The supposed and the real role of mass media in modern democracy

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Abstract. A range of different scientific disciplines are explored for what they might contribute to an understanding of the economic and other factors that influence mass media, and how the media in turn influence the political climate and the democratic process in modern democracies. The contributions from the different disciplines are combined into an integrated model of a causal network. This tentative model shows that fierce economic competition forces the media to produce entertaining stories that appeal to people's emotions. Preferred topics include danger, crime, and disaster, which the media select in ways that make the audience perceive the world as more dangerous than it is. This influences the democratic process significantly in the direction of authoritarianism and intolerance.

More generally, the competitive news media select and frame stories in ways that hamper the ability of the democratic system to solve internal social problems as well as international conflicts in an optimal way. These effects are unintended consequences of the structure of the media market.

The empirical support for each element in the theory, as well as for the integrated model as a whole, is discussed in an appendix.

Key words: democracy, mass media performance, advertising, competition, unintended consequences, social issues, media psychology, media economics.

1 Introduction

The mass media constitute the backbone of democracy. The media are supplying the political information that voters base their decisions on. They identify problems in our society and serve as a medium for deliberation. They are also the watchdogs that we rely on for uncovering errors and wrongdoings by those who have power. It is therefore reasonable to require that the media perform to certain standards with respect to these functions, and our democratic society rests on the assumption that they do (Venturelli 1998; Kellner 2004; McQuail 1993; Skogerbo 1996). The most important democratic functions that we can expect the media to
serve are listed in an often-cited article by Gurevitch and Blumler (1990). These functions include surveillance of sociopolitical developments, identifying the most relevant issues, providing a platform for debate across a diverse range of views, holding officials to account for the way they exercise power, provide incentives for citizens to learn, choose, and become involved in the political process, and resist efforts of forces outside the media to subvert their independence.

However, there is a growing concern that the mass media are not fulfilling these functions properly. Media critics claim that commercial mass media controlled by a few multinational conglomerates have become an antidemocratic force supporting the status quo (Kellner 2004; Herman and Chomsky 1988; Herman and McChesney 1997; Alger 1998; McChesney 1999; Keane 1991). The news are more entertaining than informing, supplying mostly gossip, scandals, sex, and violence. Political news are more about personalities than about their ideologies. In the absence of serious debate, voters are left with paid political propaganda containing only meaningless slogans making them disinterested and cynical about politics (Bagdikian 1983; Fallows 1996; Capella and Jamieson 1997; Bennett and Entman 2001; Barnett 2002). It is also claimed that the watchdogs are barking of the wrong things. The media hunt for scandals in the private lives of politicians and their families, but ignore much more serious consequences of their policies. They go after wounded politicians like sharks in a feeding frenzy (Sabato 1991). All too often, the media make us afraid of the wrong things. Minor dangers are hysterically blown out of proportions, while much more serious dangers in our society go largely unnoticed (Glassner 1999). The exaggerated fears often lead to unnecessary measures and legislation and “gonzo justice” (Altheide 1995, 2002; Altheide and Michalowski 1999).

Critics also complain that the media fail to report wrongdoings in the industry. For example, many media have suppressed information about the health hazards of smoking due to pressure from advertisers (Cirino 1973). Alarming is also the claim that certain mass media (especially women’s magazines) are promoting worthless alternative health products, thereby effectively conspiring with the industry to defraud consumers of billions of dollars every year (Barrett and Jarvis 1993; Jarvis 1992).

If all these claims have any merit at all, then we have to drastically revise our view of the way our democracy works. The Concise Encyclopedia of Democracy (Dehsen 2000) makes only brief mentioning of the possibility of political, commercial or other influences on the mass media. Most other treatises on the theory of democracy make no mentioning at all of any such problems (see, though, Key 1961).

The political and cultural consequences of this alleged misinformation of the public are not fully explored. What are the effects of the commercialization of news
on the democratic process? Which way does this influence push the development of our society? The study of these questions is difficult because it must integrate findings from many different scientific disciplines. The purpose of the present article is to scan a number of relevant scientific disciplines for what they might be able to contribute to a study of these problems. In the following sections, the relevant knowledge from each area of research is summarized and commented, and some uncertainties and lacunas of knowledge are pointed out. Finally, it is attempted to integrate these findings into a coherent model that can throw light on the problems mentioned above. In the construction of this tentative model, I have borrowed heavily from general selection theories, and especially evolutionary economics. This paradigm provides an excellent integrating framework for three reasons: (1) its emphasis on non-equilibrium phenomena as an important factor in socioeconomic change, (2) its population-based focus on selection events as an explanation of emergent phenomena, and (3) its ability to describe the coevolution of institutions and their social environment (Saviotti 2003; Murmann 2003). The strengths and weaknesses of the model are discussed in an appendix, and some of the predictions of the model are tested on statistical data.

The normative expectations for a democratic press, as proposed by Gurevitch and Blumler (1990), are not universally accepted (McQuail 1993, 2003; Norris 2000; Skogerbo 1996). I shall therefore refrain from making any subjective statements here about which norms to apply. Instead, I will provide an analysis of major consequences of the media market structure to the distribution of power, the prioritization of resources, and the ability of the democratic society to solve social problems and conflicts. Any policy proposals that may be derived from this analysis depend on ideological norms, and are thus beyond the scope of a strictly scientific analysis.

There is a long-standing debate about the relevance of causal and nomothetic models in the social sciences (Martin and McIntyre 1994). This is not the place to delve into this debate. It is obvious that the topic of the present article cannot be treated without such models, and adequate arguments for the possibility and necessity of nomothetic analysis have been published elsewhere (Kincaid 1996; McIntyre 1996).

2 Media economics

Most newspapers, radio- and TV stations get most or all of their income from advertisements and sponsoring. The media will therefore seek to optimally satisfy the
interests of their advertisers, which are not necessarily coincident with the interests of the readers, listeners and viewers (Baker 1994; McManus 1994).

The predominant view among economists is that free competition generally benefits society because it provides the most differentiated supply of commodities to the optimal price. This line of reasoning dominates European as well as American media policy (Blumler 1992; Graber 1993; Noam 1991; Sepstrup 1989).

It is well known, however, that free competition does not always consider all interests. The term *market failure* describes the situation where the free market forces do not automatically lead to maximal welfare (often defined as the sum of benefits to all parties). Market failure may occur, for example, when consumers are unable to evaluate the quality of a commodity, when third party interests are affected (externalities), or when production has large fixed costs (Cowen 1988; Sinn 1997; Harris 1981; Doyle 2002; McManus 1995).

In the case of media financed by advertisements exclusively, the interests served are those of the advertisers. The interests of the media consumers are satisfied only insofar as these are coincident with the interests of the advertisers (Doyle 2002; McManus 1994, 1995). There is no guarantee that public interests are served well. This is the reason why many countries have public radio- and TV stations with public service obligations. Liberalizing the media market and relying on the free market forces are policies that are often used for the express purpose of making sure that all interests are served. Many theorists ignore, however, that the media not only satisfy consumer preferences, but also form them (Entman and Wildman 1992).

Many economists assume that competition increases diversity. Numerous policy discussions have recommended increased competition as the best way to assure diversity which, it is assumed, will make sure that all interests are served well. However, this strategy has failed time and again because the underlying assumptions are wrong. It has been known for many years that there is a strong tendency towards wasteful duplication of the most popular program forms under free competition (Steiner 1952; Wildman and Owen 1985). There is considerable uncertainty over whether competition increases or decreases the diversity and quality of media products (Li and Chiang 2001; Litman 1992; Anderson and Coate 2005; Wright 1994; McQuail 1993). While moderate competition may increase diversity, it has been found theoretically as well as empirically that *excessive competition may lead to decreased diversity* (Wurff and Cuilenburg 2001, Blumler et al. 1986; Li and Chiang 2001; Berry and Waldfogel 1999; Einstein 2004). Assume, for example, that a country has two competing commercial TV-stations with each one channel. In this
case they will most likely both try to maximize their market share by sending the same kind of programs that appeal to the broadest possible audience. But if, on the other hand, both channels are owned by the same TV-station, then the owner will seek to minimize competition between the two channels by sending different types of programs on the two channels. The conclusion is that reduced competition may lead to increased diversity.

Most studies of the effect of market structure on the quality of mass media products use diversity as the only measure of satisfaction of consumer needs (Napoli 1997; Einstein 2004). Diversity is the most objective criterion and the one that is most easily measured. Some authors explicitly state their unwillingness to use more subjective quality measures (Wildman and Owen 1985), but a few scientists have demonstrated that it can be done. McQuail (1993, 2003) provides a detailed discussion of quality criteria, Napoli (2001) finds that market incentives are not sufficient for promoting public affairs programming, and Zaller (1999a) concludes, “for every set of cases in which I am able to make plausible comparisons, higher levels of market competition are associated with lower levels of news quality”. Diversity may indeed be a poor measure of quality. If we assume that there is a positive relationship between production costs and the quality of a media product, and if we further assume that the total revenue from a particular niche of the media market is limited, then we can conclude that the more competitors there are to share the niche, the less income will each competitor have to spend on improving quality. This simple model suggests that there may in fact be a negative relationship between diversity and quality (Litman 1992). A more detailed theoretical analysis confirms that competition may indeed lead to decreased program quality (Nilssen and Sørgaard 2000).

It has been criticized that the diversity that is measured is a diversity of form, not of contents, and even less does it represent a diversity of opinions or ideologies, nor a satisfaction of consumer interests (Napoli 1999). A diversity of program formats is hardly related to fairness, relevance, thorough investigation, or other requirements that we expect a democratic press to meet. The available studies of diversity therefore fail to capture the central problems related to the democratic role of the media. It is necessary that media economists introduce other quality measures in studies of the relationship between market structure and the quality of mass media products (Entman and Wildman 1992). Lacking better criteria, we may use production costs as a reasonable measure of quality (Litman 1992).

Many mathematical models are based on the assumption that a TV program or other media product satisfying a specific demand is produced at fixed costs. The
product is either produced or not produced, depending on whether it is profitable (e.g. Spence and Owen 1977). This simplification fails to cover the easily observable fact that a media product satisfying a specific demand may be produced in varying degrees of quality at varying costs. If many competitors share the same product niche then each competitor will have less income to cover production costs and will therefore be forced to make a product of lower quality. For example, if many competitors share the market for political news, then each competitor will have few resources for investigative journalism and will only be able to uncritically relay the messages from politicians and news agencies. Several studies have found a negative correlation between competition and news quality (Zaller 1999a,b; Hvitfelt 1994; Hjarvard 1999).

You may expect that at least free competition leads to an optimal satisfaction of the interests of the advertisers, but this is not the case according to a study of the American radio broadcasting market (Berry and Waldfogel 1999). Theoretical calculations show that free competition may favor products with high variable costs rather than products with high fixed costs; because as the number of suppliers gets higher, each supplier has less income for covering the fixed costs (Spence 1976, Mankiw and Whinston 1986). When applied to mass media, this theory means that more competition may lead to lower quality if we assume that there is a positive correspondence between production costs and quality (Spence 1976; Baker 1994). Several observations confirm this (Blumler at al. 1986, Hvítfelt 1994, Lin 1995). If we assume that media products of higher quality can attract a larger audience, then we must conclude that excessive competition benefits neither consumers nor advertisers.

Denmark is regarded as a good test case because it had a state monopoly TV station until 1988 when one, and later more, commercial TV stations were introduced. The introduction of competing TV stations were motivated by the desire to improve the quality and diversity of the program supply and to make sure that minority interests were satisfied. A government commission recommended competition as the means to obtain these goals, in spite of the fact that they were aware of experiences from England and Sweden showing that competition might reduce program quality (Mediekommissionen 1983). The commission was not aware of any theory that could explain the latter effect (Bjarke Fog, pers. comm. 2002). A recent investigation has shown that the competition has not improved the quality of news production (Hjarvard 1999), confirming the prediction by Sepstrup (1989). In Sweden, where the market situation is similar, it has been observed that TV news have become more dramatic, sensationalist, and less informative, as the competition
has increased (Hvitfelt 1994). In Finland, an increase in the number of TV channels has not led to increased diversity of the available programs (Hellman 2001).

3 Developments on the media market

The development of the mass media during the last several decades is characterized by the following main tendencies:

Convergence: Different media like newspapers, radio, television, telephone and internet are increasingly being fused together, technologically as well as economically.

Concentration: Media companies are being merged together and controlled by fewer owners. This concentration is horizontal (several media under the same owner) as well as vertical (several links in the "food chain" under the same company group). Different media bring news from the same sources.

Globalization: The media are owned by multinational companies broadcasting across borders.

Commercialization: Advertisements are sneaked into entertainment as well as news stories. The distinctions between advertisements, news and entertainment are increasingly blurred. Audience groups with less spending money are not considered.

Commercial influence: Advertisers and owners have influence on editorial decisions.

Trivialization: More sex and violence. More prying into the private lives of celebrities. The media avoid controversial issues and serious debates. Debates are reduced to an entertaining clash between personalities, resembling a boxing match, where the issue of controversy has only secondary importance.

Several media scholars agree that the main cause of these tendencies is the liberalization of the media market. Stories are selected for profitability rather than relevance. (Bagdikian 1983; Baker 1994; McManus 1994; Humphreys 1996; Shoemaker and Reese 1996; Herman and McChesney 1997).

4 Popularization of the media

The simulation of proximity is an important element in popularization. A political decision can be difficult to explain in abstract terms. It helps when the medium shows an ordinary person telling what the consequences of the decision is for him or her. The audience feel that a story is more convincing when they see an example they can identify with. But in fact it is less credible because the example may not be representative. A magazine can show a person who felt better after
taking a certain brand of alternative medicine, and fail to show the 99% who felt worse after taking the same medicine.

Advertising has a profound influence on the choice of programs. TV advertisers prefer to have their commercials shown in association with soft entertainment. Ideal from the advertisers' point of view are shows such as competitions where one can win sponsored merchandise, or soap operas that portray a privileged lifestyle where luxurious goods give status (Shoemaker and Reese 1996).

This does not provide good conditions for the political debate. It is difficult to find sponsors for serious political debates because these do not make the viewers relax and because some of the viewers will disagree with the points of view presented (Herman and McChesney 1997; McManus 1994, 1995).

Furthermore, the commercial media are not very inclined to cover controversial issues in a balanced way. People prefer to hear points of view that they agree with. It is therefore adverse to the media's economy to view a controversy from both sides and present alternative points of view. The media are prone to choose side in a controversy; and if later evidence should favor the opposite side, they are likely to keep silent about the matter rather than loosing face. Disclaimers are not profitable. This is a self-amplifying process. The more the media create consensus about a particular issue through biased coverage, the fewer proponents of the opposite view will there be to balance the issue, and the more difficulties will these proponents have in gaining access to the media (Ericson et al. 1989).

Nowhere is this bias problem worse than in crime reporting. The media often take a stance on the question of guilt before a verdict has been made. The police and the prosecutor are often very willing to express themselves because it gives them a PR gain and an opportunity to ask the public for help in solving crimes, while a suspect has few, if any, possibilities and resources for replying (Ericson et al. 1989). It is very unlikely that judges can resist being influenced by this when a media frenzy has created a public outcry against a particular suspect (Steblay et al. 1999).

The legal possibilities of forcing the media to publish disclaimers or to give a voice to alternative points of view are quite illusory, and the means of sanctions are far from effective (Ericson et al. 1989; Soothill and Walby 1991).

The printed media cannot compete with the ability of the electronic media to keep their audience spellbound by strong sense impressions. The newspapers have their strength in the possibilities for in-dept analysis of social and other topics. However, this possibility is not fully exploited because the journalistic resources are
limited by economic competition, and because this parameter of competition only
gives access to a limited niche of the reader market.

Many papers and magazines therefore compete on news about celebrities
and topics that appeal to the emotions (McManus 1994). Everything that is
dangerous, deviant or wrong has a prominent place, especially in those papers that
are mainly sold from newsstands. They want to have a new scandal on the front
page every day in order to tempt people to buy the paper. We may expect to see
similar approaches when electronic pay-per-view media become more common.

Radio- and TV-channels based on advertising use fewer horror effects,
because this would conflict with the principle of bringing the viewers into a buying-
mood. This does not improve the journalistic and artistic quality, however. Many
media workers are frustrated that their creativity is curbed by the economic
structures, and the situation is hardly better for advertisement-free commercial
media, such as home video and pay-TV (Blumler and Spicer 1990).

5 Selection in the media

Traditionally, media scholars have described the selection of news with
concepts like gatekeeping and newsworthiness. These concepts are based on a
scenario where an editor or journalist sorts incoming news according to news value
and political criteria.

Social problems involving fear and danger are very attractive to the media
and such topics often make up a significant part of the stories (Altheide 1997, 2002;
Altheide and Michalowski 1999). The excessive focus on fear and danger has
important political implications. For this reason, I will discuss it in more detail later in
this article.

The dissemination of news may occasionally be so selective and biased that
you may accuse the media of manipulation and propaganda, for example in
connection with war (Herman and Chomsky 1988). But in general we do not have to
impute dishonest motives on producers in order to explain media distortion. Most
cases of selection in the news media can be explained by structural factors, such as
the organization of news agencies, financing, dependence on sources, and ratings
competition (Ericson at al. 1987).

The news coverage is determined by such factors as the journalist's
knowledge, predefined news formats, deadlines, the authority of sources, and the
possibility of obtaining good pictures. The media may not publish a story if it does not
fit into an existing format or if it does not relate to an existing theme. The media are
self-referential to such a degree that the newsworthiness of a story may be a self-
fulfilling prophecy. A topic is interesting because all the media tell about it.

Violent crimes and sex crimes are areas where the news reporting is highly
selective. The media prefer emotional stories, sobbing victims, and stories that fit into
the political agenda and confirm the image of the criminal as a monster. The use of
expert sources has been found to be extraordinarily selective (Soothill and Walby
1991; Ericson at al. 1991; Chermak 1995; Altheide 1997).

The media play a key role in the public debate on risks and dangers, but their
coverage is highly selective. At times the media exaggerate minor risks where
reassurance would be more sensible. In other cases they ignore serious risks, e.g.
when new technologies are uncritically described as progress (Kitzinger and Reilly
1997; Glassner 1999).

It is an essential problem when informing about risks and dangers that the
concept is abstract and invisible until it manifests itself in a specific accident or
disaster. The media do not like to report on hypothetical risks. They need a real event
that the theoretical discussion can be related to and real people to give the story a
human-interest dimension.

Risk analysts have been criticized for ignoring these problems and not
focusing enough on the mass media. The media may be attracted to risks, but not
unconditionally so. They are not good at maintaining attention to a theoretical risk
when there are no actual events to make the topic newsworthy (Kitzinger and Reilly
1997).

There is an unusually fierce competition between sources when it comes to
informing about risks, dangers and other social problems. Various interest groups,
politicians and experts seek to promote each their agenda on which dangers to fear.
The media inevitably play a key role in this conflict because their choice of which
"experts" to listen to influences the definitions of dangers and hence the political
agenda. Governments have to take a stance to whatever problem the media place
high on the agenda. The media's decision on who is allowed to define a problem, or
whether the problem is mentioned at all, has important political consequences, but
this selection is not controlled in a democratic way (Kitzinger and Reilly 1997;
Altheide 2002).
6 Media effects

There are many different theories about how mass media influence people's attitudes, worldview, and behavior. Here, I will mention the ones that are most relevant to the topic in question.

While historical as well as contemporary observations are full of examples attesting to the power of the mass media to influence people, early experimental studies have failed to confirm the assumption that mass media have a strong power to change people's attitudes (McGuire 1986). This discrepancy between experiments and real world observations was solved with the introduction of theories of cognitive processing, such as agenda setting, framing, and priming (Lowery and DeFleur 1995).

6.1 Cognitive processing

The human cognitive capacities are limited. The news media contain huge amounts of information, much more than any person can possibly handle. It is therefore theorized that humans are economizing the processing of the information they receive from news media as well as from other sources (Graber 1988, 2001). The first step in the handling of information is selection. People chose which news media to read, watch, and listen to, according to their needs and preferences. They are screening the media for interesting information, ignoring topics that appear to be irrelevant to them, redundant, boring, or too complicated to comprehend. People routinely reject stories that appear too remote or too complicated simply to save time and energy. Stories that catch people’s attention are those that are relevant to their personal interests, but also general human-interest stories such as reports about crimes and accidents, health, sports, entertainment, and celebrities. The producers of news have learned to snare people’s attention by giving most stories a personal touch.

Once a story has been selected for attention, the cognitive processing of the story is further economized by schematic thinking. Humans use what has been called knowledge structures or schemata (sing. schema) as mental templates that people and events are fitted into. This process facilitates the integration of new information into existing knowledge. Since news sources usually present the news in isolated snippets without sufficient background, the schemata allow the receivers to embed the news into a meaningful context. This process also facilitates discarding redundant information that already exists in the schema as well as information that conflicts with previous knowledge that still appears to be sound.
People often misunderstand stories, either because they do not have an appropriate schema for interpreting the story, or because they apply the schema that comes first to mind rather than the schema that is most appropriate. Well-informed people have a rich collection of schemata that makes it easier to process new information. Thus, the information-rich become still richer (Graber 1988).

6.2 Agenda setting

The effect of agenda setting is epitomized in the famous quote by Bernard Cohen (1963), saying that the press "may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about". People need to orient themselves in a complex world full of complex issues. In the absence of other cues, people tend to judge the importance of issues from their salience in the media and to focus their attention on those presumably most important issues. There is plenty of evidence that the media have a strong influence on people's perception of which issues are important and which problems they want their government to do something about (McCombs and Reynolds 2002). The agenda-setting influence of the news media increases when the need for orientation among the audience is high. The agenda-setting effect is lower for obtrusive issues that people can observe directly, as well as for other issues that the audience is well informed about. The media have little power to set the agenda when people have sufficient political knowledge to counter-argue the claims made by the media (Iyengar et al. 1982; McCombs and Reynolds 2002). Furthermore, the agenda-setting effect is stronger for concrete issues that are easy to visualize than for abstract issues (Yagade and Dozier 1990).

While the powerful effect of agenda setting is generally accepted among media scholars, there is some uncertainty about who sets the agenda. Some studies show that politicians have a strong influence on the agenda of mass media, at least in areas such as economic policy (Kleinnijenhuis and Rietberg 1995, McCombs and Reynolds 2002). But, as discussed in the preceding paragraphs, the media may themselves put attention-catching issues on the agenda for economic reasons, especially sensationalistic issues involving danger, crime, sex, and celebrity scandals. Access to the public agenda is a limited and precious resource (Zhu 1992) that special interest groups often compete for, as discussed below.

6.3 Priming

Closely related to agenda setting is the effect of priming. Priming refers to the fact that one piece of media information can influence how we interpret subsequent
pieces of information by making us tune in to certain areas of thought. Thus, the
news media can influence the criteria by which political candidates are judged by
calling attention to some issues and ignoring others before the speech of the
candidate. For example, the support for US president Bush dropped significantly in
1992 because an intense media focus on economic recession made voters shift from
evaluating the president in terms of his handling of the Gulf war to evaluating his

The priming effect is often explained in terms of schematic thinking. When
evaluating new information or making a decision, people tend to apply the
information and schemata that are most readily accessible or available in memory at
that moment, rather than conduct a complete and comprehensive search and
examination of information. A schema may be readily accessible to the individual
either because it has recently been activated and remains in short-term memory, or
because it is linked in memory to other constructs which have been activated (Goidel
et al. 1997; Domke et al. 1998; Graber 1988). Other possible mechanisms are
discussed by Roskos-Ewoldsen et al. (2002).

6.4 Framing

Another cognitive effect, which may be explained as a consequence of
schematic thinking, is framing. Framing refers to the frame of reference within which
an issue is described (Pan and Kosicki 1993). For example, a news broadcast about
the development of new nuclear weapons can variously be framed as a story about
technological progress, about military budgets, about military strategy, about balance
of power between nations, about arms race versus disarmament, or about radiation
hazards. The way the story is framed can have a strong influence on people's
attitudes towards the issue.

It is often assumed that framing is a kind of second-level agenda setting in the
sense that it makes certain aspects of an issue more salient in such a way as to
promote a particular problem definition (Entman 1993; McCombs et al. 1997).
However, it has been argued that framing influences how audiences think about
issues, not by making aspects of the issue more salient, but by determining which
schemata are activated in the interpretation of the incoming information (Scheufele
2000; Graber 1988). While Entman's often cited definition of framing implies that the
effect of framing is likely to be intentional, Scheufele's model implies that framing is
based on subtle nuances in wording and syntax so that the effect of framing is most
likely unintentional. Since every story must have a frame, whether the journalist pays
attention to framing or not, we cannot assume that the effects of framing are always
intentional. Several theorists make a distinction between frames in the media and frames in the minds of the audience. A media frame is "a central organizing idea or story line that provides meaning to an unfolding strip of events..." Audience frames are defined as "mentally stored clusters of ideas that guide individuals' processing of information" (Scheufele 2000). These definitions should be preferred because they have a better theoretical foundation and because they make no assumption about whether a particular media frame is intended to promote a particular audience frame.

A review of the studies on framing finds that the concept is often vaguely defined and there is more research to do. On the other hand, the review leaves no doubt that framing in some cases can have a profound effect on the attitudes, worldview, and behavior of the audience (Scheufele 1999).

The commercialization and trivialization of news media has a strong influence on how issues are framed in the commercial news media. Framing political news around the strategies of politicians rather than issues makes the audience perceive the motives of politicians as egoistic, whereby a cynical view on politics may be fostered (Capella and Jamieson 1997, but see Norris 2000). Stories about social problems are often framed with a focus on people rather than principles, single events rather than themes, and easily understandable proximate causes rather than deeper and more complex causes. This choice of framing influences the attribution of responsibility for the problems, the causal attribution, and the remedies that will be chosen to ameliorate the problems in question (Iyengar 1991; Altheide 1997; Altheide and Michalowski 1999; Vaughan and Seifert 1992). The media will often find some person to blame for a problem, but without a deeper focus on the social structures that caused the problem, it is unlikely that an effective solution to the problem will be found and accepted. Entertainment abhors ambiguity. Once a particular interpretation has been applied to a conflict, it is unlikely that the media will reframe the issue. Without seeing an issue from more than one side, it is unlikely that the conflict or problem will be solved in a sensible way (Altheide and Michalowski 1999; Altheide 1995).

For example, Iyengar (1991) mentions violent crime, which ranges high on the media agenda. The personalized framing of crime stories is likely to make the audience see the cause of the problem in moral defects of the perpetrator. The lack of focus on deeper causes such as poverty, discrimination, poor education, and blocked opportunities may keep the audience from supporting more effective preventive remedies against crime. The commercial need for personalization of stories also make the media focus on victims of crime. Grieving victims make good stories with a strong emotional appeal. The strongly emotional content of these
stories is likely to evoke the primitive feelings of revenge in the audience and a call for stronger penalties, regardless of whether punitive measures can solve the problem or not (Chermak 1995).

Crime reporting is just one example of this effect, and admittedly a controversial one (differing frames may indeed explain why this issue has become controversial). The pervasive media focus on people rather than principles, events rather than themes, and simple rather than deep causes, is adversely affecting the problem-solving capabilities of democratic societies on a broad variety of issues, ranging from poverty to international conflicts (Iyengar 1991; Iyengar and Reeves 1997; Altheide 1991, 1995, 2002; Altheide and Michalowski 1999; Chermak 1995).

6.5 Cultivation theory

Not only news and documentaries can influence people's perception of the world, but also fiction and entertainment shows. Cultivation theory is a research tradition, which assumes that there are certain repetitive and pervasive patterns of images and ideologies dominating most genres of television shows and films. If people spend several hours a day, year after year, watching television, and if every show they watch is full of violence, then people may come to believe that the world is full of violence. This is the kind of hypotheses that cultivation studies are trying to prove (Shanahan and Morgan 1999; Signorielli and Morgan 1990).

There can be no doubt that the television world is different from the real world. News and drama alike contain more crime and violence than the real world. The proportion of violent crimes to nonviolent crimes is much higher in TV than in the real world. The characters portrayed in TV drama are not representative of the population at large. There are more men than women and an over-representation of people in prestigious professions. Numerous studies have found that heavy TV-viewers tend to over-estimate the amount of violence in society, the risk of falling victim to a violent crime, the fraction of the population engaged in law enforcement, the fraction of the population with prestigious professions, the fraction of the population that have marital discords and extramarital affairs, etc. The observed effects are relatively weak, but consistent and statistically significant (Morgan and Shanahan 1997; Shanahan and Morgan 1999).

The effects of receiving the high dose of crime and violence from television have been called the mean world syndrome. Heavy TV viewers may come to perceive the world as a gloomy and dangerous place. People become fearful of falling victim to violent crime and take drastic measures to protect themselves and their children - measures that are out of touch with the objective risk. The fearful
people become authoritarian and easy victims of political manipulation (Signorielli 1990; Reith 1999; Diefenbach and West 2001).

Many Cultivation theorists assume that the pervasive patterns of TV images are shaped by commercial influence (Shanahan and Morgan 1999). Most cultivation studies are carried out in the USA where the commercial influence on television is strong. A few studies in countries where non-commercial television has a significant impact, find the "mean world" effect to be smaller than in the USA (Wober 1990; Cohen and Weimann 2000; Morgan and Shanahan 1997). The hypothesis of commercial influence is further supported by a few international comparisons that find the cultivation effects to be stronger in countries where commercial television dominates than in countries with predominantly noncommercial television (Gerbner et al. 2002).

The very broad-based focus has made cultivation studies vulnerable to criticism. The lumping together of all genres and all viewing patterns is likely to dilute the observed effect. This may be the reason why the observed correlations are weak. Evidently, some TV genres contain more violence than others, and different genres have different effects on people's worldview (Potter 1993; Cohen and Weimann 2000). Critics of cultivation research point out that the correlations may be spurious, while adherents of the paradigm emphasize that no strong mediating variables have been found and that the results are quite stable over different research conditions (Morgan and Shanahan 1997). Most cultivation studies are based on surveys. A survey can prove correlation, but not causation. It is theoretically impossible to tell on the basis of a correlation between TV viewing habits and attitudes whether viewing habits influence attitudes, or attitudes influence viewing habits, or whether some unidentified extraneous variable influence both. In fact, one study, which observed an association between the viewing of crime drama and authoritarian aggression, found both directions of causality to be equally plausible (Reith 1999). The position of cultivation theorists towards the question of causality is sometimes quite inconsistent. Leading theorists state that causal models are impossible, or even irrelevant (Shanahan and Morgan 1999). Yet the same theorists discuss causal models all the time. In fact, the whole paradigm rests on the assumption that cultivation is a long-term cumulative effect, and this assumption makes no sense unless a direction of causality is assumed.

An irrefutable proof for the direction of causality is only possible with experimental manipulation of TV viewing patterns. Unfortunately, most cultivation researchers discount such experimental studies because experiments focus on particularistic short-term effects, while the cultivation research project emphasizes
the long-term combined effect of the viewing of all TV genres (Hawkins and Pingree 1990; Shanahan and Morgan 1999). A few experimental studies have found significant effects of relatively short-term exposure on the attitudes of TV viewers (Capella and Jamieson 1997), but most experimental studies are concerned with measuring behavior (especially violent behavior) rather than attitudes.

A strong indication of the direction of causality has recently been obtained, however, from an improved understanding of the cognitive mechanisms underlying the cultivation effect. These mechanisms, which have been confirmed experimentally, cannot easily be accounted for if the causality is spurious or reversed. When asked to estimate, for example, the incidence of violence in society, people tend to economize their mental processing effort and give a heuristic answer based on the ease with which instances of violence can be recalled. A number of testable predictions can be made from this model, and these predictions have been confirmed experimentally. Experimental conditions that induce a more systematic information processing can make test persons discount TV as a reliable source of information and give more accurate answers (Shrum 2001, 2002). Likewise, it is known from cognitive psychology and endocrinology that concrete and emotional accounts make a stronger impression than abstract descriptions. In accordance with this theory, it has been found by experiments that people judge the incidence of particular phenomena by the number of examples in the media rather than by statistical accounts when both examples and statistics are presented in the media. Likewise, examples that evoke emotions or are presented in an emotional fashion make a stronger and more lasting impression than non-emotional presentations (Zillmann 2002).

6.6 Media effects for new issues

Many studies have found that the media have little power to change people’s opinions, but more power to reinforce existing views (Petty et al. 2002). This leads to the important question: How are the views formed in the first place? One may hypothesize that the media have a strong effect the first time a new issue is discussed. In fact, several studies have found that media effects are stronger for issues that people are unfamiliar with (McCombs and Reynolds 2002; Zaller 1992).

6.7 Secondary effects

Communication studies have traditionally been divided between the study of mass media and the study of interpersonal communication. Recently, it has been argued that this is a false dichotomy because the mass media may inspire
interpersonal communication. Rogers (2002) attributes the findings of many studies that mass media effects are small to the fact that they do not include the secondary effect of interpersonal communication.

In fact, the two-step flow model of communication has been known for many years: The mass media influence some people who, in turn, influence other people (Lowery and DeFleur 1995; Bandura 2002). A few recent studies have found very strong media effects in cases where the media have prompted people to discuss an issue with their families and friends (Rogers 2002).

The influence of the media is not unidirectional. Among the people influenced by the media are the elites and opinion leaders whose opinions appear in the mass media (Zaller 1992). This circular flow of communication may obviously amplify certain opinions. Another self-amplifying process is the "spiral of silence". Noelle-Neumann (1974, 1984) discovered that people might be reluctant to voice unpopular opinions for fear of social isolation. This effect may cause the amplification of mainstream opinions or opinions that are perceived as growing in popularity, while minority opinions are suppressed. Such a mechanism may explain fashions and fads. Several studies have measured the "spiral of silence" effect by asking people whether they would voice their opinion in a hypothetical situation. These studies have found a quite weak, though significant, effect (Glynn et al. 1997). One field study, which placed unsuspecting people in a situation where they were actually asked to present their opinion, found a stronger effect. Members of a minority were less willing to express their opinion towards members of a majority than vice versa (Jeffres et al. 1999).

These secondary effects, some stronger than others, all point in the same direction: The effect of the mass media is stronger when secondary effects are taken into account than when the direct effect of media messages on each individual are measured.

7 Sociology

In the sociological theory of Jürgen Habermas (1989, 1996), the mass media are seen as controlled by political and economic forces, which have an interest in manipulating the audience. This compromises the legitimacy of the communicative power exercised by the mass media. The political manipulation is a kind of opinion making and PR, where the media not only transmit debates, but also create and shape them. The commercial manipulation uses the carefully designed and tested psychological methods of advertising. The media explore themes and identification
possibilities that appeal to the unconscious dispositions of the audience in order to attract attention. Habermas mentions the following themes as attracting common interest: romance, religion, money, children, health, and animals (1989).

The German political scientist Peter Klier criticizes Habermas’ manipulation hypothesis because absolute objectivity does not exist (Klier 1990). Klier thinks that the amount of information in modern society is so huge that media as well as citizens and politicians have to make a very strict selection. Members of the public can neither grasp the many topics, nor penetrate sufficiently deep into a particular topic to fulfill the role that they are supposed to, according to the norms of democracy. Klier thinks that this selection is such a big problem that no manipulation hypothesis is needed for concluding that democracy has a legitimacy problem. He stresses that people's reality image is more determined by the media-reality the more they are dependent on selective media and the less their chances are of getting corrective information from primary sources. Klier advocates this obvious observation as a counter thesis to the manipulation hypothesis (Klier 1990: 54). But this so-called counter thesis confirms the very fact that the media produce a skewed image of reality. We are only left with the question of whether this distortion deserves to be called manipulation.

Niklas Luhmann, in his social systems theory, sees communication as a fundamental process in any social system. The communication forms a triple selection process (1984):
1. Selection of information at the sender,
2. Selective attention at the receiver,
3. The selecting effect of the received information.

The communication is very much controlled by the media in modern society. Luhmann describes the mass media as a self-referential and self-maintaining (autopoietic), almost autonomous system (Luhmann 2000). Unfortunately, Luhmann does not go very far in his analysis of how this media system is integrated into the bigger social system.

Luhmann finds that the most important selection criteria of the media are the following: surprising news, topicality, conflicts, quantitative data, local relevance, as well as scandals and norm violations in relation to individual actors and moral judgments.

Luhmann is not clear in the question of whether the media distort reality, because he emphasizes that there is no objective measure to evaluate the media reports against. He tries to evade the problem by saying that the media are accused of manipulating, rather than just saying that they manipulate. We also have to accept
that the media fit reality into certain frames of reference, because there is no other option (Luhmann 2000).

However, this relativist line of thought does not deter Luhmann from giving specific examples of how the media influence society by their selectivity. He mentions the Gulf war, AIDS, and immigrant crimes as examples. He even recognizes that the media may provide falsehoods if the need for news and sensations overweigh the risk that the deception be revealed (Luhmann 2000).

Unfortunately, Luhmann only mentions the role of the mass media superficially in his book on risk sociology. Here the selectivity of the media is only mentioned in a footnote, and he is ambivalent to claims of distortions, although he recognizes exaggerations as well as understatements (Luhmann 1991).

8 Risk sociology

Risk is a subset of danger, and a topic that has given rise to at least three different research traditions: risk sociology, risk analysis, and risk communication. Because of the prominence of the topics of risk and danger in the mass media, and because of the important political implications of the intense focus and possible exaggeration of certain dangers, we may find it worthwhile to look more into these areas of study.

If we want to study the possibly exaggerated fears generated by the media, it seems obvious to turn to the risk sociology that is based on Ulrich Beck's book *Risk Society* (1992) and Mary Douglas' *Purity and Danger* (1966). Unfortunately, Beck does not pay much attention to exaggerations of risks. His project is, on the contrary, to investigate understatements of risks. Admittedly, this can be quite relevant in the context he is working in, since certain environmental risks have been underrated and hushed up for many years. Beck deprecates the importance of statistical calculations of risks because risks are always evaluated in relation to political and moral norms. Beck does, nevertheless, give an example where he considers a risk-claim to be exaggerated, namely the Brent Spar-conflict. But here he blames Greenpeace, not the media, for the exaggeration (Beck 2000).

As a parallel to framing theory, there is much importance attached to the influence of semantics and symbols in risk sociology. People are not good at evaluating risks and making rational choices based on small probabilities. The choice of which risks to accept and which to combat is a social process depending on the social organization. The perception of a risk is malleable, as a result of negotiations and struggles between different experts, authorities and action groups who are
providing competing views and definitions of technological risks. In these struggles, the concepts of risks are often used to legitimize or challenge hierarchies of power (Summerton and Berner 2003). However, risk sociologists pay surprisingly little attention to the role of the media in selecting who is given the opportunity to speak and thus to gain power and influence by promoting a particular definition of a particular risk.

Mary Douglas tells us that what we fear most are the things that disturb our sense of the order of nature (1966). Her studies are based on tribal societies where modern mass media are nonexistent. Subsequently, she has tried to apply the same theories to modern societies, together with Aaron Wildavsky (Douglas and Wildavsky 1982). The analysis of the environment protection movement performed by these two anthropologists has been interpreted as a claim that these organizations create fictive risks in order to consolidate their internal organization (Kaprow 1985; Johnson 1987). In a reply to this criticism, Douglas vehemently rejects this interpretation, and she even goes as far as to completely deny that humans are liable to construct fictive risks (Douglas 1992). She reveals a great insight in the political significance of who gets the blame for mishaps, but accidents are always real to Douglas. She is ambiguous on the question of whether a person can gain advantage by exaggerating or constructing dangers.

Based on risk sociology, Maarten Hajer (1995) has submitted the environmental debate to a discourse analysis à la Foucault. According to this theory, the discursive order is defined by story lines (paradigms), which provide the frame of reference and define the moral order of the debate. The story lines determine which objects are communicable in a given culture. Hence, social actors can exercise power if they succeed in defining the story lines.

The mass media are only mentioned cursorily, even in Hajer's discourse analyses. Apparently, he only sees the media as a passive service organ for the communication of social actors, while the role of journalists as social actors is only mentioned in a parenthesis (Hajer 1995: 66).

9 Sociology of deviance

Risk sociologists may have ignored the significance of the mass media, but this is not the case for the sociology of deviance and the closely related sociology of social issues. The objects of study of these disciplines overlap quite a lot with the aforementioned risk sociology. It is therefore very odd that these branches of
sociology apparently have developed largely independently of each other with very little mutual inspiration (see, though, Critcher 2003).

The sociology of deviance is a study of how society defines certain persons, phenomena or behaviors as deviant and dangerous. The dangerous is thus a social construct. Society can control unwanted behaviors by defining them as sinful or sick. Whoever has success in setting the norms for what is considered deviant and dangerous and promoting their particular interpretation of the deviance has thus gained a key position in the social power apparatus (Foucault 1980; Ben-Yehuda 1990).

Sometimes, a social deviance is considered so dangerous that it must be combatted with the most draconian means. Such a manifestation of exaggerated fear is called a witch-hunt or moral panic. These persecutions have been compared with magic rituals in accordance with Mary Douglas' theory (Bergesen 1978).

In modern society, there is a fierce competition for defining what is dangerous to society. Numerous organizations and lobbying groups compete for setting the agenda for the discussion of social problems in order to gain influence and get more resources for their particular cause. This has very aptly been called the social problems marketplace (Best 1990; Loseke 2003).

Throughout the times, various professions like priests, lawyers, psychologists, psychiatrists, neurologists, etc. have had monopoly on making statements about certain dangerous deviancies. Thereby they gain power and influence through what has been called issue ownership (Jenkins 1992).

Many sociologists have described how certain social problems get inflated to hysterical proportions because of the way they are exposed in the media (Glassner 1999). Media-created fears have made people change their lifestyles, have changed the nature of social policies and undermined the process of justice (Altheide 1991, 1995, 2002; Altheide and Michalowski 1999).

The discussion of whether news media exaggerate or downplay a certain social problem gives rise to a fundamental epistemological problem: Do we have a sufficiently objective yardstick to compare with? This is a general problem that bothers scientists of many kinds. A strict constructionist would not allow any evaluation of any claims, no matter how outrageous they may be. This is not the place to review the extensive constructionism debate. Suffice it to mention that the most viable approach seems to be contextual constructionism (Loseke 2003). This allows us to use statistics and other relatively more objective measures as reference when evaluating media claims. Whatever method we use for evaluating dangers, we have to accept a certain inaccuracy and admit that there are disagreements on which
measures to use. This inaccuracy means that we can only detect big distortions in
the media, not small distortions. Not seldom, however, the exaggerations or
downplayings in the media are so gross that they will be obvious to everybody.

10 Risk analysis

Risk analysis is a research tradition based on statistics, psychology and
sociology. Risk analysts have found that experts evaluate risks on the basis of
statistical criteria, while lay people tend to base their evaluation on political and moral
criteria and on how individual risks affect people.

The characteristics of different risks have been divided into two main factors
according to the so-called psychometric model: Factor 1 comprises risks that are
unknown to the persons affected, unknown to science, new, involuntary, and with
slow effect. Factor 2 characterizes risks that have fatal, dreaded and catastrophic
consequences as well as consequences for future generations. It has been found
that people’s fear and their demand for risk-reducing intervention is influenced much
more by factor 2 than by factor 1 (Slovic et al. 1985; Marris et al. 1998). Slovic (1999)
finds that people’s emotional response is primary to their attitude towards risks, and
that their evaluation of advantages and disadvantages of risky activities is secondary
and at least partially determined thereby.

It is also important to what degree people have trust in the organizations or
authorities that are supposed to control risks. It is noteworthy, that trust is easier to
break down than to build up. Sources of bad news are regarded as more trustworthy
than sources of reassurance. A single investigation finding that a certain activity is
risky has more impact than a large number of investigations finding no risk (Slovic
1999).

Risk analysts have set up a model of how the social effects of a risk are
amplified or attenuated when channeled through the different units of society. The
direct effect of the risk factor in terms of damage or exposure to danger has influence
on people’s risk perception directly as well as through the mass media. The risk
perception so formed gives rise to individual as well as collective reactions, which
may have a range of cultural and socioeconomic consequences. These
consequences often feed back on the risk factor with the effect that it is either
decreased or increased (Renn et al. 1992).
11 Risk communication

People tend to evaluate the probability associated with a risk on the basis of the amount of information they receive about the risk factor. The perception of a risk is thus shaped by the amount of media coverage and the vividness of this information (Wählberg and Sjöberg 2000; see also Berger 2002). The media coverage is determined by factors such as causality, responsibility and blame, according to agenda setting research (Scheberle 1994). Framing also has a strong effect. For example, people’s attitude towards a risk or danger depends on whether it has been described in strictly scientific and statistical terms, or the media have focused on uncertainty, economy, health, environment, who is affected, justice, equality, etc. (Vaughan and Seifert 1992).

Scholars of risk communication tell us that it is important how the responsible authorities inform the population about risks. The population should be kept informed about the newest knowledge about technological risks and the efforts to reduce these risks in order to build up trust. It is necessary to bridge the gap between technical descriptions and people’s personal perception of security.

An information vacuum is created if the responsible organizations ignore or deny a risk. The population, the media, and grassroots organizations will seek to fill this vacuum with information from other sources. The lack of trust that arises leads to an amplification of the conflict with increased media coverage and excessive fear as a result. This may often force the authorities to implement quite drastic measures against the risk that they originally tried to downplay.

The handling of the mad cow disease by the British government is a good example of how a problem that the authorities originally denied developed into a major moral panic which in the end forced the society to spend enormous sums of money on fighting the problem (Powell and Leiss 1997).

In conclusion, the study of risk communication provides part of the explanation of what makes the population and the media overreact to certain risks.

12 Evolutionary theories

Cultural selection theory is a theory that explains social change based on selection events. Humans may make conscious decisions based on intelligent planning as well as unconscious or irrational decisions. All decisions count as selection events. Selection events can also be caused by external influences, the environment, or be necessitated by the logic of the social structure. The systematic
study of selection mechanisms shows that the combined effect of many small selection events can bring about macroscopic changes in the social structure. These social changes are sometimes planned and beneficial, but they may as well be unplanned, unexpected and undesired. An important advantage of cultural selection theory over other models of social change is that it better explains undesired developments (Fog 1999; Blute 1979).

When applying this theory to the mass media, we already know that news and stories are selected by the media, and the selection criteria have already been discussed. But there is also a selection going on at a higher level, namely the economic competition between mass media. The relentless economic competition forces the media to concentrate on those topics that immediately catch our attention and make us buy today’s newspaper or stay tuned on the TV channel through the commercial breaks. Serious quality media that do not mesmerize their audience with psychological means get fewer customers and thus less revenue from advertisements. The reduced income forces them to cut down on journalistic staff whereby the quality is reduced and more readers or viewers fall away. This vicious circle continues until the medium goes bankrupt or changes its policy (Doyle 2002).

The discipline of evolutionary economics applies selection theory to socioeconomic systems (Saviotti 2003). The economic selection that results from competition between news media is taking place at a higher level than the selection decisions of journalists and other gatekeepers. The economic selection is therefore able to override the selection at the lower level by forcing those media organizations out of business that do not let economic considerations determine their selection and shaping of stories. This means that the media can, and do, develop in directions that no journalist or editor wishes. Many journalists are frustrated by the increasing tabloidization of their media and try to improve the standards, but to no avail.

13 Pushing the right buttons

We now know that those media that survive on the conditions of a free market economy are the ones that are best at catching people’s attention. But what are the criteria for a story that catches our attention? The study of what catches our attention most, reveals that our primitive reactions actually play an important role. Some of the most important survival factors for primeval man were food, danger, sex, and children. It is deeply ingrained in every human being that these topics catch our attention wherever we meet them. For example, it has always been of vital importance to collect knowledge about everything that is dangerous. Therefore, we
listen attentively when the TV tells about disasters, and we always buy the newspaper when the front page tells about dangerous criminals (Brodie 1996).

Such attention-catching topics are metaphorically called *buttons*. A story that sells well is said to push our most sensitive buttons. There are many other buttons, but the four mentioned above are the most important ones. The branch of cultural selection theory called *memetics* studies how certain ideas and stories are propagated preferentially in a culture. Scholars of memetics have found that the stories that push the right buttons are much more contagious than other stories (Brodie 1996).

This discovery is very much in agreement with the abovementioned findings of various scholars of what the preferred topics in trivialized media are. Brodie's list of sensitive buttons has marked similarities with Habermas' list of attention-catching subjects and some similarities with Luhmann's observations as well. Brodie's theory is based on evolutionary psychology (Shoemaker 1996; Zillmann 2002) - a discipline that was unknown when Habermas wrote down his observations.

These buttons are found everywhere in the media and entertainment industry. A plethora of politicians, interest groups, charity organizations, religious groups, PR agents and advertisers are incessantly competing for our attention. Those who can hold their own in this fierce competition are the ones who can push the right buttons - which is not necessarily the ones who have the most important messages to tell.

The psychological appeal in the media lies not only in the choice of topics but also in the way they are framed. A message is more appealing when it is focused on a real person that people can identify with. Therefore, the media prefer to give a story a personal angle rather than discussing abstract principles. Thus, political debates are often presented as personal conflicts between politicians rather than as discussions about ideologies. The personality, private life, and media appeal of a politician thus becomes more important than his ideological stance (Fog 1999; Sennett 1974).

14 Regality theory

Some studies have indicated that the viewing of fear-provoking television programs cultivates authoritarianism (Shanahan 1998; Altheide and Michalowski 1999). The concept of authoritarianism (Adorno et al. 1950) has been widely used and studied in social psychology for half a century. Unfortunately, this concept is strongly criticized for being vaguely defined and politically biased (Eckhardt 1991). Therefore, *regality theory* (Fog 1999) is preferred here as an alternative to the theory
of authoritarianism. With an evolutionary basis, regality theory avoids the political bias that lies implicitly in authoritarianism theory. The regality scale, which may be seen as a replacement for the authoritarianism scale, is applicable not only to individuals, but also to entire cultures and cultural products. A culture and its population will, according to this theory, adapt to the environment in which the society finds itself and, more specifically, to the need for defense against factors that threaten the nation or social group. The perception of a bellicose neighbor state as a security threat will give rise to a kind of psychological armament in the citizens who see their nation or tribe as threatened. The solidarity and feeling of group identity will be strengthened (Hogg and Abrams 1988). It has been discovered that these social psychological reactions give rise to a whole series of emergent cultural phenomena. The political structure will be more hierarchical because people feel the need for a strong leader. The ideology will go in the direction of saying that individuals exist for the sake of the society, rather than vice versa. Religious life will be stricter. Discipline will be harsh and the tolerance for deviants will go down. Sexual morals will also be stricter, and the birthrate will go up. Interestingly, it has been found that these cultural changes are also reflected in the artistic production. Architecture, pictorial art, fiction, and even music becomes more formalistic, embellished and perfectionist so as to achieve a cognitive congruence between the art and the social system where political and religious leaders have a grandiose and majestic status.

A culture that exhibits these characteristics is called *regal*. The opposite tendencies are called *kalyptic* (or *kungic*). A kalyptic culture is typified by peacefulness, tolerance and individualism. You may imagine a continuous regality scale going from the extremely regal to the extremely kalyptic, where most cultures and their individual members fluctuate somewhere around the middle of this scale. Any danger that is perceived as threatening to the social order and to the nation as a whole can have a regal influence. This effect has been exploited by despots throughout history who have created witch-hunts and fictitious enemies in order to boost social solidarity and thereby consolidate their dwindling power. The regal development not only makes a social group better armed to resist violent attacks, but also more likely to *initiate* a violent conflict. A culture will drift in the kalyptic direction in the absence of any serious threats to the nation and to the social order. People will not accept a tyrannical rule when nothing legitimizes the call for a strong leadership and nothing justifies the requirement that people make great sacrifices for the sake of their nation (Fog 1999).

Applying regality theory to our analysis of the mass media, we find that excessive fear mongering can have far-reaching consequences if it makes people
see their society as constantly endangered. As mentioned above in the discussion of framing effects, the intense focus on crime reporting and the personalized framing of these reports gives the audience the impression that crimes are caused by moral defects in individuals or by an ineffective penal system. The consequence is that ever more resources are spent on ineffective punitive measures and less on the more effective preventive measures (Ericson et al. 1991; Altheide and Michalowski 1999).

These political consequences of the intense media focus on crime and danger are in agreement with the predictions of regality theory. However, the predictions of regality theory are more far-reaching than the predictions of framing theory. The more the media cultivate the fear of crimes and other dangers that threaten the social order, the more the culture develops in the regal direction. This is likely to influence not only crime policy, but is likely to lead to lower tolerance towards all kinds of minorities, more xenophobia, and a tougher foreign policy (Fog 1999; Shanahan 1998; Shanahan and Morgan 1999; Altheide 1991, 2002; Altheide and Michalowski 1999; Iyengar 1998).

15 The interdisciplinary synthesis

Now that we have analyzed several paradigms for what they have to say about the mass media, it is time to assemble the jigsaw puzzle into a coherent model.

Economic theory can clarify the effect of unrestrained competition on the media market. While the immediate expectation of economists is that free competition leads to optimization, a more thorough analysis shows that this belief does not hold for the media market. A mild degree of competition may in some cases lead to improved quality and diversity, but excessive competition between commercial media has been found theoretically as well as empirically to lead to wasteful duplication of the most popular entertainment genres rather than to a diversity of genres. Economists are reluctant to use any other measure of quality than diversity of genres, but this is indeed a poor measure of quality. One model even suggests a negative relationship between diversity and quality; and as the cultivation studies show, a diversity of genres does not guarantee a diversity of messages. The commercial media tend to avoid controversial issues. The distinctions between advertisements, news and entertainment are becoming more and more blurred. Audience groups with less spending money are not considered. The result of excessive competition, one may conclude, is a choice of very similar
sensationalist and entertaining programs with low production costs and low informational value. This benefits neither consumers nor advertisers.

Journalists and editors often deplore this development and try to improve the quality of their media by advocating principles of journalistic standards and media ethics. These efforts have little effect, however, because the effects of the economic market forces are able to override the lower level effects of journalistic selection.

Media studies clearly show the consequences of strong competition between the mass media. The media are trying to generate a sense of personal proximity. Political disagreements are presented as a clash between personalities rather than between ideological principles. The stories often appeal to the emotions rather than to the intellect. Advertisers prefer soft entertainment and shun controversy. Relaxing entertainment may not suffice for attracting the attention of viewers or readers, however. In order to survive in the competition for attention, the media often turn to emotional and attention-catching subjects involving crime, fear, danger, and of course sex and gossip. There is a remarkable consistency among different scientific disciplines in the finding that certain topics like these are used repeatedly in the media for catching attention.

The fact that topics relating to fear and danger have such a prominent place in the media demands special attention. The discipline of risk analysis tells us that people's evaluation of risks and dangers is determined by emotional factors rather than by statistical probabilities. Certain risks have a greater emotional impact than others, and studies of risk communication adds the finding that it makes a big difference whether information about a certain risk is communicated in a way that makes people feel that the authorities are in control of the situation or not. These findings all add up to an understanding of the sociological discovery that people often fear the wrong things and take drastic precautions against the most unlikely dangers while ignoring other much more serious risks. These effects are of course mirrored and amplified by the media.

The sociology of deviance has discovered that certain professionals and organizations can gain power by defining a danger, making people afraid of it, and at the same time claiming their expertise in fighting this danger. This position is so attractive that numerous interest groups are competing fiercely for gaining recognition for their particular social problem, including their particular definition of it, and having this issue placed high on the media agenda. The media sometimes find it quite profitable to cooperate with such an interest group and run a highly emotional and attention-catching campaign about a particular social problem. Exaggerations
are the norm rather than the exception here, and the situation may soon develop into a moral panic or witch-hunt (Ericson et al. 1989).

Now that we have identified some of the most important factors that influence the form and contents of the mass media, it is time to analyze how these media affect the viewers, listeners, and readers. The fact that the most attention-catching topics have such a prominent place in the media will inevitably have a strong effect according to the theories of agenda setting, priming, and cultivation.

The strong focus on topics involving fear and danger in the media agenda will also place these topics high on the political agenda. A politician wanting re-election cannot ignore a sensationalist media campaign or moral panic. Even in the rare case where a politician can resist the emotional appeal of the media and see the hard facts behind the stories, he or she still has to "do something" to satisfy the public opinion. The consequence is that laws about problems with high media appeal may be changed frequently without rational analysis.

Another topic, which is often used for catching attention, is, obviously, sex. Stories about sex may be either positive ("sex is good") or negative ("sex is bad and dangerous"). Both types of stories are equally good for catching attention. The high prominence of sex on the agenda may thus influence the sexual morals of the society in either the liberal or the restrictive direction, depending on which kind of stories fit best into the agenda of the time (Fog 1999).

Economic considerations influence not only the subject matter of media stories, but also the form. Commercial media prefer to present issues in a personalized way. Ideological disagreements are presented as conflicts between persons. Likewise, social problems are explained by presenting examples of persons who are afflicted by these problems. Such stories appeal more to the emotions than to the intellect. Complicated explanations are avoided. Stories that cannot be presented in this personalized frame are often simply not told. The consequence of this form of presentation can be predicted from the theory of framing. The framing of a story determines the causal understanding and attribution of blame for a particular problem. Social problems are most likely blamed on individual persons when framed in a personalized manner. Since the deeper structural causes of the problems are seldom explained, the likely political consequence is scapegoating, but not solution of the problems.

The incessant media focus on fear, danger, crime and disaster make people perceive the world as a gloomy and dangerous place. The psychological reaction to this perception may be predicted from regality theory. If the entire nation, and not only individuals, are perceived as endangered, then this "mean world syndrome" will
foster the kind of social climate that is commonly known as authoritarian. The culture will become more punitive, intolerant, hierarchical and bellicose. Interestingly, framing theory leads to some of the same predictions, but based on a different mechanism. These two mechanisms are not mutually exclusive, but more likely to supplement each other.

Cross-cultural comparisons show that the structure of the mass media may have a strong effect on political developments (Gunther and Mughan 2000). The model outlined in figure 1 is an attempt to explain such effects by integrating contributions from the different scientific disciplines discussed here.

**Fig. 1.** Integrated model showing the role of the mass media in a democratic society.
The thick, gray arrows indicate meta-factors that determine the weight of other factors (see text).

The mass media are influenced by many factors: Media owners define the overall editorial policy of a medium. Economic factors determine the amount of journalistic investigation and cultural production that can be afforded. A highly competitive market with wasteful duplication of the most popular genres leaves few
economic resources to spend on heightening the quality of each program. Economic considerations may force the media to deploy an attention-catching strategy by emphasizing entertainment, emotional and personalized stories, sex, violence, gossip, etc. Economy determines the influence of advertisers and sponsors on the types of programs and stories that are being published. Sponsors also have an influence through sponsored cultural events that may not take place unless they are profitable to the sponsors. The news are obtained from sources such as politicians, opinion leaders, experts, professionals, police, organizations, and ordinary people who happen to be involved in a newsworthy situation. These sources can influence the media, not only through the stories they tell, but also by rewarding or punishing certain media by providing or withholding desired information (Ericson et al. 1989). The editors and journalists who produce stories obviously have an influence through their personal engagement as well as their professional, ideological and ethical principles. Technology determines how many media channels we can have and which formats are possible and attractive. Government regulation may impose additional ethical principles such as fairness requirements and public service obligations.

All these factors influence the form and contents of the media products. However, the most important implication of the integrated model is that the degree of economic competition between the mass media is a meta-factor, which determines the weight of the other factors. A strongly competitive market situation may force the media producers to give more weight to considerations of attention catching and to the wishes of the advertisers and less weight to ideology and ethics. Ideals of fairness, relevance, and thorough investigative journalism have little influence when fierce economic competition drains the media organizations of resources and forces them to compete on attention-catching stories and entertainment. Quality media that refuse to compete on these premises may simply perish unless they can rely on non-commercial sources of funding.

The media are conveying and influencing the public opinion, which in turn determines the democratic elections. The influence of the media works not only through voters’ opinions. Everybody in society is influenced by the media, including politicians, opinion leaders, journalists, editors, and whoever may have the role of news sources. Furthermore, the media are influencing the criteria by which voters evaluate political candidates by means of agenda setting, priming and framing.

It is easy to see that this model has many feedback loops that provide ample opportunities for self-amplifying processes. These feedbacks are likely to make the
effects stronger, reinforce existing tendencies, hide deficiencies, and make the system resistant to political intervention.

The impact of recent technological innovations on the media market has often been discussed. Some commentators have claimed that pay-per-view technologies can correct the market failures inherent in advertisement-based media (Sawers 1996). But even in the unlikely event that a commercial supplier will offer a pay-per-view news channel free of advertisements, sponsoring and product placement, there will still be an economic influence from the owner, and the picture of figure 1 will not be changed much. Tabloid newspapers sold from newsstands are known to produce more attention-catching headlines than subscription-based broadsheet newspapers, because they need to attract impulse buyers every day. A pay-per-view based supplier of TV or internet news will be likely to use a similar strategy. The increase in the number of channels and distribution methods will only increase the competition for attention further.

The Internet has made dissemination of information so cheap that non-commercial suppliers of information can afford to make their services available worldwide. This does not reduce the costs of investigative journalism - neither does it reduce the competition for attention - but at least it opens up more possibilities for a news-supply that is less influenced by economic interests.

16 Conclusion

We have assembled the jigsaw puzzle of pieces from many different scientific disciplines into a model that shows how economic market forces shape the news media, which in turn shape public opinion and the political climate. This is of course an ambitious endeavor with many pitfalls. Any model of cause-and-effect for something as complicated as a social system must be carefully scrutinized. For this reason, I have supplied a discussion of possible weaknesses of the model in an appendix to this article. A test of the model based on statistical data, also provided in the appendix, indicates that the effect of media competition on the political climate can be fairly strong and cumulative over time. One may conclude from the discussions in the appendix that the integrated model presented here has stronger empirical support than many other social science models.

We will now apply the model to the question, posed in the introduction, of how the media perform in relation to the democratic functioning of our society. The model certainly confirms many of the claims of media critics. Commercial mass media under strong competition are unlikely to maintain independence of irrelevant influences,
prioritize the most relevant issues, or to provide deep insight into complex problems. But media critics are not right in blaming the poor media performance on the concentration of media ownership. On the contrary, the model predicts that the media will perform better when competition is mild than when it is fierce. A better performance can be expected in the situation where a few media companies run many channels each, than when many companies operate few channels each.

The adverse effects of the free market forces have been ignored or underestimated by many media scholars. While concentration of ownership and insufficient competition is readily deplored in theoretical discussions of media performance, the consequences of excessive competition are barely recognized as a problem for media quality and press freedom (e.g. McQuail 1993, 2003).

Politicians and their economic advisors have often assumed that the quality and diversity of media products is best assured by means of competition. This is the philosophy behind the economic liberalism that has characterized US media policy for many years and is now also dominating European media policy to an increasing degree (Venturelli 1998; Noam 1991; Skogerbo 1996). The complete failure of this policy to achieve its stated goals is readily explained by the present analysis.

According to the model in figure 1, the only efficient way to improve media quality is to reduce the economic competition. In fact, the goal of democratic performance cannot be achieved when unrestrained market forces control the media. The only way to assure a truly independent democratic communication system is by implementing non-commercial mass media. Historical evidence from Europe and elsewhere shows that state-financed non-commercial media can perform reasonably well, as long as the competition from commercial media is not too strong, and as long as the government can resist the temptation of controlling the media.

Cognitive theories of media effects tell us that people need appropriate cognitive schemata in order to efficiently digest the information they receive from the media. Those who know a lot about a subject also have a rich source of cognitive schemata so that their knowledge easily gets still richer, while those who know little will be unlikely to gain much knowledge from the media and will also have little motivation to try (Graber 1988; Norris 2000). Commercial mass media may keep poorly educated people in the state of low knowledge by providing only entertainment and simple stories. The democratic ideals can only be satisfied when all voters are educated and informed to the point where they are able to understand the most important political issues. Clearly, commercial mass media cannot fulfill this role properly. Many commentators have claimed that the media are simply giving people what they want, and they want entertainment. But this idea misses the point that the
media are in fact forming people's preferences. There is plenty of evidence that people can be taught to appreciate serious news (Gunther and Mughan 2000: 440).

The cultural and political consequences of media deregulation are many. We are seeing an increasing number of populist politicians who talk about simple causes and implement simple cures in a complete disregard for scientific experts who know better (Mazzoleni et al. 2003). This policy feeds back into the system with a demand for more deregulation of the media.

A system where a large number of special interest organizations must compete for media attention in order to get political and economic support for their cause is not an optimal system. Not seldom, political activists stage illegal and violent happenings if this is the only way they can get media attention. Those interest groups that can present the most attention-catching examples and media stunts in this anarchic struggle for attention may not be the ones who have the most important messages to tell. When politicians respond to these emotional media stunts, we have a system where the prioritization of resources is determined by media appeal rather than by rational criteria. This compromises all political and economic prioritizations in areas as diverse as medical care, traffic safety, environment protection, and development aid.

The use of fear and danger as attention-catching devices often has the side effect that people fear the wrong things. Drastic measures are taken to combat statistically negligible dangers while other much more likely dangers are largely ignored. The media-created fears sometimes develop into moral panics and witch-hunts with the result that principles of human rights, civil liberties, and fair trial are eroded.

The society may increase the focus on social problems under these conditions, but the abilities of the system to solve these problems are diminished. By the personalized framing of problems and the focus on simple proximate causes, the deeper structural causes of social problems are not exposed and efficient solutions are not found. This applies not only to the country’s internal problems but also to its foreign affairs. By blaming international political conflicts on evil despotic leaders rather than on the social mechanisms that brought these leaders to power, the system may in fact promote a foreign policy that inadvertently contributes to the very fears and hardships that made the citizens of the enemy country support a strong and authoritarian leader in the first place. The inevitable result is that the conflict is escalated.
References


www.irex.org/pubs/media/PubTvAd_gilletteAll.pdf


*Human Communication Research* 27: 94-120.


**Appendix**

*Divergent opinions*

The claims of media critics do not stand unchallenged. One investigation (Powers et al. 1994) concludes that program quality has been improved by the introduction of competition in the Danish TV market. Unfortunately, this conclusion is not validated by the data because the authors have failed to study program quality before the monopoly was broken. A later study that does so finds strong support for the opposite conclusion (Hjarvard 1999). The quality measures applied are also questionable. By applying the criteria of Grabe, Zhou and Barnett (2001) to the data provided by Powers and coworkers, it is revealed that there is more sensationalism in commercial TV than in noncommercial TV.

The most sophisticated counter-criticism is voiced by Pippa Norris (2000) who disagrees that the mass media have fostered a cynical attitude towards politicians. While Capella and Jamieson (1997) find signs of decreasing political participation, Norris finds this to be a short-term fluctuation, not a long-term trend. A positive connection between media consumption and political involvement is her argument against the claim that the media foster political apathy, though one may question the direction of causality behind this observation.
Norris agrees that bad news can affect the public on specific issues - for example that excessive crime coverage can increase support for the death penalty - but her surveys do not show negative effects on the general political interest. Norris disagrees with the claim of media critics that the general performance of the commercial mass media is unsatisfactory. However, this disagreement seems to stem more from a difference in normative premises than from a disagreement about objective scientific findings. She disagrees that the selection of news topics by societal relevance is important, and she defends the importance of the kind of topics covered by soft news and infotainment (Norris 2000).

The same phenomenon may have different explanations, depending on the paradigm applied in the analysis. For example, Gaziano and Gaziano (1999) show how the knowledge gap between social classes has several different explanations, depending on the scientific perspective. The reason why I have chosen the cognitive psychology explanation for the knowledge gap here is that this is the theory that has the best explanatory power in relation to the question at hand. Obviously, many of the phenomena described in the present model may be seen from other perspectives, leading to other kinds of insights.

**Strengths and weaknesses of the model**

Causal models of complex systems are difficult to verify. It is therefore necessary to discuss how strong or weak the support is for the causal model described here.

The influence of economic competition on the quality of mass media has been the subject of several empirical studies. There has been some discrepancy among these studies as to whether increased competition causes more or less diversity in the mass media. This discrepancy has been solved, however, by studies showing that mild competition leads to increased diversity, while strong competition leads to decreased diversity. Even though diversity obviously affects competition, the available data cannot be explained from reversed causality alone. Spurious correlations cannot be completely ruled out, but no strong confounding factors have been identified. As there is good agreement between theory and data, the causal link between competition and program diversity may be considered reasonably well established. Unfortunately, diversity is not a good measure of program quality. The connection between economic competition and other aspects of program quality is inferred mainly by the two-step process of establishing first a connection between competition and program costs, and second, a connection between program costs and quality. Both steps are supported by empirical data as well as by theory.
Furthermore, several studies directly confirm the link between economic competition and the quality of news programs. In two of these studies (Hvitfelt 1994; Hjarvard 1999), reverse causality is impossible and spurious correlation very unlikely, as competition was suddenly introduced into the markets under study. The causal connection between competition and media quality is thus quite certain, though not universal. One old study (Nixon and Jones 1956) found no significant connection between newspaper competition and quality in the USA in the period 1939-1955. The most probable explanation is that the newspaper market was more profitable and generally less competitive at that time.

Scientists from several different disciplines have independently discovered that commercial media often use certain attention-catching topics and frames in order to attract more readers or viewers. While different scientists present different lists of attention-catching subjects, there are remarkable similarities between these lists, and a general agreement that topics relating to fear and sex are among the preferred attention-catchers. Similarly, there is a general recognition that a personalized framing is preferred for these stories. Several studies document the high presence of these attention-catchers in commercial media and a few studies even establish a correlation with the degree of competition. Journalists, editors and their advisors readily admit, when interviewed, that economic considerations are the main cause of the attention-catching strategy (McManus 1994; Ericson et al. 1991; Shoemaker and Reese 1996; Hjarvard 1999; Bennett and Entman 2001).

The psychological effects of mass media on their audience have been documented through numerous studies. There has been some discussion on the direction of causality. Most studies of cultivation are survey studies, which can only show correlations, not causality. Experimental studies can show causality, but such studies have been few. While there is some support for the supposition that societal threats influence what people watch on TV (McIntosh et al. 2000), the main body of evidence suggests that excessive TV watching can cause people to be fearful, rather than vice versa.

The reliability of media effects theories has recently been improved by a better theoretical understanding of the underlying cognitive mechanisms and a good agreement between theory and experimental data. These theories leave no doubt about the direction of causality. There are still unclear aspects, however, especially regarding the magnitude of the effects, the long-term effects, and the effects of first exposure to an issue.

Now that we have established that the mass media have psychological effects on their audience, we want to know more specifically what effects we can
expect from the high agenda-setting of topics involving fear and danger and the personalized framing of political issues. Several studies suggest effects in the direction of authoritarianism, intolerance, inefficient crime policy, and bellicosity. Though these effects are plausible, the empirical support is not very sophisticated. More studies of these effects would therefore be desirable.

Two possible mechanisms have been proposed here to explain the link from mediated fear to hard-line policies: (1) the effect of agenda setting on perceived issue importance combined with the effect of framing on attribution of blame, and (2) regality theory. These two mechanisms may be distinguished by the fact that mechanism (1) predicts a specific effect applying only to issues that have been placed high on the media agenda, while mechanism (2) predicts a general effect which has the possibility of influencing policies on issues outside the media agenda as well. While support for both a specific and a general effect can be found in the literature, the available evidence is not sufficient for determining which of the two mechanisms is the strongest. Regality theory is a theory in its infancy, which needs to be more deeply researched.

In conclusion, we can say that the link from economy to media contents is reasonably well established, empirically as well as theoretically. With regard to the link from media contents to social policies, we have established certainty that such a link exists and we know reasonably well what kind of effects to expect, but there is still much uncertainty regarding the magnitude of the effects and their mechanisms.

Having now verified the most important links in the model, we are ready to combine these links into a causal chain. One may argue that it is somewhat unsafe to rely on theoretical logic alone for the validity of integrating known effects into a causal chain. The few studies that consider both the economic influence on the mass media and the subsequent influence of the media on their audience (e.g. Altheide 2002; Iyengar 1998) have no empirical support covering both steps. The final step in the verification of the integrated model is therefore a statistical test of the link between mass media competition and political decisions. Such a test is provided in the following section.

Statistical testing of the integrated model

The hypothesis that commercialization of the mass media is connected with an increase in political populism is in very good agreement with observations from several democratic countries (Mazzoleni et al. 2003). However, a statistical testing of this hypothesis is hardly possible because of the difficulty in quantifying and measuring populism. We need a measurable prediction from the model. Several
Scientists have noted that the emotional and personalized framing of crime news leads to a policy that gives high priority to severe punishment and low priority to crime prevention. There may be disagreements about whether such a policy leads to lower or higher crime rates, but there can be no doubt that it leads to more criminals spending more time in prison, and thus higher incarceration rates. We can therefore predict that a more competitive news market will lead to increasing incarceration rates. This is not the most important prediction of the model, but the one that can be measured most reliably.

Many democratic countries have publicly funded TV stations with public-service obligations. These public TV stations are in competition with purely commercial privately owned stations. If the private stations have a high share of the audience, then we can characterize the market as highly competitive and expect the population to be influenced by the kind of news that characterize a competitive market. We will thus use the audience share of private channels as an (admittedly imperfect) measure of the influence of competitive market forces on the news supply.

We will now explore the statistical connection between the audience share of private TV stations and the incarceration rate in different democratic countries. Unfortunately, the incarceration rates in different countries are very different for historical reasons, and a direct correlation analysis between audience share and incarceration rate gives no clear picture. However, if we assume that the effect is cumulative, as many media effects scholars maintain, then we can expect the relative change in incarceration rate over time to be a better measure of the effect. This cumulative effect is easily explained from cognitive theory: When people call for tougher penalties, they have no sense of whether penalties are already tough, because they are always using status quo as the reference.

A regression analysis of the relative change in incarceration rate versus the audience share of commercial TV stations for 25 countries is shown in figure 2. The increasing trend is quite strong, and statistically significant at the level $p = 0.03$. Given the high possibility of random influences on the data, it may be justified to remove outliers from the analysis. Removing the highest and the lowest points (NL and CH) improves the significance to $p = 0.005$. The extrapolated prediction for a country with only commercial TV is a relative increase in incarceration rate of 4% per year (highly significant). For a country with only public TV, the prediction is a non-significant fall in incarceration rate of 1% per year. (Data sources: Norris 2000; International Centre for Prison Studies 2003; Australian Film Commission 2003; Television New Zealand 1998).
In order to reduce the confounding influence of cultural differences, we may analyse changes in incarceration rate over time within each country rather than differences between countries. The countries in the European Union have all seen an increasing economic liberalization of the news media since the 1980’s (Venturelli 1998, Noam 1991). We can therefore expect to see an increase in the incarceration rates in these countries. An analysis of variance for EU countries of log incarceration rate by year and country over the period 1992 - 2001 shows a highly significant relative increase in the incarceration rates of 2% per year (The increase is slightly lower, but still highly significant, when including the three countries that joined the EU in 1995. Data source: International Centre for Prison Studies 2003).

An indication of the long-term effect can be obtained by studying the situation of the USA. This country has a unique history of an almost exclusively commercial news supply through many years (Owen et al. 1974). If the media effect is cumulative, then we can expect the USA to have a considerably higher incarceration rate than other countries. This prediction holds true indeed. The incarceration rate in the USA is 702 per 100,000 (2002), which is higher than for any other country in the world. Other old democracies have incarceration rates between 38 (Iceland) and 136 (UK) (same data source).

We can conclude that the statistical analyses lend strong support to the integrated model. We must take into account that the data may be inaccurate, and many cultural differences and other confounding factors have not been controlled for.
For example, the public TV stations in different countries have very different economic organizations. Some allow advertisements while other do not (Gillette 2001). The competition from other news media such as newspapers, radio and internet has not been accounted for. Given this level of disturbing influences, the degree of statistical significance obtained is indeed better than we could hope for. If the media effects had been weak, then we would not have seen any statistical significance under these noisy conditions. The correlation between the two variables does not, in itself, indicate the direction of causality, but the strong indication that the effect is cumulative makes it impossible to interpret the data in terms of an exclusively reverse causality. This does not exclude the possibility that some extraneous factor could influence both media policy and crime policy. It is difficult to conceive, however, how such a factor could possibly bring about political changes without the mass media playing a crucial role. As long as no alternative theory explains the data better, we will thus uphold the integrated model presented in the present article.

Postscript

This paper was originally written in May 2004. It needs to be updated with better data and better statistical methods, but the conclusion would probably be the same today.