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The Three Paradigms of Mass Media Research In Mainstream Communication Journals

Scholars who write about the paradigms influencing mass media research differ in their speculations. This study was conducted to provide an empirical analysis by examining six characteristics of mass media research articles published in eight major communication journals. The social science paradigm was found to account for over 60% of the studies, while the interpretive paradigm accounted for about 34% and the critical paradigm less than 6%. It was concluded that the social science paradigm, while being the majority paradigm in the mainstream journals, could not be considered a dominant paradigm in the research field. Also, even though most of the research emulated the social science paradigm in purpose, it failed to meet scientific standards of theoretical orientation leading to quantitative data gathered by probabilistic sampling methods.

All fields of scholarship have an underlying set of assumptions and operating principles that researchers in the field follow unquestioningly. Kuhn (1977) refers to this set of foundational beliefs as a paradigm, which is defined as a consensus among scholars or “the entire global set of commitments shared by the members of a particular scientific community” (Kuhn, 1977, p. xix). The scholars in a community use these taken-for-granted assumptions in making various practical decisions about their research. These assumptions govern the way questions are asked, the methods that are used, the criteria for what is accepted as data, and the standards for evaluating the validity of knowledge claims.

If we are to understand the nature of our research practices and the limitations of the knowledge those practices produce, we must try to identify what these assumptions are. However, these assumptions are difficult to illuminate, because we cannot observe them directly. Instead we must either speculate about what they might be or infer them from the research records that are produced by scholars. It is the purpose of this article to illuminate the speculations, then to examine some of the published literature to see which of those speculations are supported by empirical data. This purpose statement reveals that this study is based on a social science perspective for research. We use social science not because we believe it is the only type of research capable of producing the “correct” or most “truthful” set of results. Instead we use social science in order to generate a set of results that might contrast with findings already presented in the literature that have relied on different research paradigms. It is hoped that

readers will consider the conclusions of all types of studies when thinking about the paradigms that underlie mass media research.

Speculations

There is a good deal of speculation about the sets of assumptions or paradigms in various fields of social science. For example, sociology as a research discipline is regarded as a parent of media research in terms of providing research methods, questions, and theories. But sociology is not a unified social science, that is, not all sociologists use the same methods or ask the same types of questions. There is considerable variety in perspectives among sociologists concerning what they see as the purpose of the research in their field. And furthermore, scholars who speculate on the paradigms governing sociological research also exhibit a considerable variety of perspectives. There are at least four expressed perspectives on paradigm configurations. Friedrichs (1970) believes that sociology has two paradigms, but other scholars see three (Eisenstadt & Curelaru, 1976; Lemert, 1979; Ritzer, 1981).

The differences in these four conceptions can be traced to differences in the way these scholars have operationalized the idea of paradigm. Friedrichs focuses his attention on what sociological researchers believe the essential nature of society to be, and this belief is the fundamental assumption that distinguishes among sociological scholars. He says that a researcher either regards society as a system striving to maintain balance, or as a collection of groups in perpetual conflict. Each of these two groups of scholars ask their research questions in a different manner, look for different kinds of evidence requiring differing methodologies, and employ different forms of analysis. Eisenstadt and Curelaru (1976) also build their fundamental distinction on what the researcher believes society to be. But they see an evolution of three serial paradigms where the first is based on the view that society is a discrete system (psychological and ecological characteristics of people), the second that society is a closed system (composed of separate but interrelated elements or classes of people where one dominates the others), and the third that society is an open system (composed of many interconnections and continuous feedback processes among the components). Ritzer (1981) draws his distinction by identifying the part of the overall phenomenon of society on which the researcher focuses. Some researchers are most interested in social facts (large-scale social structures such as institutions), others are primarily interested in social definitions (how people define their social situations and how those definitions influence their actions), and still others focus on social behavior (how rewards and punishments shape behavior of individuals). And Lemert (1979) makes his categorizations by level of the phenomenon examined where there is the lexical level (technical look at language), the semantical level (interpretation of meaning of language), and the syntactical (large-scale political interpretation). As can be seen among these sociology scholars, there are substantial differences among their views about which paradigms are influencing research in their field. These differences in paradigm configurations are based on differences in the criteria used to distinguish among research studies.

Paradigms in Mass Media Studies

There is also a diversity of views about the paradigms underlying mass media research. There are at least six different speculations. Both Lowery and DeFleur (1988) and Hall (1982) state that there are three sequentially ordered paradigms; Craig (1989) sees three coexisting ones; Giddens (1989) sees one; and Krippendorff (1989) and Rosengren (1989) each see none. In their review of the milestones of mass media research, Lowery and DeFleur (1988) posit that there have been three paradigms in the field. First, there was the mass society paradigm that was based on the assumption that the audience was composed of a mass of people who passively received media content as if those messages were magic bullets delivering direct, unfiltered effects. Second, there was a shift to a cognitive paradigm that focused on how sensory input shapes perceptions, beliefs, attitudes, values, memory, thinking, and actions. Then, in the 1970s, a third paradigm emerged where researchers operated under the belief that symbol systems (such as language and media texts) conveyed widely shared meanings about the world and people's behaviors. Called the "meaning" paradigm, it stimulated researchers to look for evidence of longer-term effects, internal as well as external to the person.

Hall (1982) also has a three-phase perspective on paradigms. Hall, like Lowery and DeFleur, begins with the "mass society" paradigm. He reasons that the rise of the urban commercial culture in Europe during the 1700s was perceived as a threat to the traditional cultural values, and this became a real concern during the late 1800s when sociologists began to notice a deep and qualitative shift in social relations among people in many advanced industrial capitalist societies. This European approach employed history and philosophy to make sweeping generalizations. Using speculation with some empiricism, these European sociologists regarded the media as having a direct and powerful effect on individuals. He sees a second paradigm beginning in the 1940s and dominating into the 1960s. This American-based paradigm relied more strongly on scientific methods, focused on the behavioral change of individuals, and followed a Lasswellian research formula of who (control analysis) says what (content analysis) to whom (audience analysis) to what effect (audience effects). The third stage reflects a shift toward ideology and is very critical of social scientific methods of survey, experiment, and reductionistic content analysis. Grounded in linguistics and structural sociology, this third paradigm regards each culture as having a different way of classifying the world. Culture, language, and symbols induce certain meanings.

Craig (1989) speculates that there are three coexisting paradigms in mass media research: *empiricism*, which seeks to explain, predict, and control observable phenomena by discovering necessary, general relationships among them; *hermeneutics*, which seeks to understand meaningful human actions by interpreting texts and locating them within intelligible frames; and *critical theory*, which seeks emancipatory social change through critical reflection on social practices.

Giddens (1989) views media studies as having a single social scientific paradigm that is characterized by naturalism, social causation, and functionalism. Naturalism (a term he prefers over positivism) is the notion that social sciences

should be modeled after natural sciences and that the logical framework of social science addresses problems similar to those of natural science. Social causation is the idea that social scientists are able to demonstrate that people are moved by causes of which they are unaware. Functionalism focuses on systems of behavior, and as such is modeled more after biology than physics. Giddens admits that this paradigm is being challenged and that it no longer has a consensus, but he does not explain what the evolving paradigms are.

Krippendorff (1989) says that the field is in a preparadigmatic stage. He equates this stage with naivety because he sees scholars questing for a naturalistic paradigm but not being able to achieve it because, in his opinion, there is no objective existence outside of independent, scientific observers, and those observers are not able to enter the domain of observation, because they believe that doing so would taint the phenomena they want to examine.

Rosengren (1989) seems to take the most radical approach by saying not only that the field of mass media research is without paradigms but that none of the social sciences (with the possible exception of economics and linguistics) has a paradigm. But unlike Krippendorff, Rosengren moderates his position by saying that scholars have differing research traditions and schools of thought, such as the critical school and the positivist school. He says that the dominant school is functionalist sociology, which regards science as objective and society as consensus or static.

It is interesting to note that six schemes can evolve out of the same starting point. All acknowledge Kuhn's conception of a paradigm and all are writing about the field of media studies, but six different schemes result. How is this possible? The answer seems to lie in the way these scholars translate Kuhn's conception into particular criteria to use in categorizing media research. Lowery and DeFleur use the criteria of research focus in categorizing the research into paradigms; they show that the focus has shifted from a concentration on effects and toward the process used by audience members in making meaning from particular texts. Hall distinguishes among paradigms primarily in terms of focus (like Lowery and DeFleur) and methodology. As for the latter criterion, he explains that the latest paradigm shift is a change in focus away from behavioral methods of survey, experiment, and reductionistic content analysis to textual analysis. Giddens and Rosengren also use the methodological criterion as does Krippendorff in explaining his position that the field of mass media studies is preparadigmatic. Craig distinguishes among paradigms on the purpose for the research. The differences in determining what paradigms exist then can be traced in part to whether we highlight differences in the focus of the research, the methods used, or the purpose.

The most fundamental criterion (among focus, method, and purpose) is purpose, because it addresses the most deep-seated assumptions of researchers. Media scholars have been debating whether the primary purpose of inquiry should be to explain, interpret, or critique the phenomenon of mass media. This debate will continue to be unresolved, because it is based on personal values. Whether the personal values are a product of training or of a personality-based inclination to see the world in a certain way, scholars exhibit a dominant mode in the design

of their research. This is not to say that the dominant mode is the only mode that influences that research. For example, a person who defines herself predominantly as a social scientist would focus on generating empirical data in an attempt to explain some aspect of the mass media, but she will also critique the findings and assumptions in the literature and then interpret her findings. In contrast, a person who defines himself predominantly as a critical scholar would be primarily interested in critiquing a media institution, but he must also explain his ideological stance and interpret events for the reader so as to build a convincing critique.

Rationale

This research study is not superparadigmatic, that is, it cannot provide an analysis of paradigms from a platform that is itself not influenced by a paradigm. The research concerning paradigms reviewed above has been conducted from an interpretive or ideological point of view. In contrast, this study will be conducted within a social science type paradigm. If the findings of this study conform to the conclusions advanced in the articles using another paradigm, then there will be reason to believe that the phenomenon of interest (i.e., paradigmatic configuration in the mass media literature) is indeed robust enough to emerge in the insights of scholars with very different conceptions of research. If the findings of this study do not conform to those of other scholars, then the discussion of paradigmatic differences will need to evolve to a higher level of synthesis.

First, a distinction must be made between purpose and the operational elements that researchers use to achieve their purpose. The purpose criterion is the most fundamental to scholarship and has been shown to provide the deepest divisions among researchers. The operational elements (such as focus of the research, use of theory, type of data, etc.) follow from purpose, so examining these elements in the research should provide a reflection of the fundamental purpose of the study, but not an accurate picture of it. For example, the use of quantitative data reflects an explanatory purpose, but quantitative data are also used by interpretive and critical scholars. Therefore, these operational elements can be useful in reflecting purpose, but they are not clear enough as discriminators to use in classifying research into paradigms. This argument can be tested in this study, because two levels of coding are conducted, one at the purpose level and the other at the operational level. The data from these two analyses will be compared to determine the degree to which the operational elements provide a clean profile of paradigms categorized by purpose.

Next, the variables in the two levels of analysis must be defined. At the categorization level, purpose will be used. At the profile level, the operational elements will be research focus, use of theory, type of data, source of data, and type of sample.

Purpose

The concept of paradigm must be defined clearly and precisely enough to be a useful guide in analyzing the research; however the concept must not be reductionistic to the point where the results are so atomistic that they cannot be

assembled into interesting patterns to answer the questions posed. Fortunately, the essays that speculate about paradigms in mass media research provide a strong starting place. Despite the range of views, there is relatively high degree of conformance on a few points. All, except for Krippendorff, acknowledge that mass media research has at least one paradigm and probably more than one (although Giddens describes only one and Rosengren calls them schools of thought). All see a paradigm that variously goes by the name of social science, American behaviorism, positivism, empiricism, or cognitive science. The terms positivism and empiricism are often used as synonyms for social science. The terms American behaviorism and cognitive science, while not synonyms for social science, are clearly major domains within it. The traditional social science perspective focuses on human behavior to make statements about hypothetical constructs such as attitudes, values, beliefs, motivations, intentions, and satisfactions. These researchers use traditional social scientific methodologies of experiment, survey, and content analysis to gather data (primarily quantitative but also qualitative) from individuals (people and programs) to make generalizable statements about human behavior in the aggregate. Finally, all writers who speculate about paradigms in mass media research, except Krippendorff and Giddens, see a second paradigm under the name of ideological, critical school, or critical. This paradigm is very different from the social science one primarily because it makes no pretense of providing an objective analysis and instead foregrounds its ideological perspective and analyzes texts or industry occurrences as evidence in support of that ideology.

This general two-paradigm scheme of social science and critical/ideological accounts for most of the thinking cited above except for the hermeneutic paradigm identified by Craig. In some early pilot testing of our scheme, it became clear to us that two categories for paradigms were not enough and that there was a need for a third to include legal, policy, and historical studies. As a group, these studies share some characteristics of both social science and critical paradigms without being a clear example of either. To illustrate, they appeared like social science studies in their attempt to explain some aspect of the media without relying on an explicit ideological framework. However, they appeared like critical studies in their lack of interest in or ability to generalize beyond the set of examples or cases cited. This third category, which reflects Craig's hermeneutic set, was referred to as interpretive. By "interpretive" we do *not* necessarily mean research that focuses on how ordinary individuals make meaning out of the media. Instead we use interpretive to refer to the perspective that certain researchers have when they provide contexts (political, historical, etc.) in order to construct a pattern of interpretation for individual events or media messages. Therefore, interpretive refers to the researcher, not to the phenomenon being studied.

In summary, the variable of paradigm is operationalized in this study along the criterion of purpose for the research and as such has three possible values: social science, critical studies, and interpretive.

Will coders be capable of making reliable judgments using only this very general definition? This is an important question about all content analyses. To

increase the probability of intercoder agreement, designers of content analyses usually construct a very reductionist definition of the phenomenon to be examined. That is, designers of content analyses refine their coding schemes by incrementally moving their focus to more microlevels of analysis, which gives them the ability to provide greater detail in their definitions. This greater definitional detail is intended to provide a greater degree of guidance to coders and thereby reduce the latitude of coder judgment. A wide latitude of judgment is regarded as leading to disagreements among coders and therefore to unacceptably low intercoder reliability. However, taking this path to reductionism, researchers very often lose the essence of the phenomenon they are trying to capture in their coding measures.

With some phenomena, it is possible to avoid reductionism and still achieve high coder agreement. And it is even possible to achieve better coder agreement with general gestalt-like definitions than with reductionistic definitions. Consider the classic example of the concept "chair." Providing a clear definition that covers all examples of chair is impossible. Engaging in such an exercise is futile because it will necessarily result in a very long definition composed of a string of terms, many of which are useless as descriptors of any given example of "chair." The essence of "chair" defies a reductionistic definition. However, when people are shown examples of chairs and nonchairs, there is remarkably high agreement in their classifications.

The concept of paradigm also seems to require this kind of nonreductionistic definition. It is possible to assemble relevant elements into a definition, but this assemblage might not clarify the concept. Kuhn himself was criticized for being unclear in his definition of paradigm by at least one scholar who complained that Kuhn appeared to use the term paradigm in at least 21 different ways in his initial book (Masterman, 1970). But some concepts have many different facets to them, and the structure of those facets is such that none of them is paramount in the definition. That is, none of the facets, regarded as elements in the definition, is necessary, and no set is sufficient for all cases. When this is true, providing a clear, encompassing definition is impossible. But even without such a definition, scholars may still be able to feel confident in identifying exemplars of the concept. Furthermore, there may be a high level of agreement among those classifications of exemplars even though the scholars are unable to articulate precisely the basis for those decisions. The concept of paradigm appears to be such a concept, and the nonreductionistic approach will be tested in this study. Perhaps the concept of paradigm is regarded by social scientists in a similar way that the concept of "chair" is regarded by the general population.

Operational Elements

Once we differentiate the research into paradigm groupings according to purpose, then we can examine whether the more operational elements such as methodologies and focal areas cluster on different paradigms. It might be the case that the studies within a given paradigm exhibit a consistent pattern along these research dimensions and that these patterns are different across paradigms. In this case a paradigm could then be defined (and cleanly distinguished from other paradigms) by the presence or absence of certain critical elements in its exem-

plars. However, it might be the case that there are no consistent patterns of elements within a paradigm or that an element is likely to be associated with studies in different paradigms. If this is the case, paradigms cannot be defined, exclusively or consistently, by these elements.

Which operational elements should be used? To provide a basis for answering this question, the literature on these elements is reviewed. Most of this research has examined the use of methods, but some studies have also looked at the type of data and use of theory.

Methodology. Several content analyses of the research literature have focused on methodologies. For example in psychology, Christie (1965) reported finding a big shift toward experimental research when he examined 139 “prime” articles published in the *Journal of Abnormal and Social Psychology* in 1949 and 1959. He reported that there was a considerable increase in experimental manipulation, especially the use of multiple experimental groups. Higbee and Wells (1972) extended this work by examining the 132 articles in the 1969 volume of the *Journal of Personality and Social Psychology*. They found that 90% of the articles used the experiment. This dramatic change in method was viewed as an indication of a shift in paradigm based on a stronger belief in the importance of reductionistic research and a belief in researchers’ ability to identify and control relevant variables.

In mass media studies, Wimmer and Haynes (1978) analyzed the contents of the *Journal of Broadcasting* from 1970 to 1976 and reported that the survey method was used most often (44.5%), followed by laboratory experiment (25.7%) and content analysis (21.0%). Moffett and Dominick (1987) updated this research by examining methods used in the same journal from 1970 to 1985 and found the same rank ordering among methods.

Type of Data. Within mass communication research there has been a shift from qualitative to quantitative data. Schramm (1957) examined changes in mass media research published in *Public Opinion Quarterly* from the early 1930s to the early 1950s. He reported a growth in the use of quantitative analysis from almost no quantitative articles to half of all articles published 20 years later. He said that the development of research has been dramatic “from almost wholly non-quantitative research, to a fairly even balance between quantitative and non-quantitative; from an almost exclusive preoccupation with the methods and viewpoints of the humanities, to a concern with methods and problems of the behavioral sciences as well” (p. 91). Webb and Salancik (1965) reported similar findings in an analysis of *Journalism Quarterly* where 47% of articles in 1955 were quantitative while 62% were in 1964. Perloff (1976) examined a later time from 1965 to 1974 in the same journal and found the same trends as did Schramm. During this later period, 60% of all articles used quantitative data. Even in the subarea of historical journalism, Folkerts and Lacy (1985) report that 16% of this literature ($n = 82$) used quantitative methods.

A similar but earlier trend is reported in sociology. Brown and Gilmartin (1969) reported that the percentage of articles using quantitative analysis rose from 53% in the 1940s to 85% by the mid 1960s. They also reported a strong trend in sociology away from case studies toward large samples (over 10) and

toward quantitative data. This trend has also been observed in psychology (Christie, 1965).

Use of Theory. It is interesting to note that there is no content analysis of the mass media research literature to determine the prevalence of theory. There is one such study in sociology—but with an ironic twist. Brown and Gilmartin (1969) analyzed the research in sociology journals in the early 1940s and compared it with research in the mid 1960s. They reported a trend toward much more hypothesis testing and less inductive research. They also said that there were fewer “theory” articles (31% down to 16%) and, in contrast, there were more “substantive” articles (up from 51% to 70%), which they define as “studies presenting empirical data on social phenomena and . . . papers reviewing past research or proposing new directions for inquiry” (p. 284). The percentage of articles focusing on methodology remained the same. The paradigmatic bias of these authors is apparent in the way they use the terms “theory” and “substantive” to categorize articles. Theory is not defined by them as a set of general propositions that predict or explain behavior; rather they seem to define it as nonempirical essays. In contrast, articles that have gathered quantitative data are labelled as “substantive.” They interpreted their results to mean that sociology was experiencing a growing paradigmatic bias toward reductionistic research.

It appears that mass media research has followed the lead of psychology and sociology toward greater use of social scientific methods of gathering quantitative data. The review above raises a question about whether this trend has continued through the mid to late 1980s or whether the research has displayed a shift into a critical paradigm as observed by Hall (1989).

Given the review of operational elements above and the purpose of this study, five elements are examined to determine if there were consistent patterns of research within paradigms and distinct patterns across paradigms. These elements are categorized in two sets as follows: (1) orientation of the research (focus and use of theory), and (2) nature of the data (type, source, and sampling). The codings of these five variables were made independently of the coding for paradigms. Each of these five variables is described in the methods section.

Expectations

It is expected that results of this content analysis of the research literature will show that relatively consistent decisions can be made concerning paradigms on the criterion of purpose. Further, it is expected that social science will be found to be the most prevalent of the paradigms. Paisley (1986) reports that articles in communication journals contain more citations of research appearing in non-communication journals (especially from the social sciences) than communication journal citations in noncommunication journals. This suggests that mass media studies is trying to emulate other contiguous disciplines, especially the social sciences such as sociology, psychology, and political science.

When the five operational criteria are used to construct profiles of paradigms, it is expected that those profiles will have value in showing tendencies but will not provide clear-cut definitions of the paradigms. If they were clean descriptors, then social science research should have a fairly strong theory orientation, and

there should be a prevalence of quantitative data gathered in probability samples. There is no empirical foundation in the literature for expecting a certain percentage of articles to be generated by theory. But there is a reason to expect that if mass media research attempts to be scientific and if it relies on sophisticated analytical methods to allow generalizability of results, then it should be guided in large part by theory. As for the area of data, there should be a greater prevalence of quantitative compared with qualitative. Quantitative analysis accounted for over 80% of research in sociology by the late 1960s (Brown & Gilmartin, 1969) and over 80% of research in social psychology even earlier than that (Christie, 1965). If mass media research is to be conducted in a scientific manner, there should be probability sampling techniques employed so that the data are representative of large-scale populations.

Methodology

Sample

The sampling frame consists of all full articles (not research in brief or book reports) that deal primarily with mass media topics and were published between 1965 and 1989 in the major U.S.-based communication journals. In order to be considered major, a journal had to have a minimum circulation of 2,000 and exhibit very high standards as evidenced by a blind review process resulting in an acceptance rate under 20%. The sample was composed of eight U.S.-based, internationally distributed peer reviewed journals as follows: *Communication Monographs*, *Communication Research*, *Critical Studies in Mass Communication*, *Human Communication Research*, *Journal of Broadcasting & Electronic Media*, *Journal of Communication*, *Journalism Quarterly*, and *Quarterly Journal of Speech*. A systematic skip of three was used in choosing the years of 1965, 1968, 1971, 1974, 1977, 1980, 1983, 1986, and 1989. All issues published within the nine selected years were examined. However, not all of these journals were publishing throughout this 25-year time span. *Communication Research* and *Human Communication Research* began publishing in 1974, and *Critical Studies in Mass Communication* began in 1984.

This sampling frame excludes all unpublished manuscripts. It also excludes books, book chapters, and monographs as well as articles in nonreferred journals or journals that were not considered the major outlets for mass media research. Decisions of exclusion are always arbitrary to some extent. Undoubtedly a different sampling frame would lead to a different set of results.

Units of Analysis

Six variables were examined. The primary variable was purpose, and the other five (research focus, use of theory, type of data, source of data, and type of sample) were the operational characteristics of the research. Each of these is defined below.

Purpose. The purpose of the research was used to classify the articles by paradigm. There were three values for purpose: explanation, interpretation, and criticism. Explanatory scholarship was defined as research that attempts to use observable data in order to discover generalizable patterns in media messages

and human behavior. Research with this purpose was categorized as being reflective of a social science paradigm. Interpretive research is characterized by an attempt to convey facts in a (not self-consciously ideological) narrative for the purpose of illuminating a relatively small set of related events. This set included studies that attempted to interpret the reasons for and effects of laws, policies, and historical events on the mass media institutions and messages. Such studies rely on evidence gained through in-depth interviews with key people and on primary documents, such as laws, opinions, memos, letters, and the like. Research with this purpose was categorized as reflecting an interpretive paradigm. Studies categorized as critical displayed a purpose of examining closely a relatively small set of specific texts (message, industry, culture, etc.) in order to argue that an underlying ideology governed their existence.

Research Focus. The focus of the research refers to the part of the mass media phenomenon that the authors attempt to explain, interpret, or critique. In mass media research the Lasswellian model of who says what to whom in what channel with what effect serves as a useful typology that was elaborated to specify 10 domains as follows: media industry, personalities in the media, production of messages, message content, audience analysis, distribution of messages, effects of the media on individuals or groups, effects of the media on institutions/society/culture, regulation of the media, and cannot tell.

Use of Theory. For this study, theory is regarded in a formal scientific manner, that is, in the hypothetico-deductive sense of science where a general proposition is identified, a hypothesis is developed, and a test is run to determine if there is support for the hypothesis. "Theory-driven research" then is regarded as what fits all of these criteria. Theory had three values: the article provided a clear test of a named theory, the article posed an empirical question and at least one hypothesis (not derived from a named theory), or the article posed an empirical question with no hypothesis.

Type of Data. The type of data is also important from a paradigmatic point of view because it signifies what is to be regarded as evidence in research studies. The type of data has four possible values: quantitative, qualitative, both, or no data.

Source of Data. The source of the data would also reveal assumptions about evidence, that is, to what extent is there a convention of generating primary data and to what extent is there a practice of using existing data bases? The source of data has six possible values: direct contact with people, direct contact with media messages, direct contact with archival data, analysis of existing quantitative data base, analysis of existing qualitative data base, or reanalysis of someone else's research.

Type of sample. What type of sample is most often used, that is, must it be a probability sample or is it common practice to use nonrandomly generated samples? The sampling variable has four values: population study with no sampling, probability sample, nonrandom sample, or unclear sampling.

Coding Procedure

Two graduate students were the primary coders. Two other people also coded a subsample of about 40% of the cases so that intercoder reliability could be

Table 1
Published Articles
Classified by
Paradigm Across
25 Years

Year	Critical	Interpretive	Social Science	Total
1965	7	45	31	83 (5.9%)
1968	15	49	35	99 (7.1%)
1971	1	53	47	101 (7.2%)
1974	9	44	110	163 (11.7%)
1977	7	64	127	198 (14.2%)
1980	5	63	123	191 (13.7%)
1983	8	61	110	179 (12.8%)
1986	13	54	123	190 (13.6%)
1989	16	41	136	193 (13.8%)
Totals	81 (5.8%)	474 (33.9%)	842 (60.3%)	1397

computed. All four people were trained over a 6-month period. The training included a graduate-level course in content analysis and a series of exercises in which they each coded about 500 articles. Following this experience they were involved in redefining some of the coding elements and redesigning the coding form. The new coding form was then used in the collection of the current sample.

Results

Intercoder Reliability

A total of 1397 articles dealing with the mass media were found in the eight journals during the designated years. The intercoder agreement was quite satisfactory, even on the identification of paradigms. Scott's *pi* coefficients are as follows: paradigm, .82; research focus, .90; use of theory, .83; type of data, .89; source of data, .95; and sampling method, .85.

Categorization by Purpose

Within the total of 1397 coded articles, 842 (60.3%) were coded as belonging to the social science paradigm; 474 (33.9%) interpretive; and 81 (5.8%) critical (see Table 1). In the early years of this analysis (1965 through 1971), the interpretive paradigm accounted for the majority of the research, but by 1974 social science research became very prevalent (by a factor of two to one) and has remained so ever since, showing no signs of waning. In 1989, over 70% of all mass media research was conducted in the social science paradigm.

Profiling by Operational Elements

How do operational elements (such as research focus, use of theory, type of data, source of data, and type of sample) cluster on the paradigms?

Research Focus. It is important to observe that the options among the research elements were spread across all paradigms. The variable of focus has nine different values (ignoring "Can't Tell"), and with only one exception, each paradigm displayed at least one article for each of these nine options (see Table 2). We cannot conclude that a paradigm is *limited* to looking at only a subset of options. However, we can say that within a given paradigm, certain subject areas are more prevalent. With the social science paradigm, the most popular focal areas

	Paradigm			Total
	Critical	Interpretive	Social Science	
<i>Focus</i>				
Industry	10	101	91	202 (14.5%)
Personalities	1	51	4	56 (4.0%)
Production	10	24	45	79 (5.7%)
Distribution	2	63	24	89 (6.4%)
Content	19	33	216	268 (19.2%)
Audience	0	14	129	143 (10.2%)
Effects—Ind.	5	29	272	306 (21.9%)
Effects—Soc.	17	20	10	47 (3.4%)
Regulation	7	110	20	137 (9.8%)
Can't Tell	10	29	31	70 (5.0%)
<i>Type of Data</i>				
Quantitative	1	15	755	771 (55.2%)
Qualitative	42	386	30	458 (32.8%)
Both	2	38	57	97 (6.9%)
None	36	33	0	69 (4.9%)
<i>Source of Data</i>				
Contact—People	0	13	508	521 (39.1%)
Contact—Media	14	24	206	244 (18.3%)
Archival Data	4	206	9	219 (16.5%)
Existing Quant.	2	16	85	103 (7.7%)
Existing Qual.	1	12	19	32 (2.4%)
Reanalysis	25	172	15	212 (15.9%)
Totals	81 (5.8%)	474 (33.9%)	842 (60.3%)	1397

Table 2
Comparison of
Paradigms by
Focus, Type of
Data, and
Source of Data

were individual effects and media content, which combined accounted for 58.0% of its research. In contrast, these two categories accounted for only 13.1% of interpretive studies and 29.6% of critical studies. The two most popular topic areas for interpretive studies are regulation and industry, which combined account for 44.5% of that research. The two most popular areas of critical studies are content and social effects (44.4%).

The paradigms did not differ much on their *degree of concentration* in focal areas. The critical studies and interpretive paradigms each needed four areas to account for at least two thirds of their research, while social science needed three.

The variable of focus is not a sharp discriminator among the three paradigms. For example, the data show that it is possible to use any of the paradigms to address any focal area. But paradigm is a probabilistic predictor of area of focus. Knowing that a researcher operates within the social science paradigm would lead us to predict that he or she will probably focus on audiences, messages, or individual effects.

Type of Data. There is a clear difference of patterns across the three paradigms (see Table 2). The articles in the social science paradigm favored quantitative data (89.7% of social science studies relied on quantitative data exclusively), while studies in the interpretive paradigm favored qualitative (81.4%).

Source of Data. While 46.7% of interpretive studies relied on archives as a source of data, only 8.4% of interpretive studies used data gathered through direct

Table 3
Profile of
the Social Science
Paradigm:
Theoretical Foundation,
Type of Data, and
Type of Sampling

	Theoretical Foundation			Total
	Theory	Q&H	Q Only	
<i>Quantitative</i>				
Probability sample	34	82	109	225 (26.7%)
Population study	5	21	45	71 (8.4%)
Nonprobability sample	59	133	241	433 (51.4%)
Sampling unclear	5	8	12	25 (3.0%)
<i>Qualitative</i>				
Probability sample	0	0	2	2 (0.2%)
Population study	2	0	8	10 (1.2%)
Nonprobability sample	1	1	14	16 (1.9%)
Sampling unclear	0	0	2	2 (0.2%)
<i>Both</i>				
Probability sample	2	0	6	8 (0.9%)
Population study	1	2	9	12 (1.4%)
Nonprobability sample	0	5	25	30 (3.6%)
Sampling unclear	0	0	8	8 (0.9%)
Totals	109 (12.9%)	252 (29.9%)	481 (57.1%)	842

contact with a person or media message (see Table 2). In contrast, social science studies predominately generated primary data (84.8%).

Because of the way the final two operational elements (use of theory and sampling) were defined, their analysis is limited to profiling mass media research within the social science paradigm.

Use of Theory. With social science articles, less than 13% referenced a theory as a foundation for the study (see Table 3). Despite the low number of theoretically motivated studies, there were 31 different theories named. Only eight were named more than twice. Agenda setting had 20 mentions, while uses and gratifications had 18, and cultivation 17. Diffusion theory had 11; arousal, 6; Piaget's developmental theory 5; and there were four mentions each of social learning theory and knowledge gap.

Sampling. Of the 842 social science articles, 479 (56.9%) used a nonprobability sample and with another 35 articles (4.2%) the sampling was unclear (see Table 3). Only 235 (27.9%) used probability sampling and the remaining 11.0% did not sample, that is, they were population studies.

Discussion

Prevalence of Paradigms

The social science paradigm accounts for the majority of the research in the mainstream journals. This analysis shows that the social science paradigm has clearly grown in prevalence in the journals examined over this 25-year period. In the early years of this analysis (1965 through 1971), the interpretive paradigm accounted for the majority of the research, but by 1974 social science had become the majority paradigm and its prevalence continued to grow to a high of 70% of the research in 1989.

Because the sampling frame used in this study does not reflect the total range of outlets for media scholarship, these results should not be generalized to scholarship in the entire field of media studies. It may be likely that the research appearing in other outlets (such as regional journals, nonreferred journals, monographs, and books) does not follow the pattern found in this study. To determine if this is the case, additional content analyses should be performed. Comparing the results from such studies should provide a more complete picture about the prevalence of the three paradigms in mass media research.

Dominance of Paradigms

There is a temptation to argue that prevalence is sufficient to infer dominance. Because the majority of mass media research is social scientific, can we not infer that the scientific paradigm is dominant in this area of inquiry? The answer is no for at least three reasons. First, according to Kuhn, the dominant paradigm influences *all* the mainstream research in the field. There may be scholars who do not ascribe to that dominant paradigm, but their work does not get an airing to any substantial degree until a revolution occurs and their new paradigm takes the place of the old paradigm. Kuhn does not allow for an evolution of thought where a new paradigm gradually gains ascendancy and eventually replaces the old one or eventually coexists with the old paradigm. The results of this study demonstrate more of an evolution than a revolution. And furthermore, there is a coexistence of three paradigms where social science may be more prevalent, but it never accounts for more than 70% of the research in any given year.

Second, prevalence cannot be used to infer dominance, because it is not safe to assume that each article is equally influential. Certain lines of research or methods of research appear to be more promising or more intriguing than others, and these can become very influential even though they do not present many examples. There may be some very insightful scholars who produce only a few articles or books, but their ideas may have a very powerful influence on the thinking of other scholars.

Dominance, therefore, should be conceptualized more in terms of output (influence on research), than inputs. Research that uses this output conceptualization is very scarce. So and Chan (1991) came close to examining this when they surveyed 399 mass media scholars and asked them to name the most important concepts and theories in the field. Their results indicate a strong influence of social science, because each of the top 10 named concepts and theories was social scientific (agenda setting, uncertainty reduction theory, diffusion of innovations, uses and gratifications, systems theory, schema theory, spiral of silence, and information processing). Only five respondents named semiotics, cultural studies, dramatism, or ideology.

There is no evidence, at least in the major journals of media research, that there has been a paradigm shift away from social science. It is possible that such a shift could occur in the future. Perhaps scholars espousing other paradigms are being excluded from the mainstream journals, and they are sharing their work through other outlets. If their work has a powerful influence on the next generation of scholars, their paradigm will replace the old paradigm, and their work will suddenly dominate the new mainstream journals. This is the Kuhnian perspective.

However, it does not appear that Kuhn's scheme holds in mass media research where several paradigms appear to coexist. At this point, it appears that the safest conclusion is that the ideas of Craig or Krippendorff probably more accurately reflect the configuration of scholarship in our field. Craig (1989) sees the social science (empiricist) paradigm coexisting with two others. Each of the paradigms has a preferred channel for sharing its scholarship. With social science it is the set of mainstream journals. With scholars operating in the other paradigms it might be a different set of journals or books and monographs.

Krippendorff (1989) characterizes the research field as being preparadigmatic because it is struggling to achieve a social science perspective but it has been unable to meet the minimum standards. These two elements of emulation and failure are evident in the profile below.

Profiling the Social Science Paradigm

Many of the research elements that profile the majority of studies categorized as belonging in the social science paradigm show that mass media research is similar to research in the other social sciences. As for data, all the mass media research that was classified as social science relied on some form of data, and over 95% of it used quantitative data, which indicates that the trend documented by Perloff (1976), Schramm (1957) as well as Webb and Salancik (1965) continued into the late 1980s.

The major focus of this social science research is on asking questions about the effects (33.5%) of the mass media, and almost all of these studies are oriented toward effects on individuals rather than on groups or larger social units such as society or culture. This conforms to the trend found in sociology (Brown & Gilmartin, 1969).

This pattern of emulation of the social sciences is not surprising given the findings that mass media research is a net importer of ideas from other fields (Paisley, 1986; So, 1986). Communication researchers are much more likely to cite studies from noncommunication journals than from journals within their own field.

But this emulation has not been successful, if the criterion for success is that mass media research meet certain scientific standards. If the elements of that criterion are a theoretical orientation and quantitative data gathered in a probabilistic manner so as to insure representativeness, then very little (only 36 studies or 4.3%) of the so-called "social science" research is scientific. Almost all (95.5%) of the mass media social science studies use quantitative data, but most of these studies do not use probabilistic samples. In 479 studies a nonprobability sample was used and in another 35 studies it was unclear what sampling method was used. Taken together these two categories account for 61.0% of all social science research. This is especially surprising when you consider that in more than 57% of all these published studies the researchers used primary data, which means that they had control over the data gathering.

But the biggest barrier to meeting the criterion of science is with theoretical foundation where only 109 articles (12.9%) are theory driven. By a theoretical foundation, it is meant that a researcher acknowledges a theory, then deduces from it an hypothesis to be tested. In contrast there is the inductive method of

moving toward theory where a researcher treats the phenomenon as a mass of individualized elements that have no explanatory pattern; the researcher focuses on a small set of those elements by asking a question about them, then makes observations in an attempt to explain some regularities. This inductive method is characteristic of new fields where there is no theoretical work to guide research. But our field does not *lack* theory because there were 31 theories named, many of which are very respected and well-known theories in related fields of study such as psychology and sociology. And there were three theories (uses and gratifications, cultivation, and agenda setting) that have been formulated within the mass media research field by predominately mass media scholars. Theories that explain mass media phenomena *do* exist, and they are available to mass media scholars. But these theories (or any theories) are rarely used.

It appears as though a great deal of research is generated in an inductive manner where a question will be posed and the researcher will attempt to provide an answer. Those answers help us to understand the phenomenon better and these individual results form the raw material of later syntheses that evolve into theories. So this study should not be interpreted as a criticism of inductively derived research. There are many uses for individual exploratory research studies to contribute to the overall nature of the scientific enterprise within a field. Exploratory research helps in the areas of benchmark studies (such as usage of new technologies and audience patterns), initial formation of concepts, measurement issues, and the like. However, a field that is predominately characterized by inductively generated research is an immature field in the scientific sense and is more accurately regarded as merely an area for exploration. In contrast, more mature fields have highly visible formal theories that clearly guide the research and make the identification of paradigms easier.

The field of mass media research does not have a great deal of operational or conceptual leverage. On the operational level, most research does not utilize a probability sample. Because of this limitation, inferential statistics are meaningless, and researchers are limited to describing patterns within their samples. They cannot leverage their results into a discussion about larger, broader, and more interesting groups. There is also a lack of generalizability on the conceptual level. When researchers do not deduce an hypothesis from a larger system of explanation, they are limited to lower levels of description. They cannot leverage their results to abstract conceptualizations. Also, they do not have the ability to conceptualize the critical test that might falsify the theory; instead they are constrained to contribute a limited finding along with some tentative speculations. Without a theory as a reference point, the reader of an article cannot assess the extent to which a research finding is a reflection of a measurement anomaly, an alteration of a definition of a crucial construct, or an artifact of a particular analysis, or whether it indeed reflects the phenomenon of interest. The most that a nontheoretical researcher can hope for is that his or her finding might eventually be accumulated with other limited findings into a theoretical statement by some later scholars undertaking a synthesis of a body of literature. When a lack of operational and conceptual leverage characterizes a research field, it is very difficult to make a case for the field being scientific.

Because of its predominately exploratory nature, the body of mass media research would be more accurately described as prescience. Perhaps Krippendorff (1989) is right. Media scholars motivated to deduce hypotheses from formal theories must collect data using probability samples and analyze those data with appropriate quantitative methods. Otherwise, we are not performing research to achieve the purpose of scientific explanation. And until we are able to do this on a broad scale and consistent manner, we cannot be regarded as a scientific field.

So do we have even one paradigm? Perhaps prescience is itself a paradigm to mass media researchers. It is clear that the majority of mass media research is conducted in a manner to emulate social scientific research. The purpose is to explain patterns in the media using observable data, almost always quantitative. However, there is a serious problem in following through on this purpose. While much of this research has the trappings of social science, it is really descriptive, suggestive, and interpretive. But because there is so much of this type of research and because these researchers so consistently, and unquestionably, share the same assumptions and rules, perhaps this can be considered a paradigm.

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