	5.1	4.6	5.3	7.8	6.3	6.4
AG 2	POWERLESSNESS AND SELF DETERMINACY	\bar{X}	30.5	30.2	29.4	32.1	28.4	29.1	30.0
		S. Dev.	5.5	4.3	4.3	4.3	3.6	4.9	4.5
AG 3	STATUS QUO	\bar{X}	32	32.8	31.1	34.7	31.1	33.4	32.7
		S. Dev.	5.9	3.9	5.8	5.1	4.4	5.2	5.1

Fig. # 6.4: Intercorrelation Matrix for General Attitude Dimensions

General Attitudes

	Force Ag1	Powerlessness Ag2	Status Quo Ag3
Ag1	1.0		
Ag2	.36	1.0	
Ag3	.39	.37	1.0

FIGURE NO.6.4a: Significant Intercorrelations of Independent Dimensions of General Attitude with Opinion Scales.

	Ag 1	Ag 2	Ag 3
Ag 1	1.0	-	-
Ag 2	.36	1.0	-
Ag 3	.39	.37	1.0
A0(A) 1	-	-	.33
A0(A) 2	.44	.32	-
A0(A) 3	.37	.35	-
A0(A) 4	.37	-	-
A0(A) 5	-	.36	-
A0(A) 6	-	-	-

P > .05 if r > .30

* there were no significant correlations between any General Attitude Dimension and changed opinion scale [A0(A) 1 - 6].

FIGURE NO. 6.5: Means on scales of initial opinion for treatment groups separately.

TREATMENT

	1	11	2	22	12	21	\bar{x}	S. Dev.	F	
O P I N I O N	Ao(A)1	14.9	17.5	17.4	17.6	16.5	16.9	16.8	3.3	1.0
	Ao(A)2	19.0	16.2	18.2	19.9	15.8	17.7	17.9	4.9	1.3
	Ao(A)3	21.5	17.2	17.9	19.9	18.8	18.7	19.0	4.7	1.4
	Ao(A)4	11.8	12.1	12.9	13.1	13.4	13.6	12.9	2.8	.8
	Ao(A)5	19.8	17.6	18.7	19.3	16.8	18.9	18.6	3.8	.94
	Ao(A)6	9.6	10.6	10.9	9.9	10.9	10.3	10.3	2.7	.46

differences in general attitude, or specific opinions about demonstrations. Furthermore, it may be noted that the overall distribution of each attitude and opinion scale seems to approximate a normal curve, and within each treatment group are found subjects who are both pro-police and pro-demonstrator.

However, before proceeding to analyze the treatment effects, it is useful to see whether the general attitude dimensions, as indicators of cognitive structure are related to the quantity and direction of specific opinion change. It has been suggested by Rockeach(1960) that the F-scale primarily measures the structural and complexity attributes of the cognitive system. If this were true, then it might be expected that the F-scale dimensions would provide a means of predicting the amount and direction of opinion change by measuring this general cognitive structure. However, an examination revealed no significant correlations between each of the amount of change on opinion scales and the F-scale dimension. A further test was used to examine the relationship between direction of change and general attitudes. Subjects were divided into positive and negative changers⁹ for each opinion dimension, and mean scores were compared for each of the three general attitude dimensions using these groups. In this analysis, only the direction of change on the Students and Radicals opinion scale was significantly different for different scores on the Status Quo General attitudes dimension (Ag 3), with an F value of 3.7. Although general attitudes were correlated with some specific opinions about demonstrations, as indicators of cognitive structure, they showed little relationship to direction or amount of attitude change. Subsequent stepwise analysis of covariance within treatment groups showed that these general attitude dimensions were not significantly related to attitude change, and accounted for a very small proportion of the explained variance, except on the above mentioned scale.

An examination of the specific opinions about demonstrations revealed a different pattern. Figure 6.6 displays the intercorrelation matrix for the six opinion scales. It can be seen that there is a relationship (.33) between the opinion that demonstrators restrain from violence (Ao(A)2) and a positive assessment of demonstrators' qualities (Ao(A)3). Reciprocally a relationship between the initiation of violence by police, and police qualities does not hold (.05). The strongest relationship (.47) between opinion scales is between the assessment of

9. positive change on Ao(A)1 is demonstrations are less useful
- positive change on Ao(A)2-5 is less favourable to demonstrators
- positive change on Ao(A)6 more likely to blame radicals and students

FIGURE NO.6.7: Intercorrelations of amount of opinion change with initial opinion

O
P
I
N
I
O
N
C
H
A
N
G
E

	INITIAL OPINION					
	Ao(A) 1	Ao(A) 2	Ao(A) 3	Ao(A) 4	Ao(A) 5	Ao(A) 6
ΔAo(A)1	.53	-.03	.05	.31	.00	.03
ΔAo(A)2	-.01	.26	-.20	-.03	.01	-.05
ΔAo(A)3	.11	-.03	.43	.10	.04	-.21
ΔAo(A)4	.12	-.01	.13	.59	.24	-.10
ΔAo(A)5	-.11	.07	.18	.14	.41	-.30
ΔAo(A)6	.04	-.02	-.07	-.01	-.03	.66

FIGURE NO.6.6: Intercorrelations between scales on initial opinion

I
N
I
T
I
A
L
O
P
I
N
I
O
N

	INITIAL OPINION					
	Ao(A) 1	Ao(A) 2	Ao(A) 3	Ao(A) 4	Ao(A) 5	Ao(A) 6
Ao(A)1	1.0					
Ao(A)2	-.09	1.0				
Ao(A)3	-.14	.33	1.0			
Ao(A)4	.25	-.15	-.09	1.0		
Ao(A)5	-.08	.47	.46	.05	1.0	
Ao(A)6	.22	-.01	-.27	.19	-.11	1.0

police qualities and the opinion that demonstrators initiate violence (Ao(A)2). The police qualities are also related to demonstrator qualities (Ao(A)3) (.46). These intercorrelations indicate that although the scales measure opinions about demonstrators and police separately, that these are to a degree related actors in the context of a demonstration, and that the assumption of dimensionalizing these scales from a pro-demonstrator to pro-police bias is in fact representative of the way ¹⁰ these subjects conceptualize these actors. For this reason a summated scale ranging from pro-police to pro-demonstrator opinion was used by averaging change scores over the four scales concerned with police and demonstrators (Ao(2) to Ao(5)). This opinion dimension will be referred to as the Main Actors dimension. Possibly the most striking absence of a relationship within this summated scale is between the demonstrators' initiate violence, and police initiate violence scales, which may be indicative of the degree to which police are not viewed as being responsible for aggression.

Fig. 6.7 displays the intercorrelations between the various initial opinion scores, and the amount of change on the various opinion dimensions. From this matrix it can be seen that the amount and direction of change on an opinion scale is positively related to the subjects' initial opinion as measured by this scale. Tests for linearity of this relationship were significant for all but the demonstrator initiates violence scale. However, initial opinion as measured by any one scale of opinion, was not highly related to change of opinion on other scales. The relationship between opinion change and own attitude seems to hold only for the specific scales, revealing possibly a relatively articulated system in terms of opinion change. Although initial opinion on two scales may be correlated, change of opinion on one scale is not necessarily predicted by initial scores on the other.

Further analysis of this data, as displayed in Figure 6.8 was performed by dividing the sample into low, medium and high scoring groups for each opinion scale, in terms of intervals of $\pm \frac{1}{2}$ standard deviations. On these groups the direction of change was tested by means of a chi square test. For all but the demonstrator initiate violence scale, the direction of change is related to the initial score on the opinion scale. Both extremes tending to shift more towards the centre,

¹⁰. probably as a result of a well established expectational set, determined by having viewed news stories which continually use this oppositional framework to structure the news story.

FIGURE NO.6.8: Chi Square Analysis tables for each opinion dimension divided into low, medium and high scoring groups by direction of opinion change.

OPINION SCALE	DIRECTION OF OPINION CHANGE		
		-	+
	demo-useful		
	LOW	13	4
	MED	21	8
	HIGH	7	20
	demo-useless		
	pro-demo	-	+
	LOW	6	4
ΔAo(A)1	MED	23	23
	HIGH	10	7
	anti-demo		
	pro-demo	-	+
	LOW	8	0
ΔAo(A)2	MED	30	18
	HIGH	7	10
	anti-demo		
ΔAo(A)3			

continued

OPINION SCALE

DIRECTION OF
OPINION CHANGE

anti-police	-	+
	<hr/>	

LOW	13	1
	<hr/>	

MED	22	22
	<hr/>	

HIGH	5	10
------	---	----

pro-police

anti-police	-	+
	<hr/>	

LOW	15	22
	<hr/>	

MED	17	11
	<hr/>	

HIGH	13	15
------	----	----

pro-police

radicals no problem	-	+
	<hr/>	

LOW	13	1
	<hr/>	

MED	24	17
	<hr/>	

HIGH	1	17
------	---	----

radicals
no problem

$\chi^2 = 11.4$

$p > .003$

$\chi^2 = 7.8$

$p > .02$

$\chi^2 = 25.6$

$p > .0000$

FIGURE NO. 6.8 continued

KEY

OPINION SCALE	DIRECTION OF CHANGE
Ao(A)1	- change: violent demonstrations are less useful
Ao(A)2	- change: more pro-demonstrator
Ao(A)3	- change: more pro-demonstrator
Ao(A)4	- change: less pro-police
Ao(A)5	- change: less pro-police
Ao(A)6	- change: less students and radicals as problem

than more medial initial positions. For example, those subjects which indicated a low initial opinion of the police qualities, were more likely to change in a pro-police direction, and those that indicated a high initial opinion of the police, more likely to change in a pro-demonstrator direction, as a result of seeing the news story. This general normalising tendency would be predicted by both discrepancy and social judgement theories¹¹ with regard to the effects of discrepancy of the communication from own position, under the assumption that the overall position of the news stories was approximately neutral. This assumption seems likely considering that the data are aggregated across all treatments, so that the bias overall news stories is balanced (as many pro-police as pro-demonstrator versions are shown). The following graph indicates the general trends between initial position on an opinion scale and degree and direction of opinion change resulting from seeing the news story for all subjects.

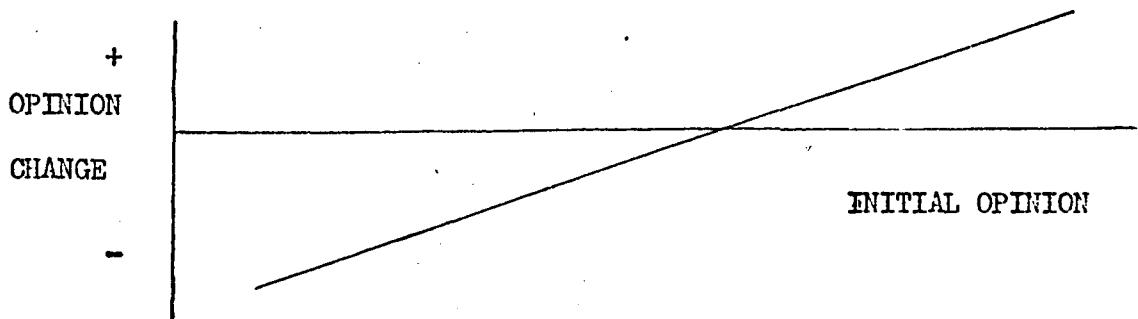


Fig. 6.9. Linear Relationship between initial opinion and opinion change

Under the assumption that the effects of the summed versions of the news broadcast is balanced, the observed relationship between discrepancy from own position and amount and direction of attitude change seems to be a simple linear relationship. This result might also be explained by a regression effect. Such an effect would occur if subjects were merely making more medial responses on the second application of the test. Rather than resulting from discrepancy, this result would be explained by less extreme

11. If, as is likely in a high credibility neutral source situation the communication falls within the range of acceptance for social judgement theory, assimilation predictions and discrepancy predictions would be similar.

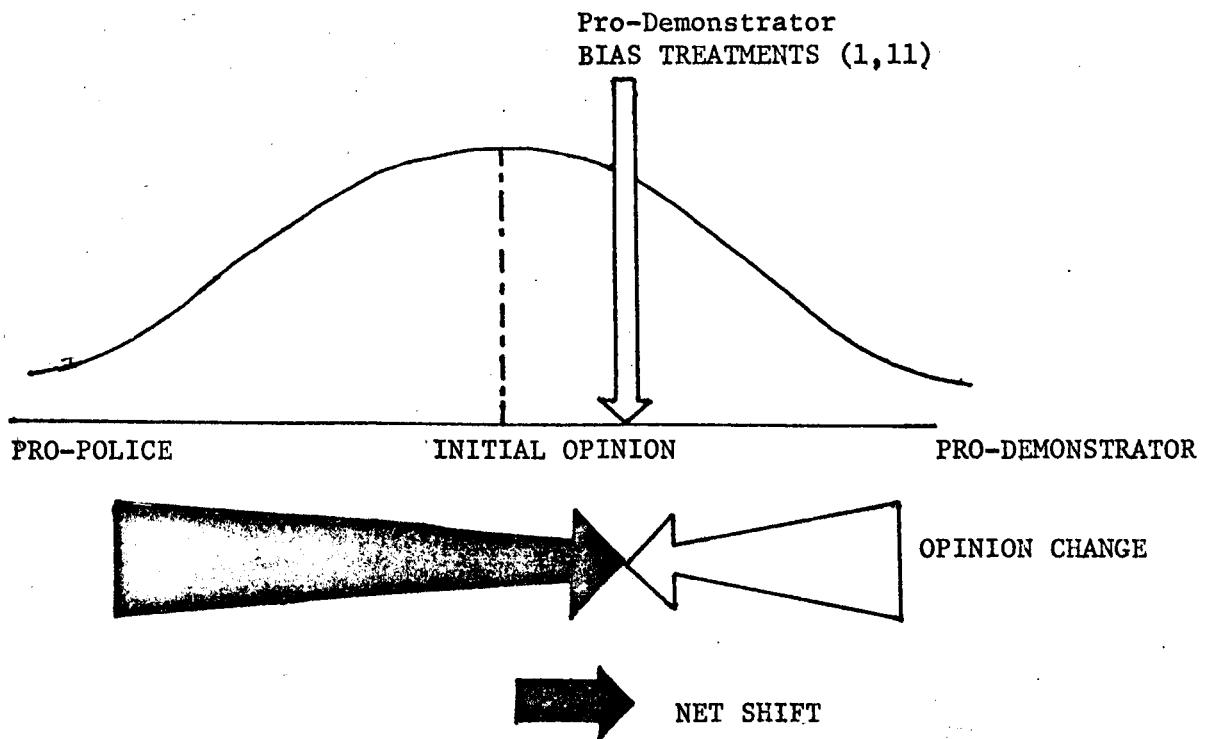
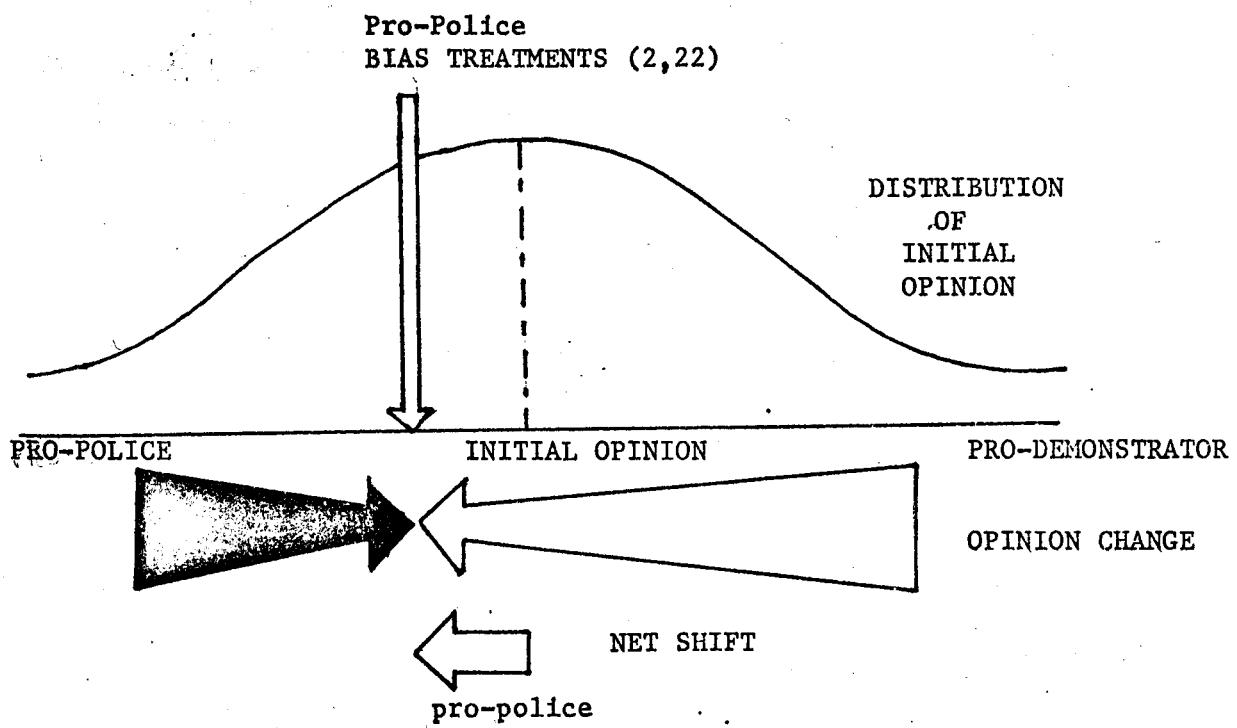
responses.

Treatment Effects: Bias and Discrepancy

If the larger shifts of the more extreme initial positions are explained entirely by regression effects then this phenomena should be undisturbed by the bias of the news story as tested by contrasting the pro-demonstrator and pro-police treatment groups (conditions 1,11 vs 2,22). However, if the biasing of the story results in net opinion shifts in the direction of the bias, this result might justify a discrepancy interpretation. This argument is illustrated in Fig. 6.10. For the pro-police biased film, discrepancy is greatest for extreme pro-demonstrator initial opinions and they would be expected to show the greater shift. The net shift would be in the pro-police direction. On the other hand, when the news story has a pro-demonstrator bias, the viewers with the most pro-police initial opinions would be expected to shift more, resulting in a pro-demonstration net shift. Furthermore, it should be noted that the size of the 'net' shift in opinions actually underestimates the actual effect of the story bias on opinions, by indicating only what remains after the opposing shifts are cancelled out. The first analysis to test these effects contrasted the pro-police and pro-demonstrator news stories in terms of the number of subjects shifting in a positive and negative direction for the Main Actors opinion scales. The chi square for this test was 13.1 significant at the .01 level. The bias of the news story resulted in increasing the shift of opinion in the direction of the bias, as would be predicted in terms of the discrepancy of the initial opinion from the communication. A further test for the amount and direction of shift on these same four scales, compared the mean shift of the pro-demonstrator stories (-1.14 scale units) with that of the pro-police version (+.45 scale units). This was tested by means of the students' T-statistic and was found significant with a probability greater than .01. In terms of both direction of shift and overall magnitude, the differently edited versions of the news story resulted in opinion change in directions determined by the bias of the news story. However subjects seemed to shift slightly more in a pro-demonstrator direction, than in a pro-police direction.

Another analysis of the data also was used to examine the effects of the bias of the content on individual scale change. The mean change scores by treatment groups are displayed for each opinion, belief

Fig# 6.10 Relationship of Initial Opinion and Treatment Bias on
Opinion Change: Cancellation effects



and media credibility scale in Fig. 6.11. Fig. 6.12 displays the mean opinion shift for the pro-police, pro-demonstrator and inconsistent treatment conditions separately. T-tests for differences between means for the pro-police and pro-demonstrator treatments are further displayed in Fig. 6.13. In terms of the individual opinion scales, the demonstrator initiate violence ($Ao(A)2$), demonstrator qualities ($Ao(A)3$) and the police qualities ($Ao(A)5$) scales all show significant differences, as do the 'success of demonstrations' ($Ao(B)1$) and 'demonstrator qualities' ($Ao(B)3$) belief scales. The impact of the messages in terms of different scales seems to vary in strength. Subjects are unlikely to change their opinions about whether police initiate violence, although they do change on the demonstrators initiate violence scale. They are however, likely to change their opinion about the 'Police's qualities' which reveals the greatest amount of 'bias' treatment effect.

The relationship between initial opinion and amount of opinion change for the different bias treatment groups was also examined by means of an analysis of covariance. Tests for interactions between treatment and the slope of the relationship between initial opinion and amount of change were only significant for the demonstrators' initiate violence scale. With regards to this scale a scattergram analysis illustrated that for the pro-demonstrator bias condition there was no relationship between initial opinion and amount of shift, whereas for the pro-police condition there was a direct strong relationship. This explained why the correlation between ($Ao(A)2$ and $\Delta Ao(A)2$) was low. Fig. 6.14. displays the results of the analysis of covariance for the separate opinion scales. Where the effects of treatment are significant upon opinion change these effects can be seen to be independent of the relationship between initial opinion and the amount of change.

Since bias of the communication was seen to have an effect on opinion change, the analysis continued by investigating the relationship between modality of presentation, story bias and amount and direction of opinion change. Fig. 6.15 shows means and summated shifts for the main actors dimension of opinion for treatments separately. These graphs indicate that not only is the direction of shift for treatments dependent upon the bias of the communication, but the amount of shift increases for consistent messages when both modalities are used. T-test comparisons for the absolute value of mean shift for unimodal and bimodal conditions (1,2 vs 11,22) was significant at the .05 level, revealing the increased strength of the

FIGURE NO.6.11: Mean opinion change, belief change, and media credibility change scores for treatments.

		TREATMENT								
		1	11	2	22	12	21	\bar{x}	S. Dev.	F
O P C H A N G E	$\Delta Ao(A)1$	-.7	-.3	1.2	.1	.4	-.9	-.07	-.07	.45
	$\Delta Ao(A)2$	-1.3	-.9	.2	1.7	.5	-.1	.11	3.2	1.4
	$\Delta Ao(A)3$	-1.5	-2.2	.0	-.6	1.4	-.3	-.5	3.8	1.1
	$\Delta Ao(A)4$	-.2	-.5	.0	.6	-1.5	1.6	.12	2.9	1.6
	$\Delta Ao(A)5$	-.9	-1.6	.2	1.5	-.1	-.7	-.2	2.7	2.3
	$\Delta Ao(A)6$	0	1.2	.3	.2	.5	.7	.50	2.2	.5
B C E H L A N G E F E	$\Delta Ao(B)1$	-1.2	-.8	.2	-.1	-.8	-.9	-.6	2.2	.7
	$\Delta Ao(B)2$	1.8	-1.9	-2.3	2.3	.3	-.7	-.0	4.7	2.1
	$\Delta Ao(B)3$	-.7	-1.7	-.3	+1.5	-.3	-.8	-.3	2.6	2.3
	$\Delta Ao(B)4$	-.4	.1	-.5	-.2	.5	-.7	-.2	2.3	.40
	$\Delta Ao(B)5$	-1.6	.6	.1	.1	1.2	-.7	-.0	2.2	2.3
	$\Delta Ao(B)6$	-.6	-.8	-.5	-.7	-.4	.1	-.5	1.9	.40
C R E D I B A L I T Y	$\Delta A med 1$	3.4	-.4	-.4	1.3	-.8	2.5	1.0	5.0	1.4
	$\Delta A med 2$	.3	2.6	.5	-.1	.9	2.1	1.0	3.2	1.5
	$\Delta A med 3$	-.9	1.3	-1.2	.8	-1.5	.8	.3	5.2	1.7
	$\Delta A med 4$	.2	+.7	-.6	1.0	-.8	1.1	.5	3.2	1.1

FIGURE NO.6.12: Mean opinion change and belief change scores for treatments grouped by bias.

TREATMENT	+ DEMO		+ POL		INCONSISTENT		
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	
OPINION CHANGE	$\Delta Ao(A)1$	-.48	3.4	-.54	4.4	-.35	3.4
	$\Delta Ao(A)2$	-1.1	3.0	1.0	3.3	.2	3.0
	$\Delta Ao(A)3$	-1.9	3.6	-.3	3.6	.4	4.1
	$\Delta Ao(A)4$	-.4	2.3	.35	2.6	.31	3.8
	$\Delta Ao(A)5$	-1.3	2.5	1.0	3.1	-.4	2.1
	$\Delta Ao(A)6$	.6	2.5	.2	2.3	.7	1.9
BELIEF CHANGE	$\Delta Ao(B)1$	-1.0	2.3	.0	1.4	-.9	2.7
	$\Delta Ao(B)2$	-.14	6.0	.35	4.9	-.3	3.3
	$\Delta Ao(B)3$	-1.2	2.3	.73	2.8	-.6	2.5
	$\Delta Ao(B)4$	-.14	2.2	-.3	2.6	-.2	2.0
	$\Delta Ao(B)5$	-.4	2.6	.12	1.8	.12	2.4
	$\Delta Ao(B)6$	-.7	1.2	-.6	1.7	-.1	2.4

FIGURE NO 6.13: T-test comparisons for means of opinion, belief and credibility scales between pro-police and pro-demonstrator bias treatments.

		T - Value	Level of Significance
P I N I O N	ΔAo(A)1	.90	NS
	ΔAo(A)2	2.26	.01
	ΔAo(A)3	1.58	.05
	ΔAo(A)4	.96	NS
	ΔAo(A)5	2.77	.005
	ΔAo(A)6	.54	NS
B E L I E F	ΔAo(B)1	1.7	.05
	ΔAo(B)2	.3	NS
	ΔAo(B)3	2.7	.005
	ΔAo(B)4	.28	NS
	ΔAo(B)5	.82	NS
	ΔAo(B)6	.48	NS
C R E M D E I D B I I A L I T Y	ΔA med 1	.62	NS
	ΔA med 2	1.5	NS
	ΔA med 3	.2	NS
	ΔA med 4	.14	NS

FIGURE N06.14: Analysis of covariance tables for 'Bias' treatment groups on Opinion Change and Belief Change scales.

$\Delta Ao(A)1$ covaried with $Ao(A)1$

	DF	Mean Sq	F	Sig
COV	1	198.2	16.5	.001
TRT	1	1.02	.085	NS
EXPL	2	99.6	8.2	.001
RGS	44	12.1		
TOT	46	15.9		

$\Delta Ao(A)2$ covaried with $Ao(A)2$

COV	1	26.8	2.7	.10
TRT	1	42.4	4.3	.04
EXPL	2	34.6	3.5	.04
RES	44	9.9		
TOT	46	11.0		

$\Delta Ao(A)3$ covaried with $Ao(A)3$

COV	1	103.2	9.5	.004
TRT	1	28.6	2.6	.108
EXPL	2	65.9	6.1	.005
RES	44			
TOT	46			

$\Delta Ao(A)4$ covaried with $Ao(A)4$

COV	1	59.7	11.7	.001
TRT	1	.67	.13	.99
EXPL	2	30.2	5.9	.005
RES	44	5.1		
TOT	46	6.2		

$\Delta\text{Ao(A)5}$ covaried with Ao(A)5

	DF	Mean Sq	F	Sig
COV	1	82	12.7	.001
TRT	1	51.9	8.0	.007
EXPL	2	67.0	10.4	.001
RES	44	2.7		
TOT	46	5.6		

$\Delta\text{Ao(A)6}$ covaried with Ao(A)6

COV	1	135.9	51.2	.001
TRT	1	2.7	1.0	.319
EXPL	2	69.3	26.1	.001
RES	44	2.7		
TOT	46	5.6		

$\Delta\text{Ao(B)1}$ covaried with Ao(B)1

COV	1	20.7	6.8	.012
TRT	1	14.1	4.6	.034
EXPL	2	17.4	5.8	.006
RES	44	3.0		
TOT	46	3.6		

$\Delta\text{Ao(B)2}$ covaried with Ao(B)2

COV	1	335.6	15.5	.001
TRT	1	24.9	1.2	.289
EXPL	2	180.	8.3	.001
RES	44	21.6		
TOT	46	28.5		

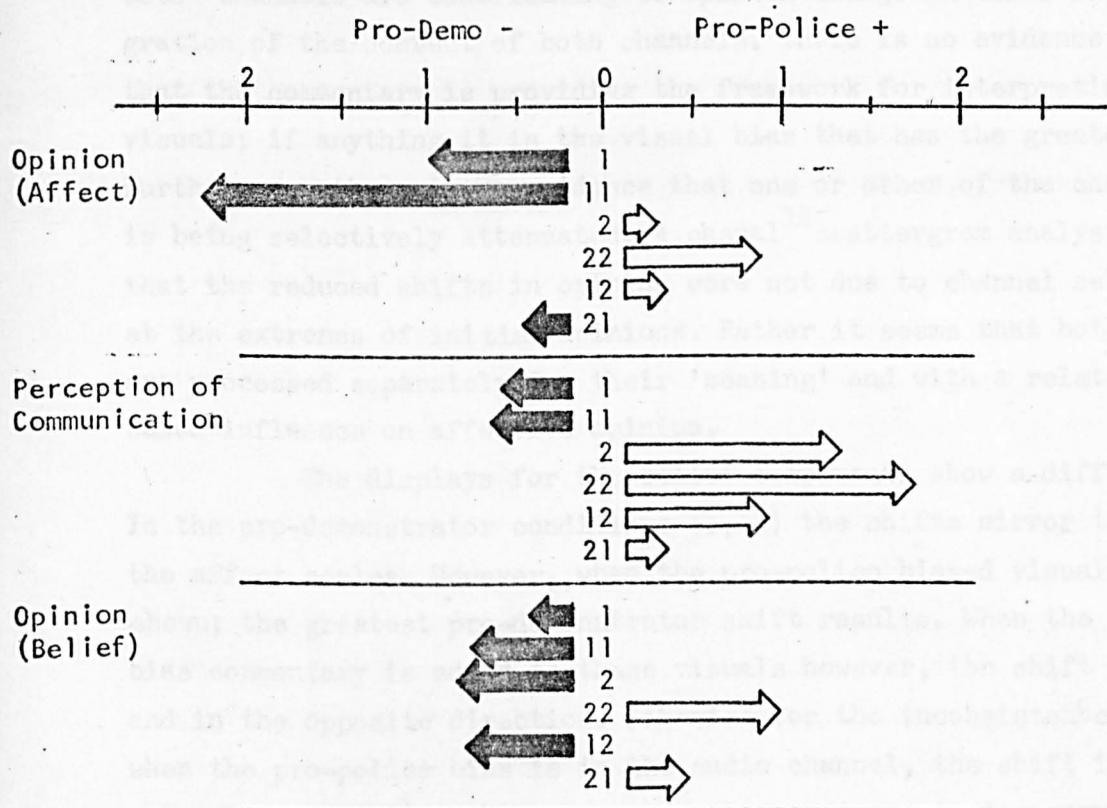
$\Delta\text{Ao(B)3}$ covaried with Ao(B)3

COV	1	65.2	11.6	.002
TRT	1	25.4	4.5	.037
EXPL	2	45.3	8.0	.001
RES	44	5.6		
TOT	46	7.3		

Fig. #6.15: Mean Scores for Treatment Groups on the Main Actors Dimension for the Opinion Change, Belief Change, and Perception of Communication Scales*

TREATMENT

	1	11	2	22	12	21
S Opinion (Affect)	-.98	-2.3	.1	.8	.3	-.1
C						
A Perception of L Communication	-.5	1.6	1.3	1.7	.8	.3
E Opinion(Belief)	-.23	-.75	-.85	.9	-.73	-.35



* Score expressed as deviation from scale neutral point.

message on the addition of another modality. Two implications can be noted in this data. The first is the fact that the bias transmitted in visual channels alone was sufficient to cause opinions to change. The second is the fact that the amount of change is greatly increased in the bimodal situation.

For the two inconsistent conditions, the amount of attitude change is smaller; with the direction of the shift being slightly greater in the direction of the visual bias. For the pro-demonstrator visuals this means a slight shift in the pro-demonstrator direction, and for pro-police visuals in the pro-police direction. However, analysis of variance did not show differences between these treatments at the .05. level of significance. It seems that when the modal channels are inconsistent there is the slight tendency for the bias of the visuals to influence affective opinions more than the narration.

The results of these inconsistent conditions indicate that both channels are contributing to opinion change in terms of an integration of the content of both channels. There is no evidence to indicate that the commentary is providing the framework for interpreting the visuals; if anything it is the visual bias that has the greatest impact; Furthermore, there is no evidence that one or other of the channels is being selectively attenuated. A casual¹² scattergram analysis indicated that the reduced shifts in opinion were not due to channel selectivity at the extremes of initial opinions. Rather it seems that both channels are processed separately for their 'meaning' and with a relative modality based influence on affective opinion.

The displays for the belief components show a different pattern. In the pro-demonstrator conditions (1,11) the shifts mirror those of the affect scales. However, when the pro-police biased visuals are shown; the greatest pro-demonstrator shift results. When the pro-police bias commentary is added to these visuals however, the shift is strong and in the opposite direction. Likewise for the inconsistent conditions; when the pro-police bias is in the audio channel, the shift is in the pro-police direction. However, when the pro-demonstrator commentary is added to a pro-police visual the shift is in the pro-demonstrator direction. For belief components a pro-police shift occurs only when the pro-police bias is on the commentary. Otherwise the shift is in the pro-demonstrator

12. There were too few cases to test statistically

direction.

This result is more difficult to explain in terms of the models of information processing unless it is assumed that the visual channel has little impact on belief components. If this were the case, then the opposing shifts (11,12 vs 22, 21) can be attributed to the effects of the commentary on belief components. Certainly in the inconsistent conditions this is the case. The problem treatments, however, are the two visual-only conditions. Why should they both shift in the pro-demonstrator direction; the larger of these shifts being the pro-police visuals. This point will require further elaboration although it may be suggested that when no interpretive framework is provided by the commentary, the components are changing in response to the initial opinion of the viewers.

Fig. 6.16 shows the means of the treatment groups for the six "Perception of the Communication" scales. These conditions are also displayed graphically in Fig. 6.15. showing the scores directionally transformed as distance from the neutral point on the scale. Fig. 6.17 displays these results by treatments and shows mean shifts (before-after) for these scales on the retention test along the main actors dimension of the 'perception of communication' scales.¹³ From Fig. 6.16 it can be seen that there was no significant difference in the amount of ambiguity perceived in the communication between treatments. This reveals that the inconsistent and visuals-only conditions are not regarded as more unclear than the bimodally consistent presentations. On the perception of the amount of violence scale, those broadcasts which had pro-demonstrator visuals were seen as less violent than those with pro-police visuals¹⁴. Otherwise, results on the main actors (Fig. 6.15) dimension of the perceptions of bias scales mirror the effects of treatment on the opinion-affect scales. Again, consistent bimodal presentation is seen to be more effective in shifting judgement in the direction of the communication than the similarly biased visual only conditions. Both inconsistent conditions show a shift in the pro-police direction, although less so than do both pro-police messages. When the visual bias in the inconsistent condition is pro-demonstrator, the shift in the pro-police direction is less than when the visual bias is pro-demonstrator.

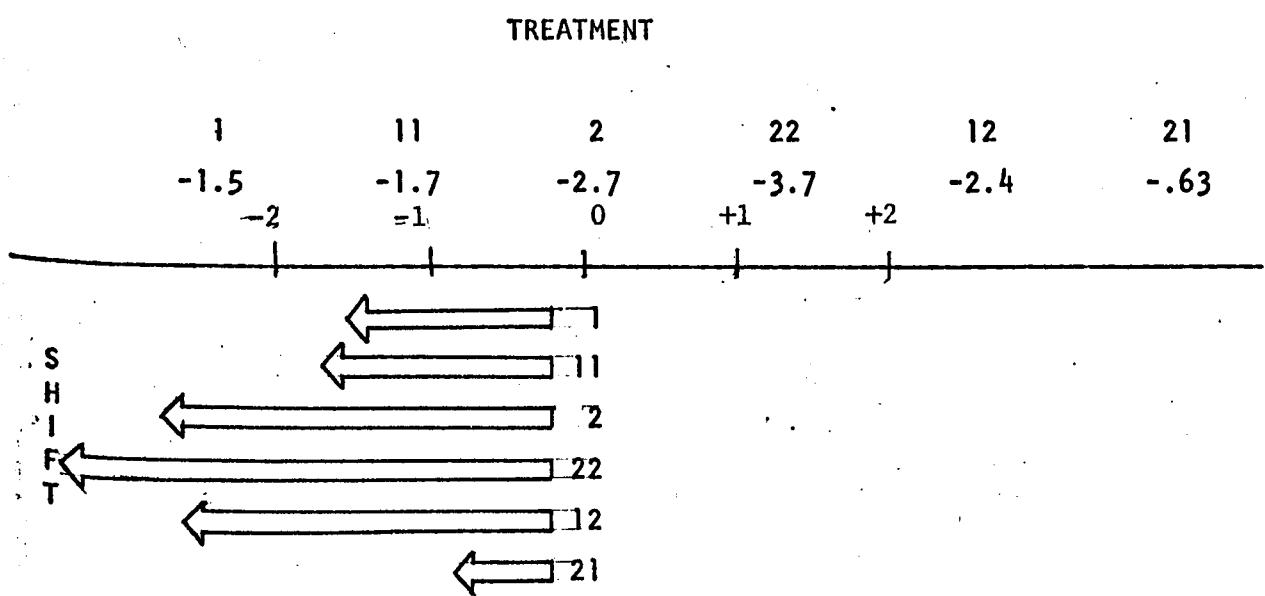
13. The main actors dimension was constructed by averaging changes on the scales which included judgements about police on demonstrators Ao(C)2, Ao(C)3, Ao(C)5, Ao(C)6.

14. This is most unusual as an actual count of the amount and durations of violent acts in these visuals shows the opposite result.

Fig. #6.16: Treatment Group Means for Perception of Communication Scales

		SCALES					
		Ao(c)1 Ambig.	Ao(c)2 Fav Pol	Ao(c)3 Fav Demo	Ao(c)4 Viol.	Ao(c)5 Pol Init	Ao(c)6 Demo Init
T	1	3.9	5.7	3.6	1.7	3.0	3.0
R	11	4.6	5.7	3.9	2.3	2.8	3.6
E	2	4.2	2.8	4.9	2.6	4.9	2.5
A	22	3.9	2.3	5.2	2.9	6.2	2.1
T	12	3.7	3.5	5.0	2.8	4.7	2.8
M	21	5.3	4.5	4.0	1.9	4.7	2.9
E							
N	\bar{x}	4.3	4.0	4.6	2.3	4.6	2.8
T							
Level of Signif. F Test	NS		.001	.001	.05	.001	.01

Fig. #6.17: Long Term Retention Shifts in Perception of Communication Scores for Main Actors Dimension



Long term retention of 'perception of communication' judgements are shown in Fig. 6.18, as the difference between the post-viewing and retention measures. In terms of the magnitude of the shift, the conditions which had the pro-demonstrator visual message shifted less than the pro-police visuals. All shifts however were in the direction of having remembered the broadcast as being more pro-demonstrator than immediately after the broadcast.

This result indicates that for all content biases of the story, after five weeks they are remembered as being more pro-demonstrator than immediately after viewing. The largest shifts in the pro-demonstrator direction are in those treatments which saw the pro-police film. The differences due to the visual bias however, might be explained by differential retention of pro-demonstrator and pro-police visuals. If, in the second judgement of the bias of the communication, and to the degree that the viewers have forgotten the impact of the pro-police visuals, it may be expected that their judgements shift more in the pro-demonstrator direction.

Impression Test

Figs 6.19, 6.19a display the mean frequency scores for the total impression matrix for treatments separately both before and after seeing the news broadcast. Subjects averaged about 50 responses in the matrix, with an average increase of 2.5 responses after seeing the film. Overall, subjects changed their responses in just under 20% of the matrix after seeing the news story. As predicted, there is a tendency for more changed responses in the bimodal condition (5.6 more changes) although this is not significant.

Figs 6.20, 6.21 illustrate the changes in the average total frequency and Information Transmitted Scores for modality comparisons. Change scores were calculated by subtracting the after from the before measurement means. For the total matrix, bimodal transmission results in a greater frequency of changed responses than does the unimodal transmission ($p > 0.05$). Similarly for the measure of information transmitted in these treatments, both uni-modal conditions result in a reduction of total information transmitted whereas both bimodal conditions result in an increase. The bimodal news story seems to influence the picture-phrase associations concerning the demonstration more than does the unimodal stories. This result

FIGURE NO.6.18 Average change (before minus after) on judgement of broadcast scales for groups.

	AMBIG.	FAV. POL.	FAV. DEMO.	VIOL.	POL. INIT.	DEMO. INIT.
T R E A T M E N T	1	2.8	3.2	2.0	-1.5	1.8
	2	3.4	-1.2	3.6	-1.9	3.8
	11	3.8	- .3	2.6	-2.7	1.7
	12	2.9	.3	4.1	-2.5	3.7
	21	4.3	1.6	4.3	-2.3	3.9
	22	3.2	-1.5	4.1	- .7	5.2
	TOTAL	3.5	.3	3.7	-1.9	3.5
	F LEVEL	NS	.01	.001	NS	.001
						.05

FIGURE NO.6.19 Frequency of response scores for Impression Pictures averaged for treatments.

	1	2	3	4	5	6	7	8	9	10	11	12
1	3.3	1.9	3.2	2.8	1.1	1.7	2.4	1.8	2.7	2.6	1.2	2.9
11	3.6	2.6	3.5	2.5	1.6	2.0	3.1	1.7	2.1	3.0	1.9	2.4
2	3.2	1.6	2.2	2.4	1.2	1.5	2.4	1.0	1.6	2.6	1.5	2.1
12	3.2	3.7	3.6	2.7	1.8	2.0	4.0	1.9	2.6	3.2	1.7	2.9
22	3.2	3.1	3.1	3.5	1.9	2.1	2.9	1.8	2.9	2.0	2.7	2.7
21	2.2	1.7	2.8	2.7	1.6	1.5	2.3	1.7	1.7	2.6	1.8	2.5

FIGURE NO.6.19.a. Mean number of changed Impression Test responses for treatment groups.

RESPONSE CATEGORY

	1	2	3	4	5	6	7	8	9	10	11	12
11	1.6	1.6	2.2	3.1	2.1	1.7	3.2	1.7	3.7	3.7	2.8	2.4
T	1	1.3	2.2	1.9	2.7	2.1	1.1	3.2	1.6	2.9	3.1	2.7
R	2	1.6	1.7	2.2	2.2	1.8	1.0	3.1	1.1	2.1	2.0	2.6
E	22	1.7	2.2	2.6	3.4	2.5	2.7	3.1	3.5	2.6	2.4	3.3
A	21	1.8	1.6	2.0	2.3	1.9	2.0	2.9	1.7	1.8	2.4	2.2
M												
M	12	2.2	2.0	2.4	3.5	3.1	2.2	3.0	2.6	2.6	3.4	2.9
E												

-279

FIGURE NO.6.20: Treatment means for total number of responses on Impression Test

TREATMENT				
	1	11	2	22
Before	54.8	51.5	40.5	48.4
After	57.5	59.5	46.8	47.5
Change	27.6	29.8	23.0	32.0

FIGURE NO.6.21 Means for treatments of change in information transmitted (before-after).

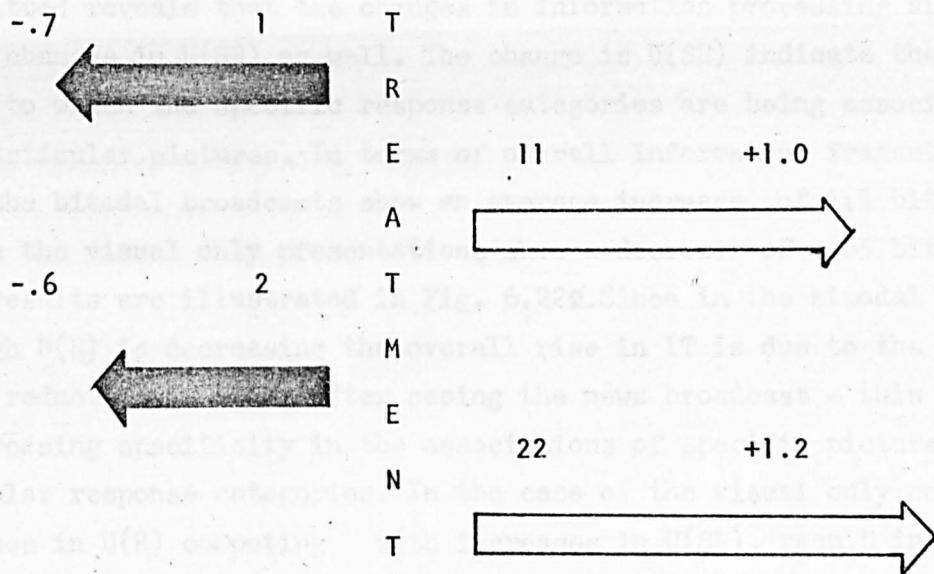


FIGURE NO.6.22: Means for Total U(R) by treatments.

TREATMENT				
	1	11	2	22
Before	5.49	5.37	4.62	5.22
After	5.63	5.50	5.1	5.89
Difference	-.14	-.13	-.48	-.67

$$\bar{x} = -.23 \text{ bits}$$

can be more specifically analyzed for the nature of these influences by examining the components of the information transmission score separately. Since $IT=U(S) + U(R) - U(S,R)$, and since $U(S)$ is constant for each condition, then an increase in IT is due to either a decrease in $U(R)$ or an increase in $U(SR)$ between the before and after conditions. Fig 6.22 displays changes in total mean $U(R)$ calculated by treatments. The average decrease in $U(R)$ over all subjects is .23 bits. However, there is a greater reduction in $U(R)$ in the pro-police bias (.58) than the pro-demonstrator treatments (.14). Since a reduction of $U(R)$ signifies a change in the distribution of responses amongst the response categories, it reveals a greater specificity in their use in the pro-police treatments. However, the patterns of total Information Transmitted reveals that the changes in information processing are due to changes in $U(SR)$ as well. The change in $U(SR)$ indicate the degree to which the specific response categories are being associated with particular pictures. In terms of overall Information Transmitted then, the bimodal broadcasts show an average increase of 1.1 bits, whereas the visual only presentations show a decrease of -.65 bits. These results are illustrated in Fig. 6.22a. Since in the bimodal treatments, although $U(R)$ is decreasing the overall rise in IT is due to the overriding reduction in $U(SR)$ after seeing the news broadcast - this means an increasing specificity in the associations of specific pictures and particular response categories. In the case of the visual only conditions, decreases in $U(R)$ competing with increases in $U(SR)$, result in a reduction of the amount of information transmitted. In this sense the combined effects of bimodality and bias are seen to interact in their effects on the Information Transmitted. The Bias of the story influences the distribution of responses in the response categories used; whereas the bimodality of the broadcast increases the specificity of the associations between pictures and response categories. However, the evidence is strong that bimodal presentations do in fact increase the amount of information transmitted by the receiver in terms of this Impression Test measure.

To examine further the changes in response categories due to the bias of the news story, the events described in the response categories were dichotomized in terms of their judged likelihood of leading to a situation in which 'police initiate violent action' (response 4,5,7,11)

Figure 6.22a: Treatment means for changes in information transmitted (IT), response uncertainty (U)R and stimulus response contingency (U(SR))

Treatments				
	1	11	2	21
IT	-.7	+1.0	-.6	+1.2
U(R)	-.14	-.13	-.48	-.67
U(SR)	-.56	+1.13	-.12	+1.87

FIGURE NO.6,23: Change in mean number of responses for treatment groups (between groups).

	Demonstrators Initiate Violence	Police Initiate Violence
BIAS	Pro-demonstrator	-.65
OF STORY	Pro-police	-.14

FIGURE NO.6,24 Response shifts for pro-demonstrator bias and pro-police bias treatment groups summated on a main actors dimension.

	TREATMENT	
	+Pol Version	+Demo Version
	2 1 22	1 1 11
-shift (+police)	42	84
+shift (+demo)	79	64
mean shift	.45	-1.14
	$\chi^2 = 13.1$	$P > .01$
	$T = 3.0$	$P > .01$

FIGURE NO. 6.25: Mean U(R) for treatment groups for +demo and +pol response categories

		TREATMENT			
		1	11	2	22
P O L I N I T I A T E	before	.60	.63	.56	.53
	after	.63	.70	.54	.54
	difference	-.03	-.07	+.02	+.01
<hr/>					
D E M O I N I T I A T E	before	.41	.42	.37	.38
	after	.43	.29	.44	.46
	difference	-.02	.13	-.07	-.08
<hr/>					

and demonstrators initiate violent action' (response 6,9,10,12).

Fig. 6.23 shows the mean scores as the frequency of changed responses for these categories displayed by treatment.

Although there is a slight overall reduction in the use of these categories, the amount of reduction varies with the bias of the film. The pro-demonstrator news story leads to a greater reduction in the use of 'demonstrator initiate violence' response categories; the pro-police story leading to a reduction in the police initiate violence response categories. The general trend is to a reduction in the frequency of use of those categories related to the bias not conveyed in the film. A further analysis of this effect can be done by examining the change in $U(R)$. Fig. 6.25 displays the treatment group means for change in $U(R)$ on these response categories (before-after). For the pro-demonstrator news stories the average increase is .05 bits per response category for the police initiate violence categories. Further an average reduction of .05 bits for the demonstrator initiate violence response categories is noted. On the other hand, those who saw the pro-police news story showed an average reduction in $U(R)$ of .02 bits for the police initiate violence categories. Although the effects of bimodal broadcast is to increase the amount of information transmitted, the bias of the film leads to a limitation on the use of response categories, but more specifically a reduction in the use of those response categories that are not indicated in the news story, and an increase in the ones that are.

Image Retention Test

Further analysis of visual information processing was carried out by means of the visual retention test. Pictures used in this test consisted of the twelve pictures from the Impression Test, plus eight control pictures that were taken from the original films but not seen by the subjects until the retention test. Of the Impression Test pictures three had appeared in the pro-police visual version only (pictures 4,8,16) and four had appeared in the pro-demonstrator visual version only (14,15,17,18). The rest of the Impression pictures were considered neutral in that they had appeared in both visual versions.

Similarly, two of the Control Pictures appeared in the pro-police visuals (5,13) and two in the pro-demonstrator visuals (1,2). Fig 4.26 displays both affirmative and negative retention responses for the Impression and Control picture sets. Fig. 4.27 shows these results expressed in terms of number of correct responses^{15.} A comparison of the Impression Test and Control pictures reveals that subjects are more likely to give an 'affirmative' response to those pictures they have seen in the Impression Test ($p > .01$), than to those which they have not seen before. Furthermore, they are more correct in those judgements of the Impression Test pictures (70% correct) than the Controls (41% correct). This latter result may indicate that since a greater number of pictures were in the film than not in it, an affirmative response is more likely to be correct. For this reason further analysis will be performed on the Impression Pictures and Controls separately.

Impression Picture Retention

Fig 6.28 shows the number of affirmative and negative responses for the treatment groups separately in terms of the different categories of picture. Fig. 6.28a shows the chi square matrix table for comparing the two film versions for affirmative and negative responses. The Chi square test was not significant showing that the nature of the bias made no difference to the number of affirmative responses. Fig 6.28b shows the table for comparison between visual bias treatment and frequency of correct response for combined pro-police and pro-demonstrator pictures only, and Fig. 6.28c shows a similar comparison for the Neutral pictures. Again there is no evidence that treatment effects result in increases in overall correct retention. However, from Fig. 6.28d it can be seen that the pro-demonstrator pictures are significantly better remembered correctly than the pro-police pictures. Further analysis of these correct responses reveal that they are related to the bias of the film seen. Figs 6.29, 6.29a reveal that a slightly better retention of the pro-demonstrator pictures is typical of those that saw the pro-demonstrator films. Moreover, the pro-demonstrator treatment groups make fewer correct responses to the pro-police pictures (ie.indicating they were not seen) than do the pro-police treatments for the pro-demonstrator pictures. Although the pro-police pictures were less well remembered than the pro-demonstrator ones, by those who had seen them in the film; the pro-police

15. A response is considered correct when the picture is remembered as having been in the newscast, and it in fact was, or when it is remembered as not being in the newscast, and it in fact wasn't.

FIGURE NO.6,26: Frequency of Affirmative and Negative response or Retention tests.

P I C T U R E	AFFIRMATIVE	NEGATIVE	% POSITIVE
impression	439	145	75%
neutrals	165	216	43%

FIGURE NO.6,27: Frequency of correct response or Retention test.

P I C T U R E	CORRECT	INCORRECT	% CORRECT
impression	383	168	70%
control	131	188	41%

FIGURE NO 6.28: Chi Square Tables for Image Retention Tests.

Fig# 6.28a

R E S P O N S E	TREATMENT	
	+Demo Visuals	+Pol Visuals
	+ve	228
	-ve	73
	$\chi^2 = 2.9$	$p = NS$

Fig# 6.28b

R E T E B I C T E A T S U R T I D E O N S	TREATMENT	
	+Demo Visuals	+Pol Visuals
	correct	83
	incorrect	80
	$\chi^2 = .4$	$p = NS$

Fig# 6.28c

R E T E N P I C T E U T T R I A O L N	TREATMENT	
	+Demo Visuals	+Pol Visuals
	correct	97
	incorrect	41
	$\chi^2 = 1.0$	$p = NS$

Fig# 6.28d

P I C T U R E S	RETENTION	
	correct	incorrect
	+Demo	108
	+Pol	66
	$\chi^2 = 4.9$	$p > .05$

Fig. #6.29 Chi Square Table for Number of Correct Retention Responses by Treatment Groups for + Demo, and + Pol Pictures separately.

TREATMENT

	11	21	12	22
+ Demo Pict	26	45	18	19
+ Pol Pict	8	4	21	33

$$\chi^2 = 30.8 \quad p > .001$$

FIGURE NO.6.29a; Chi Square table for correct responses in Visual Bias treatment conditions and different bias pictures.

		TREATMENT	
		+Demo Visual	+Pol Visual
P I C T U R E S	+Demo	71	64
	+Pol	12	54
		$\chi^2 = 12.3$	$p > .01$

pictures were harder to identify as not being seen by those who had in fact not seen them. These results indicate an interaction between the bias of the picture and a bias in the film for retention. The pro-police pictures were harder to identify correctly, and less well retained. The pro-demonstrator pictures were both remembered, and more easily identified as not seen.

Control Set

Fig. 6.30 shows affirmative and negative retention responses for the pro-demonstrator and pro-police pictures in the Control Set. The number of affirmative retention responses is generally less for these pictures than for the Impression test. The pro-demonstrator visuals treatment groups are correct on average 60% of the time whereas the pro-police visuals' treatment are about 40% correct; those subjects which saw the pro-police film made more incorrect responses, overall. ($\chi^2=12.7$, $p>.01$). Controlling for the bias of the pictures helped to reveal the nature of this incorrect retention; Although the subjects are equally likely to be correct in either treatment group if they have seen the pictures in the film, the pro-police subjects are more likely to report remembering pro-demonstrator pictures which they have not seen. The pro-demonstrator film resulted in more correct negative responses to the pro-police pictures.

In general, the retention tests results give a good indication that selection takes place in the long term retention of visual information. This selection depends both on the content of the picture and the bias of the film seen by the viewer. Pro-demonstrator pictures were more correctly identified when seen in the film than pro-police pictures. This might have been due to either the selective forgetting of the pro-police film or the more identifiable character of the pro-demonstrator photographs. However, since the pro-police film treatment subjects are more likely to report having seen pro-demonstrator pictures which in fact they had not seen, there is some indication that the pro-police visuals treatments are remembering the 'film' as having been visually more 'pro-demonstrator' after five weeks. This result is similar to a shift indicated by the 'perception of bias in the communication' scale.

FIGURE NO. 6.30: Control Set Pictures on Retention Test-Affirmative and negative retention responses by treatment groups.

		TREATMENT			
		+ Demo Visuals		+ Pol Visuals	
		+ 11	-	+ 21	-
+ Demo. Pict.		12	9	12	14
+ Pol. Pict.		6	15	5	20

		TREATMENT	
		+ Demo Visuals	+ Pol Visuals
RESPONSE	Correct	59	38
	Incorrect	.34	60

$$\chi^2 = 12.7$$

$$p > .01$$

Section 6.4:

Discussion and Conclusions

Much in keeping with the tradition of laboratory communications research, significant changes of opinion were found to be effected by manipulations of the content bias of the message. In this case, opinions about demonstrations—which in our culture must be considered deeply embedded in current attitudinal dispositions¹⁶—were influenced by different versions of a short, not overly forceful action visuals news story about a demonstration. As well, a clear relationship occurred between the initial opinion of the subject and the amount of opinion change on a specific opinion scale. This relationship is in keeping with a general consistency theory position. Across all treatment groups the assumption that effects of the content bias of the stories on opinions is roughly balanced out is in keeping with the no 'net' opinion change result. However, the more discrepant the initial position is from the neutral position, the greater shift of opinion in the neutralizing directions. In this sense, the aggregation of opinion change across populations, can frequently obscure differences in the direction of opinion change that results from a moderate communication, unless initial opinion is controlled for.

Although the main treatment effects were examined in terms of the 'main actors' dimension of opinions, it was noted that bias of different aspects of this dimension were influenced by the bias of news story differentially. The police qualities scale showed the greatest differences in the amount of opinion change between bias treatment groups, followed by the 'demonstrators initiate' violence scale. However, the different versions of the news story did not result in differential affects on the 'police initiate violence scale'. Neither did the influence of the news story on opinions about the 'effectiveness of demonstrations', or the role of 'students and radicals', depend to a great degree upon the bias of the news story.

The impression that is generated by this data is of a highly structured opinion set. Opinions about police initiating undue violence,

16. William A. Belson, *The impact of television; methods and findings on programme research*. Hamden, Conn.: Archon Books, 1967.

or acting brutally are unlikely to change; whereas the perceptions of the qualities of the policeman will undergo change as a result of news stories that show them in a bad light. On the other hand, opinions about whether demonstrators are initiating violence are likely to be influenced by the editorial bias of the story; whereas the perception of the qualities of the demonstrator are only minimally influenced. In the light of the work of Thiabault and Reiken(1955) and Maselli and Altrocchi(1969) on the attribution of intent, it might be suggested that within the context of a demonstration, police are regarded as constrained actors—they are only doing their job—whereas demonstrators are seen as initiators, in intentional control of their actions. When aggression occurs within the news story, it must be assimilated into this framework, and opinions are influenced accordingly.

When the pro-police and pro-demonstrators bias conditions are considered separately for their effects on the main actors dimension, the effect of the specific bias in the content is more evident, even though cancellation effects due to the varying initial opinions are still present. The net effect of the pro-police news story is to shift opinions in a pro-police direction. An opposite shift is the result of the pro-demonstrator news story.

Whereas, the specific initial opinion scales were found to be good predictors of amount and direction of change; general attitudes as measured by a modified F-scale were not found to predict direction or amount of change. Moreover, even the individual scales of opinion about demonstrations were not related to change on other similar scales. This result may indicate a higher degree of articulation within the attitude change system than usually thought. If such is the case, then the use of opinion scales of a more general nature may underestimate the specific nature of opinion change within subjects, resulting from particular communications about events. Suffice it to say that in this study, the amount of change on any opinion scale is only predicted from the initial position on that scale, and not from general attitudes about demonstrations, nor from measures related to the general 'world view' of the viewer.

However, the amount of change on several scales was intercorrelated. Specifically the 'main actors' dimension showed a pattern of a relatively

coherent opinion set, revealing the degree to which demonstrators and police are viewed as related 'actors' in a demonstration. It was by summatting across scales of this dimension of opinion about demonstrations that the effects of story bias were most clearly revealed in the data. What this opinion set may reveal then, is the past effects of an agenda, set by the media with regards to demonstrations; for as Halloran et al(1970) noted, the news coverage of demonstrations tended to personalize the sides and set them in opposition. There is some indication here, that this 'interpretive framework' used by the news agencies, was reflected in the interpretive set used by the subjects to process the news information. In this light it might also be worth noting that neither the 'force and its effectiveness' nor the 'students and radicals' scales underwent significant change as a result of the communication; although either version of the news story might have lent itself to such interpretations. Although this explanation for the results of the main actors dimension, gives credence to the notion that news broadcasting creates interpretive frameworks within its audiences —agendas —the rather limited, and young sample used in this study do not in themselves permit such a conclusion. These findings however, are in keeping with other survey studies which have shown a similarity between the interpretive framework for news events generated in media organizations and those found in audiences (Frank.1973).

The finding in this experimental study, that editorial changes in the news can lead to significant differences in opinion change, must be seen in the context of laboratory research. In the laboratory, careful control and measurement strategies encourage the researcher to unveil the more subtle influences of content, structure and format of news messages on opinions. In the field survey work, cancellation effects may obscure or minimize the importance of these variables. However, the result of this study are in keeping with those of Findahl and Hoijer(1972) and Frank(1973) who have begun to show similar influences of slight variations in the content and form of news broadcasts on opinions about news events. However, to those who are concerned with bias in the news, the clear demonstration of opinion change resulting from a news story and depending on the bias in that story, must be taken seriously.

One possible explanation for the amount of opinion change resulting from a short news story may lie in the credibility of the medium itself. It has been argued throughout this dissertation that television news has become the most relied upon and trusted source of 'information about the world' in our society. A variety of factors have worked together to make this so, particularly the visual immediacy of the presentation, that not only increases the amount of information about the source, making the newsmen seem more trustworthy, but also the sense of seeing the event for yourself in the action visual sequences. This when overlayed upon the institutional credibility of the media for balanced, objective and direct coverage makes the credibility of television news a factor in any study of opinion change from the news. In this study, not only was the initial high credibility of the media found in the subjects, but the direct effects of bias and inconsistency in the news message did not effect opinions about the general credibility of the media. There was no debunking of television news as a source, even when the story was bimodally inconsistent. Nor did the addition of a narration track to the news story have an effect on any of the credibility scales, even though it was seen to influence opinions. This result supports the notion that it is the visual presentation that makes the television news credible. Unfortunately in this study, a narration only control was not used and this hypothesis cannot be considered to have been adequately tested.

This does not mean that subjects do make judgements about the bias of the individual news story. These judgements of bias are reflected in the main actors dimension of the perception of the communication scales. The results on these scales mirror the influence of the treatment effects on affective-opinion scales. Subjects seemed aware of the direction in which their opinions were influenced; however, neither bimodal inconsistency, nor the addition of a narration track, influences the perception of the 'clarity' of the news story. It is most interesting that viewers did not notice the discrepancy between the bias in the visual channel and the bias in the narration. In addition, the perception of 'bias' in a news story does not seem to influence the perception of the fairness of the television news media as a source. The subjects opinions about the credibility of the media seem firmly ensconced.

The perception of the amount of violence in the pro-demonstrator stories is incorrectly judged as less than the pro-police stories, when compared to actual counts of violent incidents in the footage. This result, although peripheral to the main discussion, is worth noting because it calls into question the validity of 'counting violent incidents' as a means of assessing violent contents on television. However, there is an interpretation of this result that can be given when the 'context' of the violence is accounted for (Comstock and Rubenstein 1970). As pointed out earlier, the police are viewed as 'constrained actors' within the context of a demonstration. As such, they are unlikely to be viewed as the 'initiators' of violence. Given this opinion set, it is not surprising that the aggressive acts of the police, depicted in the visuals, are regarded as less violent than those of the demonstrators.

Possibly the most interesting result in this study was the finding that those editorial biases in the news story that influence opinion change may be conveyed by visual-imagistic information alone. Although the impact of the bias on opinions is enhanced by similarly biased 'voice over' narrations, the visuals-only version of the news story was sufficient to convey the specific meaning inherent in the inferential structure of the images. This result is reflected not only on the main actors opinion dimension, but also the perception of the communication scales. Additionally, the information transmitted score of the impression test reveals a reduction in the use of response categories as determined by the bias of the story. Long term visual retention is also indicated, with subjects able to identify pictures taken from the news story five weeks after viewing. Again the ability to recognize pictures was seen to depend upon not only the bias of the picture, but also on the visual bias of the story. These results confirm the notions put forward by film theorists such as Eisenstein(1975), Wollen(1969) and Isenhour(1974) about the processing of visual information from moving image sequences. It is both the content of the images, and the sequencing of the series of images that determine the meaning of the action visuals as arranged in the editing. If a scene showing demonstrators moving towards the police lines with arms linked is followed by a scuffle between police and demonstrators, then the effect on opinions is to increase the perception of the likelihood that demonstrators initiate violence. When a scene showing the police moving toward the crowd, or wading in with batons is

placed before the same scuffle, then the effect seems to be a negative evaluation of the police forces' qualities. A framework for understanding the inferential logic or 'grammar' of moving visual images is far from developed here. But at least an indication that such inferential structures as causality, intentionality or blame may in fact be conveyed by the visual sequences alone, is present.

Such a result entails, that in any analysis of television news broadcasting, both the audio-linguistic and visual-imagistic channels must be closely considered. It reinforces the position adopted by Frank(1973) and developed in Chapter 4 of this dissertation, that form of television news must be defined in terms that recognizes the importance of both the visual and linguistic dimensions of the news message. On this point we must disagree strongly with Pride and Wamsley(1972) that an adequate content analysis of the news can be achieved from a transcription of the voice over narration. Furthermore, it must be re-emphasized that the visual presentational style of a news story has consequences beyond merely making the story more interesting. A sequence of images has meaning of its own, and the information presented in this sequence is sufficient to influence attitudes.

It is therefore the combined effects of modality and story bias that emerge as the crucial variables of this study. The main actors dimension of the opinion-affect and perception of communication scales reveal the way these factors influence opinions. It emerges clearly in this study, that the addition of a voice-over narration with a similar bias in the visuals, increases the impact of the story on opinions and judgements, in the direction of the story bias. There is no evidence of distraction or divided attention for these consistent messages as might be imposed by limited channel capacity processing. Rather, these results give the impression that two distinct channels are in operation and the effects in this consistent condition is summative. This result is also reflected in the Impression test, where the bimodal conditions show an increase in the information transmitted, particularly due to the increasing specificity of the picture-response phrase associations.¹⁷ over the visuals only condition. Although the effects of the bias of

17. This may be indicative of separate bimodal processing with translation between channels as well. In fact, the Impression test measure of information transmitted estimates the between modality equivalence based on the contiguity of 'pictured event' and 'described event'.

the story is to decrease the use of response categories that are not in keeping with the bias of the story, in information transmission terms this is more than compensated for by the increasing specificity of the contiguous associations between pictures and event descriptions. The Impression test itself was designed for the purpose to include visual and linguistic information processes within an assessment of the impact of the news story. Although it is still a very crude device, by using cross-modal associations as a basis for measurement, it suggests a means of increasing sensitivity to the visual information transmitted in television news.

The inconsistent treatment conditions provide a means of assessing the relative impact of 'modality' and 'content bias' factors. In these treatments, although the amount of shift is slight and not significant, the relative direction of the shifts provide a basis for interpretations. It is particularly useful here to contrast the effects of inconsistency on affective-opinion and beliefs. For the main actors dimension of affective-opinion, the amount of opinion shift lies between the consistent bimodal conditions, indicating the averaging of the two modal biases. However, in the case of this scale, the averaging seems to weight the message in the visual channel more; the resulting shift though small, is in the direction of the visual bias. The opposite is true of the effects of modal inconsistency on beliefs. For beliefs, although averaging also seems to take place, it is the commentary that determines the direction of the shift. These results imply a possible difference between the impact of modal channels on the different components of attitude. The bias of the commentary has a greater impact on the cognitive or belief component of opinion, whereas the visual channel influences affective-opinion more. If this trend is generally applicable to news stories, then it might be reasonable to assert that the commentary is mainly responsible for providing the interpretation of the news event; yet it is the visuals that change the way the viewers feel about it. This particular sample of Art college students are not representative of the population at large. They are probably better

"imagers", and rely on visual information to a greater extent. It is not surprising then, that for these subjects the visual channel has a greater impact on affective opinion. Although this places a limitation on the generalizability of the results it is reasonable to believe that Art college students are not the only ones to adopt an information processing strategy that emphasizes visual imagery. Although one may be loathe to admit, it may be that McLuhan is right. The very use of television, with its emphasis on visualization, demands a processing strategy that gives priority to the visual channel. There is the possibility that this equation of visual processing with effects on 'affective' opinion change, is a typical and significant result of increased television viewing itself. The possibility merits further research.

The above interpretation may help to explain the main anomoly in the data. In the pro-police, visuals-only treatment, the belief shift was in the pro-demonstrator direction. It seems that, when an interpretive framework was not provided by the commentary, beliefs changed in the direction opposite to that of the visuals. Why should this be so?

Again, considering the composition of the sample, an explanation may be proffered. Younger persons, and students are more favourably disposed to demonstrators and less likely to be positively disposed to the police (Halloran et al 1970, Belson 1975). When the distribution of the initial opinions of this sample is considered, they also indicate a slight pro-demonstrator bias; all means for the Main Actors scales are to the pro-demonstrator side of the neutral point. There may be a slight pro-demonstrator bias in the sample population, at least enough so that when no other interpretive framework is offered linguistically in the news, the story will be interpreted within this pro-demonstrator framework.

There is other evidence that lends support to this notion. For the retention measure of the perception of communication scales, it was noted that the news story, is remembered as being more pro-demonstrator after 5 weeks, than immediately after viewing. This is true irrespective of treatment condition. There may be two explanations of such a sleeper effect. The first might entail assimilation of the message about demonstrations into the already established opinion system; as the message fades in memory, over time it strengthens the slight pro-demonstrator

predisposition. This implies a reinforcement effect.

A second explanation, can be inferred from the phenomena centering around the retention of images, as illustrated by the recognition of photographs. In these tests the pro-demonstrator pictures were better retained after five weeks than the pro-police pictures. Such a result indicates that the pro-demonstrator visuals had a greater latency in memory. In addition, for the control retention test, the subjects which saw the pro-police visuals were more likely to report having seen pro-demonstrator pictures which they had not in fact seen in the film. These results raise not only the possibility of a visual selective memory process, but also of a tendency of these selective images to press towards assimilation within the opinion framework over a period of time. In this study a more exacting analysis of the effects of initial opinion on selection processes was not possible given the small numbers in each treatment group. However, the indications are that selection and retention processes, in particular imagistic selection processes may be an important factor for explaining long term attitudinal change effects.

Another interpretation can also be offered for the effects of treatment on belief component change. It is possible that visual information has very little effect on the belief components of attitude. Beliefs it would seem, with their measurement based in exact probabilistic propositional statements about objects and their attributes, may be heavily weighted towards, or embedded within the linguistic dimensions of the cognitive system. As such, in the viewing of television news, when the narration is present it may provide the framework for the translation of the visual information into the linguistically coded system and hence reinforce consistent information transmitted in the audio. When the modalities are inconsistent then it is the linguistic centred message in the sound track that has the greatest influence on beliefs. When no narration is present, then either little effect on beliefs or reinforcement of previous beliefs and opinion frameworks might be expected. Such an interpretation would be in keeping with a good many of the image retention studies (Paivio 1971, Bower 1972) and can be thought of as supporting a recode or translation model of processing, if it is assumed that recall measures are predominantly tapping

the lexical cognitive dimensions.

However, this does not seem to be the whole story with regard to bimodal information processing. When attitudes are considered, and an evaluative or affective component measured for affective opinion measures, it is the visual imagistic information which dominates in opinion change, and to a considerable degree does so independently of the sound track, seemingly without the necessity of translation into linguistic or propositional based codes, and possibly without even conscious awareness of how the images have come to influence attitudes. Such a result is in keeping with a dual channel processing model of Horowitz(1970) and Eisenstein (1957) who predicted that the visual channel would have greater effects on the emotive aspects of thought. Certainly, in terms of the implications of such findings, not only for television news broadcasting but for many aspects of the study of the effects of television, these general notions deserve more detailed research.

CHAPTER SEVEN

SUMMARY AND OVERVIEW

This dissertation is an examination of the implications of the audio-visual character of television news broadcasting. Within it, two studies have raised a number of issues concerned with factors which influence both the production of the news and its impact on viewers. In this brief chapter, I will attempt to summarise the findings and put the research activity as a whole into perspective.

The first issue that must be raised is the one which motivated the choice of television news as the object of this enquiry. My personal concern with television news stemmed from my familiarity with television production, through which I had become convinced of the compelling nature of the "symbolic" reality that television manufactured as 'truth in the news'. Most media practitioners are well aware of the malleability of 'reality' as witnessed through the camera; yet few expressed any real concern for its' influence on news broadcasting. However, by the late nineteen sixties (possibly spurred by other graduate students rushing home to watch themselves demonstrate on television) this same concern was rapidly becoming an issue of major social significance. Since that time, television news has become the focus of considerable research interest. Behind this interest is the same perception—that television news provides a selective picture of reality. Although this bias is not sufficient in itself to motivate concern, when coupled with the viewer's dependence on television as their main source of information, the one which they treat as most reliable and trustworthy, it becomes a significant issue.

Although such reasons provided motivation for research into television news, they did not help to define the frame of reference within which to carry out such an investigation. The tendency was for research in this field to be fragmented; separate investigations were undertaken into the broadcasting organizations as the causes of the bias, others into the manifestation of bias in various news contents, and still others into its effects on viewers. Few studies attempted to fuse these various approaches together and provide a 'holistic' description of television news as a total communication process, capable of both macro and micro analysis. Little wonder, for without the guidance of an inter-

disciplinary theory, both the enormity and complexity of this task is forbidding, particularly to the lone researcher. In viewing this problem, it seemed to me necessary to focus the scope of the investigation, hopefully without sacrificing too much, the breadth in the analysis appropriate to television news as a social phenomena.

Therefore, to guide this research, a conceptual framework was developed which was much influenced by my personal experience in media production. The central theme of this framework was the perception that the audio-visual nature of television was crucially related to both the production of news and its impact on the viewer. This was not a McLuhanesque adoption of technological determinism, but rather a practical realization that without a medium there is no message, and that the characteristics of the medium are fundamental to the shaping of its messages. It was the implications of this audio-visual character of the television technology, as it had developed within the specific cultural context of western societies, that might explain both the bias within television news and the effects of the news on viewers. For this reason, the investigation started by viewing news as a cultural phenomenon, as a media form, developing historically within the socio-economic and institutional environment of modern industrial society. It became apparent that the unique ability of television to bring to the home the news in visual form, succumbed to the same pressures that lead television to be the predominant medium of entertainment and advertising. The institutional, economic and cultural factors combined to shape the social role of the media by making competition for audiences the very essence of all programming. Yet, at the same time, society imposed restraints upon the presentation of television news by demanding impartiality in news coverage. The visual component of the news synthesized these factors. Visualization added to the attractiveness of the news programme and also to the authority and immediacy required of an unbiased observer of events. The cultural impact of visualizing the news was the twin trends of dependence on the news as a source of information and its high credibility for the viewers.

Given the importance of competition for audiences as an influence on the production of news programmes, it was reasoned that the cultural factors which changed the relationship between the audience and the broadcasting organization, might result in differences in the news programme.

Particularly, it was considered that the degree of commercialization of a broadcast system would be a major determinant of the extent to which entertainment oriented visualization and presentational style are featured in the newscast. The cultural settings of Britain, Canada, and the United States provided a suitable situation to test this hypothesis because of a graduation in the degree of commercialization entailed within these countries' institutional structures for broadcasting.

On the other hand, all television news broadcasting takes place within large highly centralized network organizations. The split between the audio and visual components of the technology is matched by a division of the roles and values within the social structure of the news production process. Visual roles, those involved with the gathering and editing of the visuals, work within the filmic orientation to the "production values" of immediacy and entertainment; whereas the journalistic roles of investigating, writing and editing the story, operate within the values of balance, accuracy and objectivity in the news. Within the organization as a whole, mediated by the policy set by executives, these dual tendencies are resolved by implicit and standardised task definitions which integrate the form and content of the news story into a whole, while assuring the smooth functioning of the organization. In this sense the news values that are applied in production, although not uniformly throughout the organization, subsume both content and format decisions. The implications of this highly formalised production process, when viewed within the competitive yet mutually dependent inter-organizational setting of a given country, seemed to result in a standardization in the selection of news items, yet in an individuation of style in the production of news. It was hypothesized, that although motivated by somewhat different organizational goals, the differences between the news of the public and private networks would show themselves mainly in the visual style of news presentation.

It was these factors, that the first study sought to examine. A code was developed to categorize the format and contents of television news. This code was used to compare the news of public and private broadcast networks, and also across cultural settings. The results tended to confirm the hypotheses. The three countries did differ in both

the content of the news, and the treatment that different contents received in the coverage. The more commercial the settings were, the more they tended to stress the entertainment component through an emphasis upon action visuals, and the newsreader as the predominant personality. These visual dimensions of the news format varied most in the coverage between countries, although cultural sensitivities to particular issues also seemed to manifest themselves in the use of the more impartial formats for different issues. On the other hand, in the mixed broadcasting situations of Canada and Britain, public and private networks showed little difference in their news programme. Rather, it appeared that all networks were responding, sometimes in stylistically different ways, to the shared pressure of utilizing the visuals to produce exciting television news and fulfil perceived audience demand.

In the light of this research, our concern with 'bias in the news' must undergo some transformation. Previous research has tended to conceptualize bias in terms of specific content selection procedures that take place within the news organization. In this usage, bias is identified with both the selective coverage of specific events and the latent qualities of the verbal interpretation of the newscaster. However, the present study shows that bias in the story not only occurs in the content but also in the style of production through the character of the visuals.

However, the investigation cannot stop at this point. Proof of a bias in the story content and format is not identical with proof of its impact on the audience. Research into the agenda setting function has shown that emphasis on particular contents frequently result in the increased importance attached to such issues by viewers. But what is entailed by different biases in the presentational style? These biases in style will only be important to the degree to which they influence the impact of the news story as well. An example helps to clarify why this may be the case. Consider for the moment the differences between a "Balance Story format" and a "Visuals Inference format". In the balanced story the viewer is presented with two interviewees, each taking opposing sides on an issue. The same issue, however, covered by action visuals sequence, depicts the issue visually while the newscaster interprets it in the commentary. It may be argued that the presentation of

both sides in the balance story, offers the opportunity for selective perception. On the other hand, the action visuals' presentation, might increase the acceptance of the authoritative newscaster's interpretation of the event. It seemed necessary therefore to understand the impact of presentational style upon the way the viewer perceived and thought about the event. Two elements in the presentational style of news stood out as particularly needing investigation. The first concerned the importance of the information transmitted about the presenter as the source of the news item. In the light of available literature on inter-personal judgement it seemed reasonable to conclude that the visibility of the newscaster, and those interviewed in the news, were important factors in making the news credible. In addition, it seemed that the manner in which the various news persona are photographed might influence the different dimensions which make up the judgements of source credibility. This becomes important to the extent that variations in these dimensions of source credibility influence attitude change.

A further aspect of presentational style was the object of the second study undertaken here. This study was concerned with the effects of a visual channel of information about the event on opinion change. It examined whether added visual information increased the impact of the news story by systematically varying the bias in the news story in six experimental conditions. In this way, the study examined the influences of the different content bias of the story in the visual only condition, and when the bimodal channels were both consistent and inconsistent, on affective opinion change, beliefs, and image retention. The results showed that not only did the visual information increase the impact of the news story upon opinion change, but also that the separate verbal and visual components of the story, influenced different aspects of opinion change. When the bimodal information was inconsistent, the visual information exerted more influence on the affective component of opinions, whereas the commentary influenced beliefs.

This research, therefore, raises a general issue concerning the role of the action visuals in news programmes. Given that the visualization of the news story entails greater influence on the affective components of opinion than on beliefs of viewers, one might speculate that the general consequences of this treatment of the story enables the viewer to feel the impact of the event, rather than understand it. If this is so, it might

help to explain poor retention of the news story, since in the action visuals, the news is not really conveying information, but rather creating an 'emotional' impact.

A remarkable resonance therefore, seems to be created in the news broadcasting system as a whole. The structure of the broadcasting organizations influenced by the pressures of the cultural context, lead to the varying emphasis on the audio and visual components of the news message. The visual emphasis is to production values and exciting visuals: the audio emphasis is to objectivity, neutrality and balance. Yet these same bimodal components are found to be processed differentially by the receiver; exciting visuals amplify the effect of the story on the affective component of opinions, and factual and terse commentary accentuating the effects of the narration on beliefs.

By implication, this research may demand that the concept of bias needs to be enlarged, to include not only the presentational style of the story but also the notion of a bias within the very structure of television news broadcasting. This is the same sense in which Innis(1951) discussed the bias in a culture that derives from the use of specific communication technologies. For television news broadcasting, visualisation can be regarded as having such a biasing effect, manifesting itself not only in the contents and form of television news, but in turn, on the high credibility of the news programme and the daily consumption of emotional reactions to the events shown in the news.

Another issue, methodological in nature, is also raised by this study, namely the extent to which these experimental findings can be used to generalise about the effects of news broadcasting. The concern is whether sufficient ecological validity can be achieved in the experiment whilst maintaining the control and sensitivity necessary to examine the specific interactions of modality, and content bias. Although every effort was made to ensure realistic contents and formats for the stimuli by using the footage and style of a BBC news story, there is a problem in the nature of the viewing situation. The magnitude of the effects of the experimental manipulations on opinion change, which seemed surprising from such a short news story, may result from the fact that the news story was shown independently—out of the context of the whole news programme. To test this possibility would require the measurement of

change resulting from stories embedded within real news programmes. If the magnitude of opinion effects of such presentational factors as are suggested here, persist, then the issues identified in this research are of considerable importance to those concerned about the 'bias' in the news.

It seems likely, on the other hand, that the effects of presentational style on opinions would not be detected by using a post opinion survey study, for there might be cancellation effects in the measurement of net opinion. This can be overcome only if initial opinion is taken account of in the examination of the effects of specific communications. This is rarely possible in survey research. It is the sensitivity of the measures employed, when combined with the ability to control crucial variables, that allows laboratory research to "tease out" effects that can be overlooked in other forms of research. These advantages make the experimental approach an important element in a strategy for communication research, if the variables controlled in the experiment are grounded in an analysis of the whole communication process and the findings further tested in the field research.

Bibliography

Abelson, R., Aronson, G., McGuire, W., Newcomb, T., Rosenburg, M., and Tannenbaum, P., eds. Theories of cognitive consistency: a sourcebook. Rand McNally, Chicago, 1968.

Abercrombie, D.

Paralanguage. In John Laver and Sardi Hutcheson, eds., Communication in face to face interaction, pp. 64-70. Harmondsworth: Penguin, 1972.

Ackoff, L.

Systems, organizations and interdisciplinary research. In F.E. Emery, ed., Systems thinking: selected readings, pp. 330-347. Harmondsworth: Penguin, 1969.

Agnew, Spiro

Des Moines speech on television news bias. In William Hammel, ed. The popular arts in America: a reader, pp. 195-203. Harcourt, Brace, Janovich, New York: 1972.

Allport, G., and Cantrill, H.

Judging personality from voice. In John Laver and Sardi Hutcheson, eds., Communication in face to face interaction, pp. 155-171. Harmondsworth: Penguin, 1972.

Anderson, Charles M. (1972)

In search of a visual rhetoric for instructional television. Audio Visual Communication Review, 20, 43-63.

Anderson, D.H.

Cognitive algebra: integration theory applied to social attribution. In Leonard Berkowitz, ed., Advances in experimental social psychology, pp. 1-107.

Academic Press, New York, 1974.

Andreski, Stanislav

Social sciences as sorcery.

Middlesex: Penguin, 1972.

Appelbaum, Ronald F., and Anatol, Karl E. (1972)

The factor structure of source credibility as a function of the speaking situation. Speech Monographs, 39, 216-222.

Appelbaum, Ronald F., and Anatol, Karl E. (1974)

A rejoinder. Speech Monographs, 41, 295-298.

Argyle, Michael

Social interaction, reader in social psychology.

Tavistock Publications in association with Methuen and Co. Ltd., London, 1969.

Argyle, Michael

The syntaxes of bodily communication. In Jonathan Bentall and Ted Polhemus, eds., The body as a medium of expression: essays based on a course of lectures given at the Institute of Contemporary Arts, London. Dutton, New York, 1975.

Argyle, M., and Dean, J. (1965)

Eye contact, distance and affiliation. Sociometry, 28, 289-304.

Argyle, M., Salter, V., Nicholson, H., Williams, M., and Burgess, P. (1969)
The communication of inferior and superior attitudes by verbal
and non-verbal signals. British Journal of Social Clinical Psychology,
9, 222-231.

Argyle, M., Albee, R., and Gilmann, R. (1971)
The communication of hostile attitudes by verbal and non-verbal
signals. European Journal of Social Psychology, 1, No.3, 385-402.

Armistead, Nigel ed.
Reconstructing social psychology.
Harmondsworth: Penguin Education, 1974.

Arnheim, Rudolph
Visual thinking.
University of California Press, 1969.

Ashby, W.R.
Self-regulation and requisite variety. In F.E. Emery, ed.,
Systems thinking; selected readings, pp. 105-124.
Harmondsworth: Penguin, 1969.

Attneave, Fred
Applications of information theory to psychology.
Holt, New York, 1959.

Babska, Zofia
The formation of the conception of identity of visual characteri-
stics of objects seen successively. In Cognitive development in
children: five monographs of the Society for Research in Child Development,
pp. 677-689. University of Chicago Press, Chicago, 1970.

Barnlund, Dean C.
Interpersonal communication; survey and studies.
Houghton Mifflin, Boston, 1968.

Barrett, Alan (1976)
Differential encoding as a function of semantic polarity and
form of visual stimulus presentation, Memory and Cognition, Vol 4(2),
139-143.

Barthes, Roland
Elements of semiology. Trans. by Annette Lavers and Colin Smith.
Cape, London, 1967.

Bateson, Gregory
Steps to an ecology of mind.
Paladin, St. Albans, 1973.

Baumann, Zygmunt
A note on mass culture: on infrastructure. In Denis McQuail, ed.,
Sociology of mass communications; selected readings, pp. 61-74.
Harmondsworth: Penguin, 1972.

Belson, William A.
The Public and the Police.
Harper and Row, London, 1975.

Bennis, W.G.
The failure and promise of the social sciences. In J. Thomas and
W. Bennis, eds., The management of change and conflict, pp. 7-37
(introduction). Harmondsworth: Penguin, 1972.

Berelson, Bernard

Content analysis in communication research. In Bernard Berelson and Morris Janowitz, eds., Reader in public opinion and communication, 2nd ed., pp. 260-266. Collier-Macmillan Ltd., Toronto, 1966.

Berger, John

Ways of seeing. BBC and Penguin Books, London, 1972.

Berlo, David K., Lement, James B., and Mertz, Robert J. (1970)

Dimensions for evaluating the acceptability of message sources. Public Opinion Quarterly, 33, 563-576.

Bettman, James R., Capon, Noel, and Lutz, Richard J. (1975)

Information processing in attitude formation and change. Communication Research, 2, 267-278.

Birdwhistell, Ray L.

Kinetics and context, essays on body-motion communication. Harmondsworth: Penguin, 1970.

Bishop, Robert L., Boersma, Mary, and Williams, John. (1969)

Teen-agers and news media: credibility canyon.

Journalism Quarterly, 46, 597-599.

Blumler, J.

Producers attitudes towards television coverage of an election campaign - a case study. In Jeremy Tunstall, ed., Media sociology: a reader, pp. 411-438. Constable, London, 1970.

Blumler, J., and McQuail, D.

Television in politics.

Faber and Faber, London, 1968.

Blumler, Jay G. and McQuail, Denis.

The audience for election television. In Jeremy Tunstall, ed., Media sociology; a reader, pp. 452-478.

Constable, London, 1970.

Bogart, Leo

The growth of television. In Wilbur Schramm, ed., Mass communications, 2nd edition, pp. 95-111.

University of Illinois Press, Chicago, 1960.

Boorstin, D.S.

The image: a guide to pseudo-events in America.

Harper, New York, 1964.

Booth, Alan (1970)

The recall of news items. Public Opinion Quarterly, 34, 604-610.

Bower, Gordon H.

Mental Imagery and associative learning in Gregg, Lee ed.

Cognition in Learning and Memory.

John Wiley and Sons, New York, 51-88, 1972.

Bower, Gordon H. (1970)

Analysis of a mnemonic device. American Scientist, 58, 469-510.

Breed, Warren

Social control in the news room. In Wilbur Schramm, ed., Mass communications, 2nd edition, pp. 178-194.

University of Illinois Press, Chicago, 1960.

British Broadcasting Corporation
BBC Handbook. Whitefriars Press, London, 1972.

Broadbent, Donald E.
Perception and communication.
Pergamon Press, New York, 1958.

Brown, Les
Television. The business behind the box.
Harvest, Harcourt, Brace, Javanovitch, 1971.

Brown, Roger L.
Approaches to the historical development of mass media studies.
In Jeremy Tunstall, ed., Media sociology: a reader, pp. 41-57.
Constable, London, 1970.

Bruner, Jerome S. (1957)
On perceptual readiness. Psychological Review, 64, 123-152.

Bugelski, B.R.
The definition of the image. In Sydney Segal, ed., Imagery: current cognitive approaches, pp. 49-68.
Academic Press, New York, 1971.

Burgelin, Olivier
Structural analysis and mass communication. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 313-328.
Harmondsworth, Penguin, 1972.

Burns, Kenton L., and Beier, Ernst G. (1973)
Significance of vocal and visual channels in the decoding of emotional meaning. The Journal of Communication, 23, 118-130.

Burns, Tom
Public service and private world. In Jeremy Tunstall, ed., Media sociology: a reader, pp. 135-157.
Constable, London, 1970.

Burns, Tom
Commitment and career in the BBC. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 281-310.
Harmondsworth, Penguin, 1972.

Bruner, Jerome (1957)
On Perceptual Readiness, Psychological Review, Vol 64(2), 123-150.

Carpenter, Edmund Snow, and McLuhan, Marshall, eds.
Explorations in communication, an anthology.
Beacon Press, Boston, 1966.

Carroll, John B. (1964)
Words, meanings and concepts. Harvard Educational Review, 34, 178-202.

Carter, Richard F., and Greenberg, Bradley S. (1965)
Newspapers or television: which do you believe?
Journalism Quarterly, 42, 29-34.

Chang, Lawrence K.H., and Lemert, James B. (1968)
The invisible newsman and other factors in media competition.
Journalism Quarterly, 45, 436-444.

Cherry, Colin
On human communication; a review, a survey, and a criticism.
MIT Press, Cambridge, Mass., 1957.

Chisman, Forrest P.
Politics and the new mass communication. In G. Gerbner,
L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 521-531.
Wiley, New York, 1973.

Cicourel, Aaron
Cognitive sociology; language and meaning in social interaction.
Harmondsworth, Penguin Education, 1973.

Clark, Herbert, and Chase, William (1972)
On the process of comparing sentences against pictures.
Cognitive Psychology, Vol. 3, 472-517.

Clarke, Peter, and Kline, F. Gerald. (1974)
Media effects reconsidered, some new strategies for communication research. Communication Research, 1, 224-240.

Cline, Victor B., Atzet, Jon, and Holmes, Elaine.
Assessing the validity of verbal and non-verbal cues in accurately judging others. In David Speer, ed., Non-verbal communication, pp. 7-18.
Sage Publications, Beverly Hills, California, 1972.

Cohen, Gillian (1973)
How are Pictures Registered in memory. Quarterly Journal of Experimental Psychology, 25, 557-564.

Comstock, George and Rubinstein, Eli
Television and Social Behavior, the Surgeon General's Research Program on television and social Behavior, 1970.

Cook, Mark
Interpersonal perception.
Penguin, London, 1971.

Cooper, Eunice, and Jahoda, Marie
The evasion of propaganda: how prejudiced people respond to anti-prejudice propaganda. In Daniel Katz, Daniel Cartwright, Samuel Eldersveld, and Alfred McLung Lee, eds., Public opinion and propaganda, pp. 313-319. Holt, Rinehart and Winston, New York, 1954.

Culbertson, Hugh (1974)
Visual Detail, Sensationalism and perceived writer stand.
Journalism Quarterly, Spring, 79-90.

Culbertson, Hugh M. (1974)
Words vs. Pictures: perceived impact and connotative meaning.
Journalism Quarterly, 51, 226-237.

Curran, James
The impact of TV on the audience for national newspapers. In Jeremy Tunstall, ed., Media sociology: a reader, pp. 104-131.
Constable, London, 1970

Davitz, J.

The communication of emotional meaning.

McGraw Hill, New York, 1964.

De'ath,

News or Entertainment at 10.

The Observer, June 25th, 1975.

The Davey Committee,

Good, bad, or simply inevitable? Selected research studies.

Report of the Special Senate Committee on Mass Media, Vol. III

Ottawa: Information Canada, 1970.

The Davey Committee,

The uncertain mirror: Report of the Special Senate Committee on Mass Media, Vol. I Ottawa: Information Canada, 1970.

Day, Robin

As quoted in Tunstall (1970).

De Fleur, Melvin L. (1966)

Mass communication and social change. Social Forces, 44, 314-326.

Dornbush, Rhea L. (1968)

Shadowing in bisensory memory. The Quarterly Journal of Experimental Psychology, 20, 225-231.

Dwyer, Francis M. Jr. (1970)

Exploratory studies in the effectiveness of visual illustrations. Audio Visual Communication Review, 18, 235-249.

Eisenstein, Sergei

Film form and film sense.

Meridian Books, New York, 1957.

Ekman, D., and Friesen, W. (1969)

Origin usage and coding: the basis of five categories of non-verbal behaviour. Sennotiea, 1, 49-98.

Elliot, Phillip

Selection and communication in television production - a case study. In Jeremy Tunstall, ed., Media sociology: a reader, pp. 221-238.

Constable, London, 1970.

Emery, F.E., and Trist, E.L.

The causal texture of organizational environments. In F.E. Emery ed., Systems thinking: selected readings, pp. 241-257.

Harmondsworth: Penguin, 1969.

Emery, F.E., and Trist, E.L.

Socio-technical systems. In F.E. Emery, ed., Systems thinking: selected readings, pp. 281-296.

Harmondsworth: Penguin, 1969.

Emmett, B.P. (1966)

The design of investigations into the effects of radio and television programmes and other mass communication. Journal of the Royal Statistical Society, 129, Part 1, 26-49.

Emmett, B.P.

The television and radio audience in Britain. In Denis McQuail, ed. Sociology of mass communications: selected readings, pp. 195-219.

Harmondsworth: Penguin, 1972.

Epstien, Edward

News from nowhere; television and the news.

Vintage Books, New York, 1974.

Erskine, Hazel (1970/71)

The polls: opinion of the news media. Public Opinion Quarterly, 34, 630-634.

Fearing, Franklin

Toward a psychological theory of human communication. In Dean C. Barnlund, Interpersonal communication: survey and studies, Houghton Mifflin, Boston, 1968.

Fearing, Franklin

Influence of the movies on attitudes and behaviour. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 119-134. Harmondsworth: Penguin, 1972.

Findahl, Olle

The effect of visual illustrations upon perception and retention of news programmes. The Swedish Broadcasting Corporation Audience and Program Research Department, 1972.

Findahl, Olle, Hansson, Gote, Hoijer, Brigitta, and Hoijer, Bjorn.

Man as receiver of information. The Swedish Broadcasting Corporation Audience and Program Research Department, 1969.

Findahl, Olle, and Hoijer, Brigitta,

Man as receiver of information. Repetitions and reformulations in a news program : a study in retention and audience perception. The Swedish Broadcasting Corporation Audience and Program Research Department, 1972.

Findahl, Olle, and Hoijer, Brigitta

Man as receiver of information. An analysis of errors in the recollections of a news program. The Swedish Broadcasting Corporation Audience and Program Research Department, 1973.

Fishbein, Martin and Hunter, R (1964)

Summation vs. Balance in attitude organization and change. Journal of Abnormal and Social Psychology, Vol. 69(5), 505-510.

Fishbein, Martin, comp.

Readings in attitude theory and measurement.

Wiley, New York, 1967.

Fishbein, Martin

The prediction of behaviors from attitudinal variables. In C.D. Mortensen and K. Sereno, eds., Advances in communication research, pp. 3-31. Harper and Row, New York, 1973.

Fishbein, Martin, and Ajzen, Icek (1972)

Attitudes and opinions. Annual Review of Psychology, 23, 487-544.

Forsdale, Joan Rosengren, and Forsdale, Louis (1970)

Film literacy. Audio Visual Communication Review, 18, 263-277.

Fowler, Joseph S., and Showalter, Stuart W. (1974)

Evening network news selection: a confirmation of news judgment. Journalism Quarterly, 51, 712-715.

Frank, Robert

Message dimensions of television news.

Lexington Books, Lexington, Mass., 1973.

Frank, Robert S. (1974)

The 'grammar of film' in television news. Journalism Quarterly, 51, 245-250.

Frenkel-Brunswik, Else

Interaction of psychological and sociological factors in political behavior. In Daniel Katz, Daniel Cartwright, Samuel Eldersveld, and Alfred McLung Lee, eds., Public opinion and propaganda, pp. 363-380.

Holt, Rinehart and Winston, New York, 1954.

Funkhouser, G. Ray (1973)

The issues of the sixties; an exploratory study in the dynamics of public opinion. Public Opinion Quarterly, 37, 62-75.

Galtung, Johan, and Ruge, Mari Holmboe

The structure of foreign news. In Jeremy Tunstall, ed., Media sociology: a reader, pp. 259-298.

Constable, London, 1970.

Gans, Herbert

The sociologist and the television journalist, observations on studying television news. In J. Halloran and M. Gurevitch, eds., Broadcaster researcher cooperation in mass communication research, pp. 89-103. University of Leicester Press, 1968.

Gans, Herbert J.

How well does TV present the news? In William Hammel, ed., The popular arts in America: a reader, pp. 205-219.

Harcourt, Brace, Janovich, New York, 1972.

Garner, W.R. (1970)

The stimulus. American Psychologist, 25, 350-358.

Garner, Wendell

Uncertainty and structure as psychological concepts.

Wiley, New York, 1962.

Gaskell, G.

The Structure of impression formation and the contribution of verbal and non-verbal signals to impressions. Department of Social Psychology, London School of Economics, 1974.

Gehring, Robert, Toglia, M., Kimble, Gregory (1976)

Recognition memory for words and pictures at short and long retention intervals. Memory and Cognition, Vol. 4(3) 256-260.

Gerbner, George

Mass media and human communication theory. In Denis McQuail, ed., Sociology of mass communications: selected readings, pp. 35-60.

Harmondsworth: Penguin, 1972.

Gerbner, George

Cultural indicators: the third voice. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 555-573.

Wiley, New York, 1973.

Gessner, Robert

The moving image; a guide to cinematic literacy.

Dutton, New York: 1968.

Gibson, Eleanor

Development of perception: discrimination of depth compared with discrimination of graphic symbols. In Cognitive development in children: five monographs of the Society for Research in Child Development, pp. 149-168.

University of Chicago Press, Chicago, 1970.

Giffin, K. (1967)

The contribution of studies of source credibility to a theory of interpersonal trust. Psychological Bulletin, 68, 104-120.

Goffman, Irving

Interaction ritual.

Harmondsworth, Penguin, 1967.

Goto, Kazuhiko (1969)

Programming, one of the fields of broadcasting studies. Studies of Broadcasting (Tokyo), 7, 5-29.

Greenberg, Bradley S. (1966)

Media use and believability: some multiple correlates. Journalism Quarterly, 43, 665-670.

Greenberg, Bradley, and Dervin, Brenda

Mass communication among the urban poor. In C.D. Mortensen and K. Sereno, eds., Advances in communication research, pp. 388-397.

Harper and Row, New York, 1973.

Gregg, Lee

Perceptual Structures and semantic relations. In Lee Gregg (ed.) Knowledge and Cognition, pp. 1-16.

Lawrence Erlbaum Associates, 1974, Potomac.

Groombridge, Brian

Television and the people: a programme for democratic participation.

Harmondsworth: Penguin, 1972.

Gross, George

Unnatural selection. In Nigel Armistead, ed., Reconstructing social psychology, pp. 42-52.

Harmondsworth: Penguin Education, 1974.

Gross, Larry P.

Modes of communication and the acquisition of symbolic competences. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 189-208.

Wiley, New York, 1973.

Gurevitch, Michael, and Elliott, Philip

Communication technologies and the future of the broadcasting professions. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 505-519. Wiley, New York, 1973.

Haber, Ralph Norman (1970)
How we remember what we see. Scientific American, 222, 104-112.

Haber, Ralph N.
Where are the visions in visual perception? In Sydney Segal, ed., Imagery: current cognitive approaches, pp. 36-48.
Academic Press, New York, 1971.

Hall, Stuart
General Introduction in The Popular Press and Social Change 1935-1965, Smith, A., Immerzi, E., Blackwell, T. Centre for Contemporary Cultural Studies 1970, 2-46

Halloran, James Dermot
Mass communication research and adult education.
University of Leicester, Leicester, Eng., 1968.

Halloran, J., Murdock, B., Elliot, P.,
Demonstrations and communication: a case study.
Harmondsworth: Penguin, 1970.

Harre, Rom.
Blueprint for a new science. In Nigel Armistead ed., Reconstructing social psychology, pp. 240-259.
Harmondsworth: Penguin Education, 1974.

Hart, R., and Brown, B., (1974)
Interpersonal information conveyed by the content and vocal aspects of speech. Speech Monographs, 41, 371-380.

Hartmann, Paul, and Husband, Charles
The mass media and racial conflict. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 435-455.
Harmondsworth: Penguin, 1972.

Heider, F.
The psychology of interpersonal behavior.
Wiley, New York, 1958.

Himmelweit, Hilde T., and Swift, Betty
"Adolescent and adult authoritarianism re-examined: Its organization and stability over time." London: Social Psychology Department, London School of Economics, 1971.

Himmelweit, H., Oppenheim, A.F., and Vince, P.
Television and the child: an empirical study of the effect of television on the young. Oxford University Press, London, 1960.

Himmelweit, Hilde,
As suggested in a lecture series on Mass Media Communication at London School of Economics, Nov. 1970.

Holsti, Ole
Content analysis for the social sciences and humanities.
Addison-Wesley, Reading, Mass., 1969.

Holt, Robert
On the nature and generality of mental imagery in, Sheehan, Peter The function and nature of Imagery, 6-31.
Academic Press, New York, 1972.

Hood, Stuart

The politics of television. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 406-434. Harmondsworth: Penguin, 1972.

Horowitz, Mardi

Image formation and cognition.

Butterworths, London, 1970.

Horton, Donald, and Wohl, Richard R. (1956)

Mass communication and para-social interaction, observations on intimacy at a distance. Psychiatry, 19, 215-229.

Hovland, Carl I. (1959)

Reconciling conflicting results derived from experimental and survey studies of attitude change. The American Psychologist, 14, 8-17.

Hovland, Carl I., and Weiss, Walter

The influence of source credibility on communication effectiveness. In Daniel Katz, Daniel Cartwright, Samuel Eldersveld, and Alfred McLung Lee, eds., Public opinion and propaganda, pp. 337-347.

Holt, Rinehart and Winston, New York, 1954.

Hovland, C.I., Janis, I.L., and Kelley, H.H.

Communication and persuasion; psychological studies of opinion change. Yale University Press, New Haven: 1953.

Hsia, H.J. (1969)

Intelligence in auditory, visual and audiovisual information processing. Audio Visual Communication Review, 17, 272-282.

Hsia, H.J. (1971)

The information processing capacity of modality and channel performance. Audio Visual Communication Review, 19, 51-75.

Inhelder, Barbel

Operational thought and symbolic imagery. In Cognitive development in children: five monographs of the Society for Research in Child Development, pp. 17-32.

University of Chicago Press, Chicago, 1970.

Innis, Harold

The bias of communication.

University of Toronto Press, Toronto, 1951.

Isenhour, John Preston (1975)

The effects of context and order in film editing. Audio Visual Communications Review, 23, 69-80.

Jacobson, Harvey K. (1969)

Mass media believability: a study of receiver judgments. Journalism Quarterly, 46, 20-28.

Johnson, Nicholas

Institutional pressures and response at the FCC: cable and the Fairness Doctrine as a case study. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the "cultural revolution", pp. 133-145.

Wiley, New York, 1973.

Johnson, Wendell

The communication process and general semantic principles.
In Wilbur Schramm, ed., Mass communications; 2nd edition, pp. 301-315.
University of Illinois Press, Chicago, 1960.

Kaplan, S., and Sharp, H. (1974)

The effect of responsibility attributions on message source evaluation. Speech Monographs, 41, 364-370.

Katz, Daniel

The formulation of the research design. In Daniel Katz, Daniel Cartwright, Samuel Eldersveld, and Alfred McLungLee, eds., Public opinion and propaganda, pp. 662-664.
Holt, Rinehart and Winston, New York, 1954.

Katz, D.

Consistency for what? The functional approach. In Abelson, etc., Theories of Cognitive Consistency, pp. 179-191.
Rand McNally, Chicago, 1968.

Katz, D., and Kahn, R.L.

Common characteristics of open systems. In F.E. Emery, ed., Systems thinking: selected readings, pp. 86-104.
Harmondsworth: Penguin, 1969.

Katz, Elihu

On re-opening the question of selectivity in exposure to mass communication. In Abelson, etc., Theories of Cognitive Consistency, pp. 788-796.
Rand McNally, Chicago, 1968.

Katz, Elihu

Television as a horseless carriage. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 381-392.
Wiley, New York, 1973.

Kelman, H.C.

Compliance identification and internalization: three processes of attitude change. In Bernard L. Hinton and H. Joseph Reitz, Groups and organizations: integrated readings in the analysis of social behavior, pp. 201-209.
Belmont, Cal., Wadsworth, 1971.

Klapp, Orrin E.

Symbolic leaders: public dramas and public men.

Minerva Press, New York, 1964.

Klapper, Joseph T.

The effects of mass communication.

Free Press, Glencoe, Ill., 1960.

Klapper, Joseph T. and Glock, Charles Y.

Trial by newspaper. In Daniel Katz, Daniel Cartwright, Samuel Eldersveld, and Alfred McLungLee, eds., Public opinion and propaganda, pp. 105-112.
Holt, Rinehart and Winston, New York, 1954.

Knopf, Terry Ann

Race, riots, and reporters. In William Hammel, ed., The popular arts in America: a reader, pp. 364-374.

Harcourt, Brace, Janovich, New York, 1972.

Kramer, E.
Judgment of personal characteristics and emotions from non-verbal properties of speech. In John Laver and Sardi Hutcheson, eds., Communication in face to face interaction, pp. 172-188.
Harmondsworth: Penguin, 1972.

Kuhn, Thomas
The structure of scientific revolutions.
University of Chicago Press, Chicago, 1962.

Laird, Arthur (1966)
Audience research in the CBC. Studies of Broadcasting, (Tokyo), 4, 101-112.

Lana, Robert E.
Assumptions of social psychology.
Appleton-Century Crofts, New York, 1969.

Lang, Kurt, and Lang, Gladys
Politics and television.
Quadrangle Books, Chicago, 1968.

Lasswell, Harold D.
The structure and function of communication in society. In Wilbur Schramm, ed., Mass communications, 2nd edition, pp. 117-130.
University of Illinois Press, Chicago, 1960.

Laszlo, Erwin
The systems view of the world.
G. Braziller, New York, 1972.

Lazarfeld, Paul F. (1963)
Trends in broadcasting research. Studies of Broadcasting (Tokyo), 1, 49-64.

Lazarfeld, Paul F. and Merton, Robert K.
Mass communication, popular taste and organized social action.
In Wilbur Schramm, ed., Mass communications, 2nd edition, pp. 468-486.
University of Illinois Press, Chicago, 1960.

Leiss, William, Kline, Steve, Hackman, Arlin, and Wright, Judy,
Advertising, Human Needs and Resource Conservation, a study prepared for Dept. of Consumer and Corporate Affairs, Govt. of Canada, 1976.

Lemert, James B. (1969)
Components of source "image": Hong Kong, Brazil, North America.
Journalism Quarterly, 46, 306-313.

Lemert, James B. (1970)
News media competition under conditions favourable to newspapers.
Journalism Quarterly, 47, 272-280.

Lemert, James B. (1970)
On dual track. Cited in James Lemert, News media competition under conditions favourable to newspapers, Journalism Quarterly, 47, p.273.

Lemert, James B. (1974)
Content duplication by the networks in competing evening newscasts. Journalism Quarterly, 51, 238-244.

Leroy, David J. (1972/73)

Levels of professionalism in a sample of television newsmen.
Journal of Broadcasting, 17, 51-62.

Levie, W. Howard, and Levie, Diane (1975)

Pictorial memory processes. Audio Visual Communications Review, 23, 81-97.

Levy, Betty Ann, and Craik, Fergus I.M. (1975)

The co-ordination of codes in short-term retention.
American Journal of Experimental Psychology, 27, 33-45.

Lippmann, Walter

The world outside and the pictures in our head. In Wilbur Schramm, ed., Mass communications, 2nd edition, pp. 468-486.

University of Illinois Press, Chicago, 1960.

Lohisse, Jean

Anonymous communication; mass media in the modern world.
Allen and Unwin, London, 1973.

Mandell, Lee M., and Shaw, Donald L. (1973)

Judging people in the news - unconsciously: effect of camera angle and bodily activity. Journal of Broadcasting, 17, 353-371.

Margrain, Susan A. (1967)

Short-term memory as a function of input modality. Quarterly Journal of Experimental Psychology, 12, 109-114.

Markham, David (1968)

The dimensions of source credibility of television newscasters.
Journal of Communications, 18, 57-64.

Maselli, M., and Altrocchi, J. (1969)

Attribution of intent. Psychological Bulletin, 71, 445-454.

Mead, Margaret

Our leaders do not understand television. In William Hammel, ed., The popular arts in America : a reader, pp. 169-174.
Harcourt, Brace, Janovich, New York, 1972.

Mehrabian, Albert

A semantic space for non-verbal behavior. In C.D. Mortensen and K. Sereno, eds., Advances in communication research, pp. 277-281.
Harper and Row, New York, 1973.

Mehrabian, Albert, and Read, Henry

Some determinants of communication accuracy. In C.D. Mortensen and K. Sereno, eds., Advances in communication research, pp. 331-349.
Harper and Row, New York, 1973.

Mehrabian, Albert, and Williams, Martin

Non-verbal concomitants of perceived and intended persuasiveness.
In C.D. Mortensen and K. Sereno, eds., Advances in communication research, pp. 304-330.
Harper and Row, New York, 1973.

Melody, William H.

The role of advocacy in public policy planning. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 165-181.
Wiley, New York, 1973.

Mendelsohn, Harold (1973)

Some reasons why information campaigns can succeed. Public Opinion Quarterly, 37, 50-61.

Menne, Joy M., and Menne, John W. (1972)

The relative efficiency of bimodal presentation as an aid to learning. Audio Visual Communications Review, 2, 170-180.

Meyer, Timothy P. (1971)

Some effects of real newsfilm violence on the behavior of viewers. Journal of Broadcasting, 15, 275-283.

Milbourn, M. Thomas, and Stone, Vernon A. (1972)

Source-message orientation and components of source credibility. Journalism Quarterly, 49, 663-668.

Miller, George A.

The psychology of communications.

Harmondsworth: Penguin, 1967.

Miller, George, Galanter, E. and Pribam, K.

Plans and the structure of behavior.

Holt, New York, 1960.

Miller, Gerald R. and Baseheart, John. (1969)

Source trustworthiness, opinionated statements, and response to persuasive communication. Speech Monographs, 36, 1-7.

Mills, C. Wright

Some effects of mass media. In Alan Casty, Mass media and mass man, pp. 32-35. Holt, Rinehart and Winston, New York, 1968.

Mills, Judson

Interest in supporting and discrepant information. In Abelson, etc., Theories of Cognitive Consistency, pp. 771-776. Rand McNally, Chicago, 1968.

Moore, Maxine Ruth (1970)

The perceptual-motor domain and a proposed taxonomy of perception. Audio Visual Communication Review, 18, 379-413.

Moray, Neville

Attention: selecting processes in vision and hearing.

Academic Press, New York, 1969.

Murdock, Graham

Mass communication and the construction of meaning. In Nigel Armistead, ed., Reconstructing social psychology, pp. 86-100. Harmondsworth: Penguin Education, 1974.

Murstein, Bernard I.

Theory and research in project techniques, emphasizing the TAT. Wiley, New York, 1963.

Myers, Michele Tolela, and Goldberg, Alvin A. (1970)

Group credibility and opinion change. Journal of Communications, 20, 174-179.

McCombs, Maxwell E., and Smith, John M. (1960)

Perceptual selection and communication. Journalism Quarterly, 46, 352-355.

McCombs, M.E., and Shaw, D.L. (1972)

The agenda setting function of the media. Public Opinion Quarterly, 36 (summer) 176-187.

McCroskey, James C., and McCain, Thomas (1974)

The measurement of interpersonal attraction. Speech Monographs, 41, 261-266.

McGuire, William

Selective exposure: a summing up. In Abelson etc., Theories of Cognitive Consistency, pp. 797-800.

Rand McNally, Chicago, 1968.

McGuire, W.

Theory of the structure of human thought. In Abelson etc., Theories of Cognitive Consistency, pp. 140-160.

Rand McNally, Chicago, 1968.

McHugh, Peter

Defining the situation: the organization of meaning in social interaction. Bobbs-Merrill Co., New York, 1968.

McLeod, Jack M., Becker, Lee B., and Byrnes, James E. (1974)

Another look at the agenda-setting function of the press. Communication Research, 1, 131-166.

McLuhan, Herbert Marshall

Understanding media; the extensions of man.

McGraw-Hill, New York, 1964.

McQuail, Denis, ed.,

Sociology of mass communications; selected readings.

Harmondsworth, Penguin, 1972.

McQuail, Denis, Brown, J.R., and Blumler, Jay G.

The television audience; a revised perspective. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 135-165.

Harmondsworth: Penguin, 1972.

Nakanishi, Naomichi (1963)

A report on the how-do-people-spend-their-time survey - an analysis of the livelihood time of the Japanese. Studies of Broadcasting, 1, 97-121.

Nelson, Douglas Lee, and Brooks, David Heber (1973)

Functional independence of pictures and their verbal memory code. Journal of Experimental Psychology, 98, 44-48.

Newcomb, Horace

TV: the most popular art.

Anchor Press, New York, 1974.

Newcomb, T.

Interpersonal balance. In Abelson, etc., Theories of Cognitive Consistency, pp. 28-51. Rand McNally, Chicago, 1968.

Nordenstreng, Kaarle

Policy for news transmission. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 386-405.

Harmondsworth: Penguin, 1972.

Norman, Donald A.

Memory and attention: an introduction to human information processing. Wiley, New York, 1969.

Norman, Donald A., ed.,

Models of human memory.

Academic Press, New York, 1970.

Nowak, Kjell

The psychological study of mass communication effects: on the validity of laboratory experiments and an attempt to improve ecological validity. Stockholm: The Economic Research Institute, Stockholm School of Economics, 1972.

The Observer, June 25, 1975.

Ornstien, Robert

The psychology of consciousness.

Freeman and Co., San Francisco, 1972.

Osgood, C.E., Suci, G.J., and Tannenbaum, P.H.

The measurement of meaning.

University of Illinois Press, Urbana, 1957.

Paivio, Allan

A theoretical Analysis of the Role of Imagery in Learning and Memory. In Sheehan, Peter, The function and nature of Imagery, pp. 253-275. Academic Press, New York, 1972.

Paivio, Allan

Imagery and verbal processes.

Holt, Rinehart and Winston, New York, 1971.

Paivio, Allan

Imagery and language. In Sydney Segal, ed., Imagery: current cognitive approaches, pp. 9-32.

Academic Press, New York, 1971.

Palmer, Edward L.

Formative research in the production of television for children. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution". pp. 229-245. Wiley, New York, 1973.

Parker, Edwin B.

Technology assessment on institutional change? In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 533-545. Wiley, New York, 1973.

Penn, Roger (1971)

Effects of motion and cutting-rate in motion pictures.

Audio-Visual Communication Review, 26-50.

Penrose, Jeanne, Weaver, David H., Cole, Richard R., and Shaw, Donald Lewis. (1974)

The newspaper non-reader 10 years later: a partial replication of Westley-Severin. Journalism Quarterly, 51, 631-638.

Pride, Richard A., and Clarke, Daniel H. (1973)

Race relations in television news: a content analysis of the networks. Journalism Quarterly, 50, 319-328.

Pride, Richard A., and Wamsley, Gary L. (1972)
Symbol analysis of network coverage of Laos incursion.
Journalism Quarterly, 49, 635-640.

Pye, Lucian, ed.,
Communications and political development.
Princeton University Press, Princeton,
N.J., 1963.

Pylyshyn, Zenon W. (1973)
What the mind's eye tells the mind's brain: a critique of
mental imagery. Psychological Bulletin, 80, 1-24.

Randhawa, B.S. (1971)
Intellectual development and the ability to process visual
and verbal information. Audio Visual Communication Review, 19, 298-312.

Ranken, Howard B. (1963)
Language and thinking: positive and negative effects of naming.
Science, 141, 48-50.

Richardson, Alan
Voluntary control of mental imagery. In Sheehan, Peter,
The function and nature of imagery, pp. 54-78.
Academic Press, New York, 1972.

Richardson, Alan
Mental imagery. Routledge and K. Paul, London, 1969.

Roper, Burns W.
Trends in attitudes toward television and other media: a twelve-
year review: from an extended view of public attitudes toward
television and other mass media 1959-1971. A report by the Roper
Organization Inc.

Rosenthal, Paul I. (1972)
The concept of the paramessage in persuasive communication.
The Quarterly Journal of Speech, 58, 15-30.

Rowan, John
Research as intervention. In Nigel Armistead, ed., Reconstructing
social psychology, pp. 86-100.
Harmondsworth, Penguin Education, 1974.

Russo, Frank D. (1971)
A study of bias in TV coverage of the Vietnam War: 1969 and 1970.
Public Opinion Quarterly, 35, 539-543.

Ryan, Michael (1972)
News content, geographical origin and perceived media credibility.
Journalism Quarterly, 50, 312-318.

Saral, T.
Cross cultural generality of communication via facial expression.
In David Speer, ed., Non-verbal communication, pp. 97-110.
Sage Publications, Beverly Hills,
California, 1972.

Sargent, Leslie W. (1965)
Communicator image and news reception. Journalism Quarterly,
42, 35-44.

Schramm, Wilbur, ed.,
Mass communications; 2nd edition.
University of Illinois Press, Chicago, 1960.

Schwartz, Tony
The responsive chord. Anchor Press, New York, 1973.

Sears, Daniel
The paradox of de facto selective exposure without preferences for supportive information. In Abelson etc., Theories of Cognitive Consistency, pp. 777-787. Rand McNally, Chicago, 1968.

Sears, David and Abeles, Ronald (1969)
Attitudes and Opinions, Annual Review of Psychology, 20, 253-288.

Sedgwick Peter
Ideology in modern psychology. In Nigel Armistead, ed., Reconstructing social psychology, pp. 29-37.
Harmondsworth, Penguin Education, 1974.

Segal, Sydney J., ed.,
Imagery: current cognitive approaches.
Academic Press, New York, 1971.

Segal, Sydney
Processing of the stimulus in imagery and perception. In Sydney Segal, ed., Imagery: current cognitive approaches, pp. 73-100.
Academic Press, New York, 1971.

Seiler, John A. (1963)
Toward a theory of organization congruent with primary group concepts. Behavioral Science, 8, 190-198.

Seiler, William J. (1971)
The effects of visual materials on attitudes, credibility, and retention. Speech Monographs, 38, 331-334.

Shannon, C.E., and Weaver, W.
The Mathematical Theory of Communication.
University of Illinois Press,
Urbana, Ill., 1949.

Shaw, Eugene, F. (1973)
Media credibility: taking the measure of a measure.
Journalism Quarterly, 50, 306-311.

Sheehan, Peter
A functional analysis of the role of Visual Imagery in Unexpected Recall. In Sheehan, Peter, The function and nature of imagery, pp. 149-172.
Academic Press, New York, 1972.

Sheehan, Peter W., ed.,
The function and nature of imagery.
Academic Press, New York, 1972.

Sherif, Muzafer (1954)
Integrating field work and laboratory in small group research.
American Sociology Review, 19, 759-771.

Sherif, Muzafer, and Sherif, Carolyn W., eds.,
Attitude, ego-involvement, and change.
Wiley, New York, 1967.

Shulman, Milton
The ravenous eye. Coronet Books, London, 1971.

Siebert, Fred S.
Communications and government. In Wilbur Schramm, ed.,
Mass communications, 2nd edition, pp. 219-226.
University of Illinois Press, Chicago, 1960.

Simon, H.A.
What is Visual Imagery? An information processing interpretation.
In Gregg, Lee, Cognition and learning in Memory, pp. 183-204.
John Wiley and sons, New York, 1972.

Simon, Herbert W.
Interpersonal perception, similarity and credibility. In
C.D. Mortensen and K. Sereno, eds., Advances in communication research,
p. 213. Harper and Row, New York, 1973.

Singer, Benjamin D. (1970-71)
Violence, protest, and war in television news: the U.S. and
Canada compared. Public Opinion Quarterly, 34, 611-616.

Singer, Jerome
Consistency as a stimulus processing mechanism. In Abelson, etc.,
Theories of Cognitive Consistency, pp. 337-340.
Rand McNally, Chicago, 1968.

Skornia, H.J.
Television and society: an inquest and agenda for improvement.
McGraw-Hill, New York, 1965.

Smythe, Dallas W.
Some observations on communications theory. In Denis McQuail,
ed., Sociology of mass communications; selected readings, pp. 19-34.
Harmondsworth, Penguin, 1972.

Sperry, R.W. (1961)
Cerebral organization and behavior. Science, 133, 1749-1757.

Spottiswoode, Raymond
Film and its techniques.
University of California Press,
Berkeley, 1965.

Steiner, Gary
The people look at television.
Alfred A. Knopf, New York, 1963.

Stephenson, Ralph and Debrix, J.R.
The cinema as art. Pelican Books, Middlesex, 1969.

Stempel, G.H.
Research in brief: sample size for classifying subject matter in
dailies. Journalism Quarterly, 29, 333-334.

Stone, Vernon A., and Harrogaddes, Eswara (1969)
The likeability and self-interest of the source in attitude
change. Journalism Quarterly, 46, 61-68.

Stone, Vernon A., and Hoyt, James L. (1974)
The emergence of source-message orientation as a communication
variable. Communication Research, 1, 89-109.

Suchman, Edward A. and Guttman, Louis

A solution to the problem of the question of "bias". In Daniel Katz, Daniel Cartwright, Samuel Eldersveld, and Alfred McLung Lee, eds., Public opinion and propaganda, pp. 729-738.

Holt, Rinehart and Winston, New York, 1954.

Swann, Michael

Quoted in an article in The Times, July 10, 1975.

Tankard, James W. Jr. (1971)

Eye contact research and television announcing.

Journal of Broadcasting, 15, 275-285.

Tannenbaum, F.H.

The congruity principle; retrospective reflection and recent research. In Abelson, etc., Theories of Cognitive Consistency, pp. 52-72. Rand McNally, Chicago, 1968.

Tannenbaum, F.H., and McLeod, J.M.

Public images of mass media institutions. In W. Danielson, ed., Paul Deutschmann memorial papers, pp. 51-60.

Slupp, Howard, Roosan, Cincinnati, 1963.

Thibault, J.W., and Riecken, A.W. (1955-56)

Sense determinants and consequences of the perception of social causality. Journal of Personality, 24, 113-133.

Thompson, Richard F.

Foundations of Physiological Psychology.

Harper and Row, New York, 1967.

Tiemans, R. (1970)

Some Relationships of Camera Angle to Communicator Credibility.

Journal of Broadcasting, 14(4), 491-497.

Travers, R.M.W. and Alvarado, Victor (1970)

The design of pictures for teaching children in elementary school. Audio-Visual Communication Review, 18(1), 47-64.

Travers, R.M.W.

The comparative effects of media. In R.M.W. Travers, Man's information system: a primer for media specialists and educational technologists, pp. 84-93. Chandler Publishing Company, Scranton, Penn., 1970.

Treisman, Anne M. (1969)

Strategies and models of selective attention. Psychological Review 76, 282-299.

Treisman, Anne M. (1964)

Verbal cues, language and meaning in selective attention. American Journal of Psychology, 77, 206-219.

Trenaman, Joseph M.

Communication and comprehension: the report of an investigation, by statistical methods, of the effective communication of educative material and an assessment of the factors making for such communication, with special reference to broadcasting. Ed., E.M. Hutchinson.

Longmans, London, 1967.

Triandis, Harry Charalambos

Attitude and attitude change.

Wiley, New York, 1971.

Trohanis, Pascal L. (1975)

Information learning and retention with multiple-images and audio, a classroom experiment. Audio-Visual Communications Review, 4, 395-413.

Trudgill, Peter

Sociolinguistics.

Harmondsworth, Penguin, 1972.

Tunstall, Jeremy

News organization goals and specialist newsgathering journalists. In Denis McQuail, ed., Sociology of mass communications; selected readings, pp. 259-280. Harmondsworth, Penguin, 1972.

Tversky, Barbara (1969)

Pictorial and verbal encoding in a short-term memory task. Perception and Psychophysics, 6, 225-233.

Tversky, Barbara (1975)

Pictorial encoding of sentences in sentence-picture comparison. American Journal of Experimental Psychology, 27, 405-410.

U.S. Public Health Service,

Surgeon General's Scientific Advisory Committee on Television and Social Behavior.

Television and growing up: the impact of televised violence.

Government Printing Office,
Washington, D.C., 1972.

Vernon, M.D. (1953)

The value of pictorial illustration. British Journal of Educational Psychology, 23, 180-187.

Warner, Malcolm (1968)

Decision making in network news. Television Quarterly, 7, 60-75.

Warr, Peter Bryan, and Knapper, Christopher

The perception of people and events.

Wiley, London, 1968.

Watt, James H. Jr., and Krull, Robert (1974)

An information theory measure for television programming.

Communication Research, 1, 44-67.

Ways, Max

What's wrong with news? It isn't new enough. In William Hammel, ed., The popular arts in America: a reader, pp. 347-362.

Harcourt, Brace, Janovich, New York, 1972.

Weinthal, Donald S., and O'Keefe, Garrett J. Jr. (1974)

Professionalism among broadcast newsmen in an urban area. Journal of Broadcasting, 18, 193-209.

Weiss, W.

Effects of the mass media on communication. In G. Lindsey and G. Aronson, eds., Handbook of social psychology (revised), pp. 77-195. Addison-Wesley, Cambridge, Mass., 1969.

Wentworth, John W.

Broadcasting technologies. In G. Gerbner, L. Gross, W. Melody, eds., Communications technology and social policy: understanding the new "cultural revolution", pp. 23-36.

Wiley, New York, 1973.

Westley, Bruce H., and Severin, Werner J. (1964)
Some correlates of media credibility. Journalism Quarterly,
41, 325-335.

Whitehead, Jack L. Jr. (1971)
Effects of authority-based assertion on attitude and credibility.
Speech Monographs, 38, 311-315.

Wicker, Frank (1970)
Photographs, drawings and nouns as stimuli in paired associate
learning. Psychonomic Science, 18(4) 205-206.

Wicker, Frank W. (1970)
Continuous restricted associations to pictorial and verbal
items. Audio-Visual Communication Review, 18, 431-439.

Williams, Raymond
Communications. Chatto and Windus, London, 1966.

Williams, Raymond
Television: technology and cultural form.
Fontana, London, 1974.

Wohlwill, Joachim
From perception to inference: a dimension of cognitive
development. In Cognitive development in children: five monographs
of the Society for Research in Child Development, pp. 73-94.
University of Chicago Press, Chicago, 1970.

Wollen, Peter
Signs and meaning in the cinema.
Secker and Warburg, British Film
Institute, London, 1969.

Zanna, Mark P., and Del Vecchio, Steven M. (1973)
Perceived credibility of television news: a matter of viewers
attitudes and the position taken by the media. European Journal of
Social Psychology, 3, 213-216.

APPENDIX

CODE SHEET FOR CONTENT ANALYSIS OF SEGMENTS (VISUALS)

NEWSREADER	DELIVERY	BACK PROJECTION	CONTENT	
1	1 towards camera	0 none	0 none	
	2 other in studio	1 still	1 person	
		2 news process	2 place	
		3 photo cine	3 event	
			4 other	
REPORTER	WHERE	CONTEXT	REPORTER AWARENESS	INTERVIEW WITH
2	1 in studio	1 live report from event	1 reporter shown in interview	1 official, representative
	2 on location	2 live report with standard background	2 reporter off camera in interview	2 participants, witness
		3 live interview	3 other direct to camera	3 expert opinion
		4 reporter in studio	4 reporter alone	4 other 5 reporter
VISUALS	ORGANIZATION	CONTENT		
3	1 chronology ie., recap	1 people oriented - human interest story		
	2 balance views	2 crisis oriented - conflict		
	3 neutral, fact	3 action oriented - novelty, speed, excitement		
	4 pyramid of importance	4 situation oriented - circumstances around event		
	5 argument (inference)	5 explanation oriented - help understand event		
		6 opinion oriented		

CONTENT	SUPERIMPOSITION
1 person	0 none
2 event	1 reporter photo
3 place	2 statistics (written)
4 other	

CODE SHEET FOR CONTENT ANALYSIS OF SEGMENTS (AUDIO)

WHO	WHAT
1. Newsreader	1. Comments
2. Voice Over	2. Quotes or paraphrases
3. Reporter	3. Verbal other ie., interviewee
4. Interviewee	4. Sound Over

FORMAT	ORIENTATION
1. Chronology, recap	1. People oriented
2. Balanced views	2. Conflict, trouble
3. Neutral, fact, statistics	3. Action oriented
4. Pyramid of importance, aspects of event	4. Situation, circumstance
5. Inference, argument	5. Explanation, analysis
6. Description	6. Opinion, allegation
	7. Immediacy

Narration: Pro-demonstrator

Trafalgar Square today, where thousands of marchers set out on what must be the largest ever peaceful demonstration here in Britain. It is estimated that as many as one hundred and twenty thousand marched and sang, as they carried banners on their way to a rally in Hyde Park. Police ranks lining the route were prepared for violence, but the well disciplined marchers chanted and shuffled along the route to the assembly point where they were to hear several speeches. Remarkably few incidents occurred as this large throng wended its way through the streets of London. At Grosvenor Square, where the only real incidents of violence occurred, police ranks, which were guarding the American Embassy attempted to disperse the marchers who were gathered there to present their petition to the Ambassador. Riot squad and mounted police pushed the demonstrators from the Square. Scuffles broke out between police and demonstrators until the demonstrators were dispersed. Injuries were incurred on both sides and several arrests were made before the streets were returned to quiet.

Narration: Pro-police Version

Trafalgar Square today, where thousands of marchers set out on what must be the largest ever protest march here in Britain. It is estimated that as many as one hundred and twenty thousand chanting, sign waving and shouting marchers proceed from the assembly point. The police, in view of recent incidents had called out all the reserves for this event, in anticipation of the violent incidents that had been threatened. They lined the whole of the march route, protecting buildings at crucial points along at the various major objectives along the march route where violence might occur, such as: the Rhodesian Embassy, the American Embassy, Downing Street and Hyde Park Corner. The march proceeded along the route to Hyde Park Corner, where the crowd that assembled was addressed by march leaders. Trouble broke out as Grosvenor Square where a large group of radical demonstrators and students were trying to gain access to the American Embassy. They massed together in large numbers and then charged, but were unable to break the police ranks, who remained orderly and well disciplined. Some scuffles broke out between the police and demonstrators, but eventually the demonstrators' attempts were frustrated and eventually the crowd was dispersed. Injuries were incurred on both sides and several arrests were made before the streets were returned to quiet.

General Attitudes Dimensions

Ag 1: Force its Necessity and Lines.

There will always be a war; it is part of human nature.

The police should not be armed.

The law on capital punishment should be restored.

The select few should be trained to lead the masses.

The power of the police should be increased.

A good employer should be strict with his employees in order to gain their respect.

Politics don't play an important part in my day to day life.

Ag 2: Powerlessness and Self Determinancy.

Ordinary people like myself are quite powerless.

The government has the right to require the loyalty of its citizens.

Once a problem child, always a problem child.

Most people who don't get ahead just don't have enough will power.

I find that I am not able to adapt to all kinds of new situations.

A man has the right to determine where his own duty to his country lies.

Ag 3: Status Quo.

The young these days have no respect for the law of the land.

The so-called breakdown in law and order has been exaggerated.

If you start trying to change things very much, you usually make them worse.

The world is full of possibilities open to everyone.

The right to demonstrate is more important than its possible threat to law and order.

Worthwhile changes are not accomplished overnight.

IMAGING SERVICES NORTH

Boston Spa, Wetherby
West Yorkshire, LS23 7BQ
www.bl.uk

**TEXT CUT OFF IN THE
ORIGINAL**

Here are some views - with some you may agree, with others not. Read each and tick the column that best expresses how you yourself feel. There are no right or wrong answers. It is your view that matters.

-339-

agree strongly	agree	agree slightly	uncertain	disagree slightly	disagree strongly
-------------------	-------	-------------------	-----------	----------------------	----------------------

1. There will always be a war; it is part of human nature.

—	—	—	—	—	—
---	---	---	---	---	---

2. The police should not be armed.

—	—	—	—	—	—
---	---	---	---	---	---

3. The law on capital punishment should be restored.

—	—	—	—	—	—
---	---	---	---	---	---

4. Ordinary people like myself are quite powerless.

—	—	—	—	—	—
---	---	---	---	---	---

5. The young these days have no respect for the law of the land.

—	—	—	—	—	—
---	---	---	---	---	---

6. The so-called breakdown in law and order has been exaggerated.

—	—	—	—	—	—
---	---	---	---	---	---

7. The select few should be trained to lead the masses.

—	—	—	—	—	—
---	---	---	---	---	---

8. Students are right to want more say in the running of their colleges

—	—	—	—	—	—
---	---	---	---	---	---

9. If you start trying to change things very much, you usually make them worse.

—	—	—	—	—	—
---	---	---	---	---	---

10. The world is full of possibilities open to everyone.

—	—	—	—	—	—
---	---	---	---	---	---

11. Students who take part in sit-ins should have their grants suspended.

—	—	—	—	—	—
---	---	---	---	---	---

12. The government has the right to require the loyalty of its citizens

—	—	—	—	—	—
---	---	---	---	---	---

13. The power of the police should be increased.

—	—	—	—	—	—
---	---	---	---	---	---

14. A good employer should be strict with his employees in order to gain their respect.

—	—	—	—	—	—
---	---	---	---	---	---

15. Once a problem child, always a problem child.

—	—	—	—	—	—
---	---	---	---	---	---

16. I have no patience with demonstrators, peaceful or otherwise.

—	—	—	—	—	—
---	---	---	---	---	---

17. Most people who don't get ahead

—	—	—	—	—	—
---	---	---	---	---	---

	Agree strongly	Agree	Sense slightly	Uncertain	Disagree slightly	Disagree	Disagree strongly
--	-------------------	-------	-------------------	-----------	----------------------	----------	----------------------

18. The right to demonstrate is more important than its possible threat to law and order. — — — — —

19. The extent of drug taking among young people has been much exaggerated. — — — — —

20. Worthwhile changes are not accomplished overnight. — — — — —

21. I find that I am not able to adapt to all kinds of new situations — — — — —

22. Politics don't play an important part in my day to day life. — — — — —

23. A man has the right to determine where his own duty to his country lies. — — — — —

24. There is a great deal of truth in the phrase "seeing is believing." — — — — —

Opinions about Demonstration (Affective)

Ao(A)1 Usefulness and Violence of Demonstration

The amount of violence occurring in a typical demonstration is greatly exaggerated.

Peaceful demonstrations are far more effective

Demonstrators stand very little chance of affecting the issues against which they are directed.

What has been called violence in demonstrations is really just scuffles between police and demonstrators.

Demonstrations are the most effective legitimate means by which a large group of people can show their discontent with the government.

Ao(A)2 Demonstrators initiate violence.

Anybody that causes trouble on a demonstration should be arrested.

It is necessary to use police as protection against the violent acts of irresponsible demonstrators.

Demonstrators show their true strength when they march peacefully.

Although thousands of people march on these demonstrations most trouble is caused by a few of their very committed leaders.

Any violent act against the police is a breach of law and should be punished.

Ao(A)3 Demonstrator Qualities.

The real danger is any demonstration is from a hard core of rabble rousers.

Most demonstrators don't really understand fully what the demonstration is really about.

Most demonstrators don't understand the real issue for which they are marching.

Many protesters go on marches because of their friends rather than issues.

There is less violence when workers march than when students march because the workers are older and more mature.

Ao(A)4 Police Initiate Violence

The police should restrain themselves more than they do in demonstrations. Violence could be avoided if the police were firmer with trouble makers. It is unfortunate that the police are sometimes overly brutal in their dealings with demonstrators.

In general the police show good judgement and only use force when it is necessary.

Ao(A)5 Police Qualities

Because of the good training and efficiency of our police the amount of violence in demonstrations is reduced.

Policemen should be trained not to allow their emotions to interfere with their work.

The good discipline of our police force ensures restraint from using force under provocation.

Although it is the policeman's duty to enforce law at demonstrations, he does not always enjoy it.

It is unfortunate that sometimes a policeman will allow anger to interfere with the carrying out of his duty.

Ao(A)6 Students and Radicals

It is students and young radicals who cause the trouble on demonstrations.

Students have justifiable reasons that lead them to demonstrate.

Students should have a voice in deciding their own system of education.

Here are some specific views about demonstrations - with some you may agree, with others not. Read each and tick the column that best expresses how you yourself feel. There are no right or wrong answers. It is your view that matters.

	agree strongly	agree	agree slightly	uncertain	disagree slightly	disagree	disagree strongly
1. The amount of violence occurring in a typical demonstrations is greatly exaggerated.	—	—	—	—	—	—	—
2. Peaceful demonstrations are far more effective.	—	—	—	—	—	—	—
3. Anybody that causes trouble on a demonstration should be arrested.	—	—	—	—	—	—	—
4. The police should restrain themselves more than they do in demonstrations.	—	—	—	—	—	—	—
5. The real danger in any demonstration is from a hard core of rabble rousers.	—	—	—	—	—	—	—
6. It is necessary to use police as protection against the violent acts of irresponsible demonstrators.	—	—	—	—	—	—	—
7. Most demonstrators don't really understand fully what the demonstration is really about.	—	—	—	—	—	—	—
8. Violence could be avoided if the police were firmer with trouble makers.	—	—	—	—	—	—	—
9. It is students and young radicals who cause the trouble on demonstrations.	—	—	—	—	—	—	—
10. It is unfortunate that the police are sometimes overly brutal in their dealings with demonstrators.	—	—	—	—	—	—	—
11. Because of the good training and efficiency of our police the amount of violence in demonstrations is reduced.	—	—	—	—	—	—	—
12. Demonstrators stand very little chance of affecting the issues against which they are directed.	—	—	—	—	—	—	—
13. Students have justifiable reasons that lead them to demonstrate.	—	—	—	—	—	—	—
14. In general the police show good judgement and only use force when	—	—	—	—	—	—	—

	strongly agree	agree	agree slightly	uncertain	disagree slightly	disagree
15. Most demonstrators don't understand the real issue for which they are marching.	—	—	—	—	—	—
16. Policemen should be trained not to allow their emotions to interfere with their work.	—	—	—	—	—	—
17. The good discipline of our police force ensures restraint from using force under provocation.	—	—	—	—	—	—
18. What has been called violence in demonstrations is really just scuffles between police and demonstrators.	—	—	—	—	—	—
19. Demonstrators show their true strength when they march peacefully.	—	—	—	—	—	—
20. Although it is the policeman's duty to enforce law at demonstrations, he does not always enjoy it.	—	—	—	—	—	—
21. Although thousands of people march on these demonstrations most trouble is caused by a few of their very committed leaders.	—	—	—	—	—	—
22. It is unfortunate that sometimes a policeman will allow anger to interfere with the carrying out of his duty.	—	—	—	—	—	—
23. Violence on the demonstrators part is futile because the police are always more powerful.	—	—	—	—	—	—
24. Many protesters go on marches because of their friends rather than issues.	—	—	—	—	—	—
25. Any violent act against the police is a breach of law and should be punished.	—	—	—	—	—	—
26. Demonstrations are the most effective legitimate means by which a large group of people can show their discontent with the government.	—	—	—	—	—	—
27. Students should have a voice in deciding their own system of education.	—	—	—	—	—	—
28. There is less violence when workers march than when students march because the workers are older and more mature.	—	—	—	—	—	—

IMAGING SERVICES NORTH

Boston Spa, Wetherby
West Yorkshire, LS23 7BQ
www.bl.uk

**MISSING PAGE/PAGES
HAVE NO CONTENT**

Opinions about Demonstration (Cognitive).

Ao(B)1 Violence and Success of Demonstrations

The proportion of demonstrations that result in violent confrontation and/or physical injury is:

The percentage of demonstrations which have a positive impact on the nation (effective)

Ao(B)2 Demonstrators Initiate Violence

The percentage on incidents of violence which are provoked or initiated by demonstrators

Ao(B)3 Demonstration Qualities

The percentage of demonstrators on the march who actually know what the demonstration is really about

The percentage of all demonstrators who get injured in demonstrations

Ao(B)4 Police Initiate Violence

The percentage of violent incidents that could be avoided if police were more restrained

The proportion of all violent incidents which are provoked or initiated by police (police action)

The percentage of violence avoided if police were more restrained in their actions

Ao(B)5 Police Qualities

The percentage of times when individual judgement by a policeman about when the use of force is necessary is correct.

The percentage of violent incidents that could be avoided if police were firmer

Ao(B)6 Students and Radicals

The percentage of incidents of violence initiated by demonstrators, which are initiated by students

The percentage of demonstrators who are students

Here are some questions about demonstrations. Please mark with a tick the percentage category which you believe is your best estimation of the quantity required. Please read each question carefully and give an estimation for all questions.

1. The proportion of demonstrations that result in violent confrontation and/or physical injury is:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

2. The percentage on incidents of violence which are provoked or initiated by demonstrators:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

3. The percentage of violent incidents that could be avoided if police were more restrained:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

4. The percentage of demonstrators on the march who actually know what the demonstration is really about:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

5. The percentage of incidence of violence initiated by demonstrators, which are initiated by students:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

6. The proportion of all violent incidents which are provoked or initiated by police (police action):-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

7. The percentage of times when individual judgement by a policeman about when the use of force is necessary is correct:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

8. The percentage of demonstrators who are students:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

9. The percentage of violent incidents that could be avoided if police were firmer:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

10. The percentage of all demonstrators who get injured in demonstrations:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

11. The percentage of demonstrations which have a positive impact on the nation (effective):-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

12. The percentage of violence avoided if police were more restrained in their actions:-

0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

Opinions about Television News: Media Credibility.

A med 1 Credibility

News coverage on television gives the whole story.

Because of the brevity of news broadcasts it is very difficult to have a clear idea of what is happening.

News editors can make even the camera lie.

I find news broadcasts Ambiguous/Clear

A med 2 Visual Dominance

I pay more attention to the short news snippets rather than the comment.

I am more inclined to believe television news than radio because I can see for myself what is happening.

I tend to believe what I see rather than the news commentator's descriptions.

A med 3 General bias (police/demonstrators)

I tend to find news on radio more informative than television news.

I find news broadcasts involving/uninvolving.

I find news broadcasts interesting/uninteresting

I find news broadcasts uninformative/informative

A med 4 Preference for TV over Radio

TV news broadcasts in general are:- believable

Radio news broadcasts are in general:- believable

Here are some views on news broadcasting - with some you may agree, with others not. Read each and tick the column that best expresses how you yourself feel. There are no right or wrong answers. It is your view that matters.

strongly agree	agree	agree slightly	uncertain	disagree slightly	disagree	strongly disagree
----------------	-------	----------------	-----------	-------------------	----------	-------------------

1. News coverage on television gives the whole story.
2. I pay more attention to the short news snippets rather than the comment.
3. Because of the brevity of news broadcasts it is very difficult to have a clear idea of what is happening.
4. I am more inclined to believe television news than radio because I can see for myself what is happening.
5. News editors can make even the camera lie.
6. I tend to believe what I see rather than the news commentator's descriptions.
7. I tend to find news on radio more informative than television news.
8. I tend to rely more on newspapers than radio and television as a reliable news source.
9. I find news broadcasts
ambiguous clear
involving uninvolving
interesting uninteresting
uninformative informative
one-sided comprehensive
10. News casts and TV documentaries tend to be biased in favour of police demonstrators
11. TV news broadcasts in general are:-
0%...10...20...30...40...50...60...70...80...90...100% believable
12. Radio news broadcasts are in general:-
0%...10...20...30...40...50...60...70...80...90...100% believable

Please rate the broadcast on the following attributes:

clear what is happening	— — — — — — — —	ambiguous
favourable to police	— — — — — — — —	unfavourable to police
favourable to demonstrators	— — — — — — — —	unfavourable to demonstrators
emphasizes violence	— — — — — — — —	emphasizes peacefulness and restraint

Would this broadcast bias its viewers to believe:

police initiate violence	— — — — — — — —	police restrain from violence
demonstrators initiate violence	— — — — — — — —	demonstrators restrain from violence

For each of the following twenty pictures indicate whether you remember having seen the picture in the news broadcast previously shown.

PICTURE:	present	absent
1.	—	—
2.	—	—
3.	—	—
4.	—	—
5.	—	—
6.	—	—
7.	—	—
8.	—	—
9.	—	—
10.	—	—

PICTURE:	present	absent
11.	—	—
12.	—	—
13.	—	—
14.	—	—
15.	—	—
16.	—	—
17.	—	—
18.	—	—
19.	—	—
20.	—	—

1. march gets under way
2. police line march route to protect buildings
3. march assembles at point for speeches
4. police cordon off marchers objective
5. police attempt to arrest some marchers
6. speeches from march leaders call for violence
7. police begin to push marchers back
8. speeches from march leaders call for order and restraint
9. marchers charge police cordons
10. marchers decide to gain their objective by force
11. police decide to disperse march
12. policemen are attacked by demonstrators

Notes on the Interpretation of the Impression Test

In this study a modified application of the information formula was used to estimate contiguous associations of pictures and event descriptions. Unlike most application of the information formula based on the 'likelihood of occurrence of an event' this measure uses the subjective estimate of probable concurrence of pictures and phrase description. Subjects were asked to indicate whether they thought that the various scenes depicted in the pictures immediately followed upon events described in the response column. The cells of the information matrix were constructed by converting these independent estimates into relative probabilities for each picture. Uncertainty for the individual response categories (rows) was calculated by using the following information formula:

$$U(R) = - \sum_{i=1}^n P(x_{ij}) \log_2 P(x_{ij})$$

where $P(x_{ij})$ represents an individual cell probability.

The total response uncertainty ($U(R)$) was then calculated by summarizing the uncertainties of the response categories

$$U(R) = \sum_{j=1}^m U(R_j)$$

The uncertainty of picture-response contingency was calculated by the following formula:

$$U(SR) = - \sum_{i=1}^n \sum_{j=1}^m P(x_{ij}) \log_2 P(x_{ij})$$

Assuming that $U(S)$ was constant, the information transmitted formula was then calculated

$$IT = U(S) + U(R) - U(SR)$$

and the change of Information Transmitted

$$\Delta IT = [U(R_1) - U(R_2)] + [U(SR_2) - U(SR_1)]$$

From this formula it can be seen that an increase in the information transmitted occurs when $U(R_1) > U(R_2)$

$$\text{or } U(SR_2) > U(SR_1)$$

This means that if the uncertainty of the response categories decreases, or the uncertainty of the picture-phrase associations increases. This formula allows for an interpretation of the distribution of these associative probabilities within a matrix. Thus interpretation can be illustrated simply on a 3×3 matrix by comparing the following cases:

Pictures

CASE 1

responses

	1	2	3	Freq.	U(R)
A	X	X	X	3	.33
B	X	X	X	3	.33
C	X	X	X	3	.33

$$U(R) = -3(.33 \log_2 .33)$$

$$U(SR) = -9(.11 \log_2 .11)$$

CASE 2

responses

	1	2	3	Freq.	U(R)
A	X	X	X	3	1
B				0	0
C				0	0

$$U(R) = -1(\log_2 1)$$

$$U(SR) = -3(.33 \log_2 .33)$$

CASE 3

responses

	1	2	3	Freq.	U(R)
A	X			1	.33
B		X		1	.33
C			X	1	.33

$$U(R) = -3(.33 \log_2 .33)$$

$$U(SR) = -3(.33 \log_2 .33)$$

In Case One all pictures are associated equally likely with all response categories and there is no discrimination between pictures and event descriptions. This matrix is low in information transmitted.

In Case Two, more information is transmitted because there are restrictions in the use of the response categories. However, as indicated by a rise in $U(SR)$ the subject does not discriminate in terms of each picture and its association with the particular response category used; information transmitted, although higher than in the first case, is limited to response differentiation.

In Case Three, the information transmitted is maximised. Each picture is associated with a particular response category, and only that category. The information transmitted measured here represents both stimulus and response discrimination, and their association. In this light the information measure is a useful technique for describing the distribution of responses in a matrix.

Impression and Image Retention Test

Picture #	Film	Impression Test #
1	+ Demo	Control
2	+ Demo	Control
3	both	Control
4	+ Pol	7
5	+ Pol	Control
6	+ Pol	Control
7	+ Demo	Control
8	+ Pol	8
9	Both	12
10	Both	6
11	Both	1
12	Both	3
13	+ Pol	Control
14	+ Demo	10
15	+ Demo	5
16	+ Pol	11
17	+ Demo	2
18	+ Demo	9
19	Both	4
20	Both	Control

IMPRESSION TEST AND RETENTION TEST CONTROL PICTURES



Picture No: 1



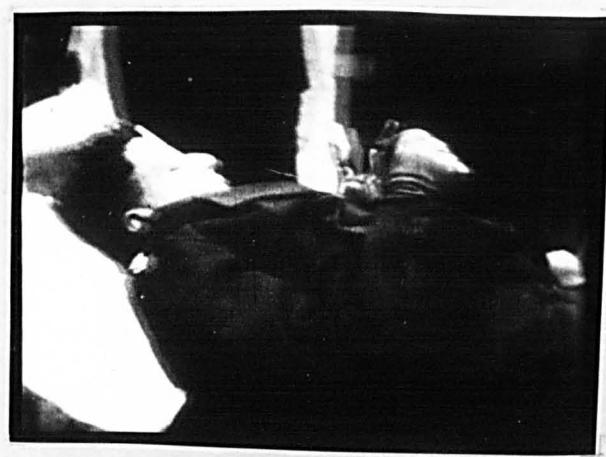
Picture No: 2



Picture No: 3



Picture No: 4



Picture No: 5



Picture No: 6



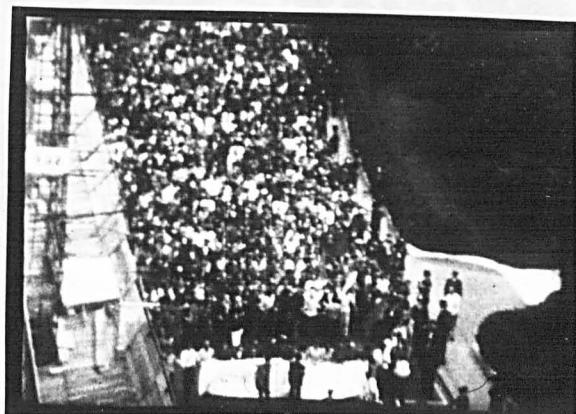
Picture No: 7.



Picture No: 8.



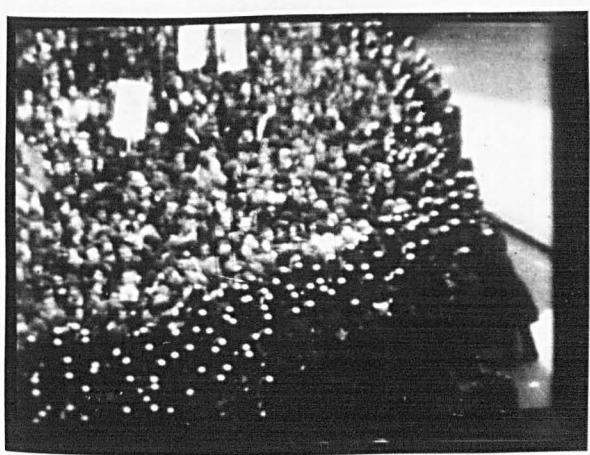
Picture No: 9.



Picture No: 10



Picture No: 11



Picture No: 12



Picture No: 13.



Picture No: 14.



Picture No: 15.



Picture No: 16.



Picture No: 17.



Picture No: 18.



Picture No: 19.



Picture No. 20.