

Arousing Television News:

Concept, Causes, & Consequences

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Arousing Television News: Concept, Causes, & Consequences

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Chapter 1

Introduction

Introduction

In the spring of 2012, the Dutch public service news broadcaster *NOS* launched a new format for the *NOS Journaal*, traditionally the most viewed news program in the Netherlands. Important changes involved the packaging of the news (e.g., new sets, leaders, graphics, and sounds), but the content was modified too: more human interest, less distant, and with an emphasis on the significance of the news for the viewer instead of a focus on facts (Gelauff, 2012). These modifications were aimed at creating a closer bond between the news and the public, and should improve the public task of the *NOS*, to provide objective and reliable news to all Dutch citizens. The *NOS* wanted in particular to serve a wide audience with the renewed news format: “young and old, high and low educated, and everything in between¹” (Gelauff, 2012).

News critics question whether the renewed *NOS Journaal* is better at reaching a wide audience. They argue, for example, that the changes in the news format may be seen as a call for younger viewers in particular (cf. Geelen, 2012). Moreover, there are concerns regarding the composition of the news. The new format seems to involve popularization and an increasing attention for less important events (cf. Beerekamp, in Willems, 2012). The renewed packaging of the *NOS Journaal* is criticized for being nothing more than bells and whistles that may distract the viewer’s attention: “The *NOS Journaal* is no longer news, but news theater¹” (Geelen, 2012).

Both the changes that appeared in the *NOS Journaal* and the criticisms of these changes are not new. In the last decades, news critics frequently accused the Dutch television news of becoming more and more ‘sensational’ (cf. Bouma, 1996; Fortuyn, 2000). Increasing competition on the Dutch television market seems to have provoked these discussions. The Dutch television news market changed from a market with a single news program at the end of the 1980s to a highly competitive market with various news programs at the beginning of the new millennium (cf. Hendriks Vettehen, Beentjes, Nuijten, & Peeters, 2011). With the entrance of commercial television in the Netherlands in 1989, commercial broadcaster *RTL* became the first competitor for the *NOS Journaal* by broadcasting their own news program: *RTL Nieuws*. In 1995, commercial broadcaster *SBS* introduced *Hart van Nederland*, a news program focusing on local and national news. In subsequent years, the Dutch news market expanded with several news programs, either featuring (inter)national events or only domestic news. Some of these programs have been cancelled (e.g., *SBS* news program *Het Nieuws* and *RTL’s 5 in het Land*), while others still exist (e.g., *RTL’s Editie NL*). In parallel with this increased competition, news critics witnessed changes in formats of both the new and the existing news programs. As indicated, public authorities generally considered these modifications to be negative and undesirable.

¹ English translations: original citations were in Dutch

In several Western countries, similar developments in television news have been observed and were heavily discussed throughout the years. For instance, former British Prime Minister Tony Blair made a stinging attack on news media in a speech delivered a few days before his resignation. Blair (2007) argued that the changing context in which communication takes place in the 21st century has led to a more intense form of competition:

"The result is a media that increasingly and to a dangerous degree is driven by 'impact'. Impact is what matters. It is all that can distinguish, can arise above the clamour, can get noticed. Impact gives competitive edge. Of course the accuracy of a story counts. But it is secondary to impact. It is this necessary devotion to impact that is unravelling standards, driving them down, making the diversity of the media not the strength it should be but an impulsion towards sensation above all else. (Blair, 2007)."

And already in 1992, US journalist Carl Bernstein noticed: "For more than fifteen years we have been moving away from real journalism toward the creation of a sleazoid info-tainment in which lines between Oprah and Phil [. . .], between the *New York Post* and *Newsday*, are too often indistinguishable" (p. 24). He additionally stated: "The lurid and the loopy are more important than real news" (p. 25).

This dissertation is inspired by public discussions regarding today's television news. The common thread running through these discussions is that changes in today's news are the result of an increasing need to attract the attention of the audience. By focusing on what the public wants to see instead of what the public needs to see, important and objective information is being pushed away. In particular, the news is deemed to be market-driven, to serve young viewers instead of a wide audience, and to be sensational. As a consequence, today's television news may violate traditional norms of proper journalism and thus threatens the informative function of the news (cf. Bernstein, 1992; Blair, 2007; Fortuyn, 2000; Gore, 2007; Jones, 2009). The question, however, is whether the criticisms of today's television news are justified. Hence, this dissertation focuses on the causes and consequences of the recent changes in television news.

Definitions, Aims, and Research Questions

The fierce discussion regarding today's television news has inspired various scholars to study the changes in content and packaging of television news. In previous research, different labels were used to refer to the news such as tabloid news (Grabe, Zhou, Lang, & Bolls, 2000), infotainment (Graber, 1994), 'bad' news (Newhagen & Reeves, 1992), and 'hard' versus 'soft' news. Scott and Gobetz (1992) defined the latter as news that is not really news. Another commonly employed label in this context is sensational news (cf. Grabe, Zhou, & Barnett, 2001; Hendriks Vettehen, Nuijten, & Beentjes, 2005; Uribe & Gunter, 2007). A problem with these labels is their negative connotation. Terms like 'sensational', 'bad' or 'soft' news seem to imply that such news is not 'real' news. Because it is disputable

whether or not this negative connotation is justified, we prefer to use a more neutral term to describe recent developments in television news.

In this dissertation, we have chosen to use the label *arousing television news*. In doing so, we follow a number of previous studies on the subject (cf. Grabe & Kamhawi, 2006; Grabe, Lang, & Zhao, 2003; Grabe, Lang, Zhou, & Bolls, 2000; Hendriks Vettehen et al., 2011; Zhou, 2005). In past research on the topic researchers agree that various news characteristics that are increasingly included in today's news could arouse viewers emotionally. Moreover, these characteristics have the capability to elicit attention responses in viewers (cf. Grabe et al., 2001; Hendriks Vettehen et al., 2005; 2011; Uribe & Gunter, 2007). We therefore define arousing television news as news stories including content and packaging characteristics that have the ability to elicit arousal, a state of alertness and physical excitation (Bente & Eschenburg, 2008), and attention responses in viewers. Although the attention-grabbing capacity of these characteristics should not be forgotten, we do not mention this explicitly to promote the compactness of the term. Well-known examples of arousing television news are news stories including both content and packaging characteristics, such as negative story topics and pictures, fast-pacing, and decorative editing techniques.

As previous research included slightly different conceptualizations of arousing news characteristics (cf. Grabe et al. 2001), the first aim of this dissertation is to provide a more elaborate conceptualization of 'arousing television news' by embedding the concept in theories of news processing. To this end, the first research question is:

Research Question 1: *What is arousing television news?*

In public discussions it is assumed that the presence of arousing characteristics in television news stories has increased over time (cf. Bernstein, 1992; Blair, 2007; Gore, 2007). Academic research on this topic supports this assumption (Hendriks Vettehen et al., 2005; 2011; Hjarvard, 2000; Hofstetter & Dozier, 1986; Hvitfelt, 1994; Schaefer & Martinez III, 2009; Slattery, Doremus, & Marcus, 2001; Slattery & Hakanen, 1994). The increasing presence of arousing characteristics in the news is frequently conceived as a response towards the growing competition on the news market. This is a result of the deregulation of the broadcasting system and the entrance of commercial broadcasters on the news market (cf. Hjarvard, 2000; Hvitfelt, 1994; McManus, 1994). Because of this competition, news producers may progressively be urged to capture the audience's attention by adding arousing characteristics to the stories. Previous research provides some support for the role of competitive pressure as explanation for arousing television news (cf. Hendriks Vettehen et al., 2005; 2011; Hjarvard, 2000; Hvitfelt, 1994; Wang, 2012). However, there may be other factors (e.g., technology, journalistic culture) that influence the presence of arousing characteristics in the news (cf. Hallin & Mancini, 2004; Kleemans, Van Cauwenberge, d'Haenens, & Hendriks Vettehen, 2008). The second aim of this dissertation

is therefore to provide more insight into the origins of arousing television news. We pose the following research question:

Research Question 2: *What are the causes of arousing characteristics in television news?*

As the main goal of news is to inform citizens about significant events, the increasing presence of arousing characteristics in the news may imply that news producers consider these characteristics to be helpful in serving a wide audience. However, news critics argue that the inclusion of arousing characteristics only attracts certain parts of the audience and that it is at odds with the informative function of television news (cf. Bernstein, 1992; Blair, 2007; Geelen, 2012). As there is little empirical evidence for this assumption, in this dissertation we want to investigate whether the inclusion of arousing characteristics in television news is a convenient tool to accomplish the news producers' task of (1) attracting the audience, (2) informing them, and (3) to do that in accordance with traditional norms of proper journalism at the same time. The third research question is:

Research Question 3: *What are the consequences of arousing television news for different categories of viewers?*

Dissertation Outline

This dissertation is organized into three parts, each covering one of the above research questions. Enclosed by an introductory and a concluding chapter, one theoretical study (Chapter 2) and five empirical studies (Chapters 3 to 7) are being presented here. All chapters are either already published or have been recently submitted for publication.

Part I: Conceptualization of Arousing Television News

Chapter 2 is a theoretical chapter that provides a comprehensive conceptualization of arousing television news and a review of studies that have previously been conducted in this field. This chapter answers the first research question. Furthermore, it identifies questions regarding arousing news that remained unanswered. Hence, this review served as the basis for the empirical studies reported in the subsequent chapters.

Part II: Causes of Arousing Television News

In Chapter 3 we focus on the causes of the use of arousing characteristics in television news. This study reports the findings of a cross-cultural content analysis of television news in which news stories ($N = 3,028$) from four Western European news markets (the Netherlands, France, French-speaking Belgium, and Dutch-speaking Belgium) were compared with stories from three Asian news markets (Taiwan, Mainland China, and Hong Kong). The study

investigates whether levels of competition (both at the market level and at the news station level) cause arousing television news. In addition, the cultural factor is being investigated by comparing Western European and Chinese-dominated markets. This study is an expansion of a previous study in which the presence of arousing news characteristics in French, Dutch, Flemish, and Walloon news stories, broadcasted by both public service and commercial stations (Kleemans et al., 2008) was compared in order to study competition at the news station level and at the news market level.

Part III: Consequences of Arousing Television News

In Chapters 4 to 7 the consequences of arousing news are being discussed. Taken together, these chapters examine whether the inclusion of arousing characteristics in television news is helpful to (1) attract audiences, (2) inform audiences, and (3) to do that in accordance with traditional norms of proper journalism (e.g., objectivity and reliability). Empirical data regarding these consequences were obtained by conducting two experiments. In the first experiment, 288 highly educated participants took part. The participants varied in gender and age (ranging from 18 to 89 years old). This experiment provided data for the Chapters 4, 5, and 7. The data for Chapter 6 were obtained by an experiment in which higher and lower educated adolescents ($N = 89$) participated.

In Chapter 4 and 5 the focus is on the question whether arousing news attracts the audience. Before a news program can have any effect on its viewers, it is imperative that viewers watch the news. Although previous research provides support for the attention-grabbing and arousing capacity of arousing news characteristics in general (cf. Grabe et al., 2003; Lang, Newhagen, & Reeves, 1996; Lang, Zhou, Schwartz, Bolls, & Potter, 2000), these studies only refer to short-lived viewer responses while watching the news. Thus they are inconclusive with regard to the question whether arousing news may gain or maintain the viewer's attention in the long run. Moreover, it remains unclear whether arousing news is able to gain or maintain the attention of all viewer categories, regardless of their age, gender, and educational level. To this end, we first studied age- and gender-related viewer preferences for arousing versus non-arousing television news (Chapter 4). In this study, viewer preferences refer to the viewers' choice behavior, i.e., the type of content and packaging viewers would watch if they had a choice.

In Chapter 5 we intend to provide a deeper insight into a theoretical mechanism explaining how arousing news attracts or repels viewers of different ages and gender. Assuming that enjoyment of news, i.e., the message-related and experience-related evaluations of news (cf. Nabi & Krcmar, 2004), is an important predictor of news preference, we investigated whether the level of arousal experienced by viewers while watching news affects the level of enjoyment viewers reported after having watched more or less arousing news.

In Chapter 6, both preferences for arousing versus non-arousing news stories and recognition of these stories (as indicator of information processing) are discussed. The

study mainly focuses on the potential moderating role of level of education, but gender differences are also taken into account. The analysis is restricted to young viewers and includes first year university students ($N = 44$; mean age = 18.2) and last year students of a school for vocational education ($N = 45$, mean age = 17.4). In all, this study pays attention to the double task of news producers to attract and to inform viewers at the same time, and hence to the news critics' concern that arousing news threatens the informative function of the news by putting more emphasis on attracting audiences than on informing them.

In order to examine whether today's television news is in accordance with traditional norms of proper journalism, we focus in Chapter 7 on viewer perceptions of arousing news stories. It is not only important that viewers watch the news and learn from it, but also that viewers feel confident about the news. If they feel that they cannot rely on the news it cannot fulfill its informative function. News critics assume, for instance, that arousing news is sensational and thereby less informative and less objective. This is disputed by news producers. In response to controversy, we studied the assumption made by critics that arousing news is perceived as sensational. Additionally, we studied the viewer perceptions of the quality of arousing news stories. We also examined whether the relationship between content and packaging of news stories and both perceived sensationalism and perceived news quality is different for viewers of different ages.

In Chapter 8 we summarize our research conclusions and report some limitations, directions for future research, and theoretical and practical implications.

Part I

Conceptualization of Arousing Television News



Chapter 2

Arousing Television News: A Review¹

Arousing characteristics in television news are frequently discussed in public debate. In most instances, arousing news is conceived as a negative by-product of market-driven journalism. An increasing number of academic studies have paid attention to arousing news, especially in the area of television news. Based on an historical account of the way in which the academic concept of arousing news has evolved over the past decades, we defined arousing news as news stories with both content and packaging characteristics that have the ability to elicit arousal and attention responses in viewers. The remainder of this chapter provides a review of past studies on arousing news. In particular, attention is paid to studies regarding its causes and consequences. This review provides us with the opportunity to identify the questions that remain to be solved in future research. This chapter was therewith also a starting point for the studies in this dissertation.

¹ *Parts of this chapter were previously published in: Kleemans, M., & Hendriks Vettehen, P. (2009). Sensationalism in television news: A review. In R.P. Konig, P.W.M. Nelissen & F.J.M. Huysmans (Eds.), Meaningful media: Communication research on the social construction of reality (pp. 226-243). Nijmegen, the Netherlands: Tandem Felix.*

Arousing Television News: A Review

As indicated in Chapter 1, the way in which today's television news is shaped received ample attention in public discussions. In a nutshell, news critics blame news makers for disturbing news' informative function by 'sensationalizing' news stories. Nowadays, attracting the attention of the audience seems to be more important than informing the public about significant events. As a result, news content has become more arousing and flashier in style (e.g., Bernstein, 1992; Blair, 2007; Franklin, 1997; Gore, 2007; Jones, 2009).

Years before the start of the present study, public discussions have already served as inspiration for academic research on this topic. This chapter provides a review of studies on arousing television news. The main goal is to conceptualize arousing television news. Moreover, it aims at identifying questions regarding arousing news that remain to be answered in either this dissertation or in future research. This overview is centered on the three questions that are central to this dissertation: what is arousing television news, what are the causes of arousing characteristics in television news, and what are the consequences of arousing television news for viewers?

Conceptualizing Arousing Television News

Historical Background

The presence of arousing characteristics in news has a long history (Davis & McLeod, 2003; Grabe, Zhou, & Barnett, 2001). Arousing characteristics have already been traced during the late 1500s (cf. Stephens, in Grabe et al., 2001). From this moment, public attacks on news that includes arousing characteristics have become a periodic ritual. Grabe and colleagues (2001) mentioned discussions about the Penny Press in the 1830s and Yellow Journalism at the end of the nineteenth and beginning of the twentieth century; hence well before the rise of television journalism.

In 1833, the first successful penny paper, the *New York Sun*, appeared in the United States. This poor man's newspaper tended to be highly arousing. The focus of the articles was on local events and on news about violence. Moreover, most of the content was flippant and trivial (Emery, 1962). A few years later, a new penny newspaper emerged, the *Herald*. It was comparable to the *Sun* in using arousing material, but some new features were added. Probably the most obvious was the introduction of an aggressive style of journalism, which was adopted by a large number of penny papers in the following years. Although stories that may be characterized by vulgarity, cheapness, and spuriousness remained in penny press papers, a few years after their launch, editors began to offer more significant information in penny papers, which temporarily reduced criticism on these newspapers (Emery, 1962).

A second wave of discussions about arousing characteristics in newspapers emerged at the end of the nineteenth century with the development of Yellow Journalism. Smythe (2003) outlined the rise of Yellow Journalism, at a moment that competition between newspapers grew. The increasing availability of newspapers through lower prices made it necessary to attract the attention of large numbers of readers. Particularly low-income readers, for instance laborers and immigrants, became interesting new customers. Yellow journalists tried to make their newspapers more attractive by, for instance, emphasizing crime, by the use of large typefaces, and by an increasing amount of illustrations. Moreover, events were routinely overdramatized. A revealing example is described by Baran and Davis (2012, p. 56): in 1896, an illustrator was sent to Cuba to cover a war against Spain. When he arrived, he witnessed that there was no war and thus no possibility to get pictures. The illustrator asked his newspaper publisher for a quick return to the United States. However, the publisher answered: “You furnish the pictures and I’ll furnish the war”, something that Baran and Davis described as an intention to make up war stories that would sell more newspapers.

Davis and McLeod (2003) did not focus on a particular period in their research on arousing newspaper stories. Instead, they studied the phenomenon over time. Newspaper stories from eight different countries between 1700 and 2001 were selected. Davis and McLeod divided the time period into six periods, and for each period they counted the number of stories in which arousing topics (e.g., murder/physical assault, robbery/vandalism, rape/sexual assault) appeared. The results showed that the same general topics emerged in news stories over time. This suggests that arousing topics do not appear on the basis of time or local cultural values (Davis & McLeod, 2003). However, this result does not imply that the presence of arousing characteristics in news has remained at the same level throughout the years. Fluctuations in the use of these characteristics can be distinguished, as discussions about the Penny Press and Yellow Journalism have shown. Moreover, the emergence and growth of television news has led to renewed discussions about arousing news. In the following, we will therefore focus on the presence of arousing characteristics in television news.

Arousing News and Evolutionary Theory

Periods of public discussion about arousing news have in common that this news has been viewed with disdain time after time. Nevertheless, arousing characteristics never disappeared completely from news media. One might wonder why arousing news stories interest people over time and place. An explanation can be found in human evolutionary theory. Shoemaker (1996) argued that people, as a result of an evolutionary developed human habit, have become ‘hardwired’ to monitor the world around them. They routinely survey their environment for deviant or unusual things, because these pose potential threats. Moreover, peoples’ emotions may be aroused by negative or deviant information, which may improve performance in case this information proves indicative of a dangerous situation (cf. Lang, 1985).

Although our modern western societies are probably far more secure than our ancestor’s worlds, people still follow the news to detect threats, in particular aspects of the news that are generally defined as arousing. For instance, people pay a lot of attention to stories about crimes or natural disasters. In addition, Davis and McLeod (2003) argued that, next to survival, reproduction is an important factor to explain people’s preferences for news that is generally defined as arousing. From an evolutionary perspective, reproductive success is important to humans. For that reason, not only negative or deviant news but also news with a sexual content attracts attention.

To summarize, from evolutionary theory it may be argued that the human brain has become adapted to the task of scanning for information related to survival and reproduction. For this reason, evolutionary theory has been invoked to explain why arousing characteristics in news stories have such a long history (Davis & McLeod, 2003; Shoemaker, 1996).

Arousing Characteristics in Television News: Development of the Concept

In Chapter 1, arousing news was described as news containing characteristics that are able to provoke arousal responses, i.e., a state of alertness and physical excitation (Bente & Eschenburg, 2008), in viewers. Moreover, the attention-grabbing capacity of these characteristics was mentioned. In short, we labeled the concept *arousing news characteristics*. Examples included both content and packaging features, such as negative story topics and fast-pacing. For a long time, however, arousing television news has only been conceived in terms of story content. Stories with topics and pictures containing crimes, violence, sex, riots, fires, and disasters were typified as arousing (e.g., Adams, 1978; Grabe et al., 2001; Hendriks Vettehen, Nuijten, & Beentjes, 2005; Hofstetter & Dozier, 1986; Newhagen & Reeves, 1992; Reeves, Newhagen, Maibach, Basil, & Kurz, 1991; Ryu, 1982). Such stories contain information with survival value, and are thus closely connected to notions about human evolution. Against that background, these story topics and pictures may emotionally arouse viewers. Moreover, an attention-grabbing capability of arousing story content can be expected (cf. Davis & McLeod, 2003; Shoemaker, 1996).

Over the past decades, the presence of arousing characteristics in news has evolved in a broader sense. Slattery and Hakanen (1994) extended the measure of arousing story topic by introducing the idea of what they called ‘embedded sensationalism’: television news stories with a non-arousing topic, for instance governmental news or community affairs, that were presented in an arousing context. An example of ‘embedded sensationalism’ is a story about governmental elections in which time is dedicated to the corrupt past of one of the candidates. Furthermore, some European studies defined brief comments by laypersons and individual case histories, i.e., personalization, as arousing news characteristics (cf. Hendriks Vettehen et al., 2005, 2008, 2011; Hjarvard, 2000; Hvitfelt, 1994). Hendriks Vettehen and colleagues based their ideas on ‘vividness theory’ (Nisbett & Ross, 1980) and ‘exemplification theory’ (Zillmann & Brosius, 2000). Vividness theory argues

that vivid information, which can be defined as information that is “emotionally interesting, concrete and imagery-provoking, and proximate in a sensory, temporal, or spatial way” (Nisbett & Ross, 1980, p. 45), is more able to attract and hold the attention of viewers than non-vivid information. Exemplification theory states that exemplification, i.e., the use of cases to make an abstract issue more concrete, increases the salience of the news story for viewers and may therefore affect the way in which viewers process the story. Based on these theories, Hendriks Vettehen et al. (2008, 2011) argued that the inclusion of layperson speaking may be considered more concrete than comments by experts or politicians. Personalization increases the concreteness of a story since it makes a story less abstract. This concreteness (and therewith vividness) may increase the arousing and attention-grabbing potential of such a story, which is why layperson speaking and personalization are defined as arousing content characteristics.

Grabe and colleagues broadened the concept of arousing news by arguing that not only content, but also audiovisual production characteristics may elicit arousal and attract the attention of the audience (Grabe, Lang, & Zhao, 2003; Grabe et al., 2001). They, and other researchers, based their thoughts on cognitive psychological theories. The main model in this context is the Limited Capacity Model of Motivated Mediated Message Processing (LC4MP), which is used to investigate the way in which mediated messages like television news are processed (Lang, 2000, 2006). This model has two major assumptions. First, viewers are information processors that perceive stimuli, turn them into mental representations, do mental work on those representations, and reproduce them. Second, viewers’ ability to process information is limited, because viewers only have a limited pool of mental resources (Lang, 2000). Although the LC4MP acknowledges that viewers to some extent control the allocation of resources to the various cognitive tasks in information processing, it especially stresses the automatic allocation to the cognitive system. This automatic process is controlled by the characteristics of the message through the elicitation of orienting responses in viewers. When an orienting response occurs, a viewer’s sensory receptors will be oriented towards the stimulus, resulting in a set of physiological responses such as an increase in skin conductance (indicative of the elicitation of arousal) and a decrease in heart rhythm, indicative of attention reactions (cf. Lang, 2000, p. 52). Two major types of stimuli elicit orienting responses in viewers. First, stimuli that contain information relevant to the goals and needs of the individual elicit orienting responses. Examples include news stories about violence, sex, and death. These have been defined earlier as examples of arousing story content. Second, stimuli that represent change or unexpected occurrence in the environment elicit orienting responses (Lang, 2000). In a television news story, examples are a high number of (abrupt) changes in the picture material (fast-pacing), story length, the presence of music, the addition of sound effects, the use of an eyewitness camera, and decorative editing techniques such as wipes, dissolves, and slow motions (Grabe et al., 2001, 2003; Hendriks Vettehen et al., 2008; Lang, 2000; Lang, Bolls, Potter, & Kawahara, 1999). Moreover, Hendriks Vettehen and colleagues

(2005, 2011) pointed to close-ups of human faces as arousing production characteristic, since this visual device will be perceived as more nearby and thus more vivid. Close-ups will therefore elicit arousal and will draw the viewer’s attention.

In sum, over the past decades, the concept of arousing television news has gradually broadened. The most comprehensive concept of arousing news includes a large number of arousing characteristics that may be categorized under two broad categories: arousing content characteristics and arousing packaging characteristics. This conceptualization is largely based on work done by Grabe and colleagues (cf. Grabe et al., 2001, 2003) as they not only distinguished both content and packaging characteristics but also provided a theoretical embedding of the concept. Table 1 provides an overview of the characteristics most often applied in studies on arousing television news.

Table 1 Overview of arousing news characteristics

Content Characteristics	Packaging Characteristics
<ul style="list-style-type: none">- Arousing story topic- Embedded sensationalism- Arousing pictures- Individual case histories- Interviews with laypersons	<ul style="list-style-type: none">- Fast-pacing- Story length- Music onsets- Sound effects- Eyewitness camera- Decorative editing techniques- Close-ups of human faces

With regard to the arousing content characteristics, studies in this dissertation include only negative content characteristics since the majority of arousing content subjects refer to negative events. From now on, this category is therefore labeled *negative content*. Most research refers to arousing packaging characteristics by employing the label *tabloid packaging* (cf. Grabe et al., 2003; Hendriks Vettehen et al., 2005), and we will apply that label too.

The Validity of the Concept

In the preceding section, a broad concept of arousing news was introduced, suggesting that arousing characteristics in television news can be measured by focusing on negative content (e.g., arousing topics and pictures) and tabloid news characteristics, such as fast-pacing and music. To be sure that appropriate inferences and interpretations are made, it is important to know how valid this measurement is (cf. Riffe, Lacy, & Fico, 2005). In the social sciences, construct validity is the most appropriate and applicable type of validity (Zeller & Carmines, 1980). Construct validation takes place if researchers investigate whether their construct fits into an already existing theoretical network of related concepts (Cronbach & Meehl, 1955).

Cognitive theories in psychology have provided a basis for a theoretical network concerning arousing news. In particular, the LC4MP predicts that arousing news characteristics are able to provoke fluctuations in arousal and attention during television viewing (cf. Lang, 2000). A number of empirical studies support the expectation that characteristics of a television message elicit arousal in viewers. To measure arousal, skin conductance is used as it is an indicator of activation in the sympathetic nervous system in viewers. Next to this physiological measure, self-reported feelings of arousal have been used in previous research. A number of studies supported that arousing news characteristics, such as negative content and pictures, fast-pacing, music onsets, sound effects, the presence of an eyewitness camera, decorative editing techniques, and layperson speaking, elicit either physiological or self-reported arousal (cf. Grabe, Zhou, Lang, & Bolls, 2000, 2003; Hendriks Vettehen et al., 2008; Lang et al., 1999, 2000, 2005). Moreover, the attention-grabbing capacity of arousing news characteristics was studied. In these studies, short-lived increases in attention were indicated by a sudden deceleration of the heart rhythm, lasting for a few seconds. In particular, the attention-grabbing capability of negative content and pictures, fast-pacing, music, sound effects and decorative editing techniques was demonstrated in previous research (cf. Grabe et al., 2003, 2000b; Lang, Newhagen, & Reeves, 1996; Lang, Zhou, Schwartz, Bolls, & Potter, 2000).

As described, a number of studies have shown that arousing news characteristics act as theoretically expected. In particular, support was found for the elicitation of attention and arousal responses through fast-pacing and the inclusion of arousing story topics (cf. Hendriks Vettehen et al., 2008; Lang et al., 1999, 2000), and through arousing characteristics such as negative pictures, laypersons speaking, close-ups, and eyewitness camera (cf. Bush, Barr, McHugo, & Lanzetta, 1989; Hendriks Vettehen et al., 2008; Lang et al., 1996; Reeves, Lang, Kim, & Tatar, 1999). However, there is a general lack in support for characteristics such as decorative editing effects, music, and sound effects, because they have never been analyzed individually, but only simultaneously with other arousing news characteristics (cf. Grabe et al., 2003; Hendriks Vettehen et al., 2011). To enlarge knowledge of the construct validity, further research on these arousing news characteristics is recommended. In general, however, previous research provides support for the expectation that the arousing news measurement fits into the theoretical network as it stands, which thus contributes to the construct validity of the concept of arousing news.

The Origins of Arousing News

Market-driven Journalism and Arousing News

The second question in this overview relates to the causes of arousing characteristics in television news. McManus' market theory of news production (1994) provides insight into some of these causes. According to McManus (1994), news producers are confronted with

conflicting norms in their daily work. On the one hand, their task is to serve the public by informing them about significant events in accordance with traditional norms of proper journalism. However, on the other hand, news producers only maintain their advertising revenues in case their newscasts are watched by a considerable proportion of the population. Thus, market-driven journalism increases the need of news programs to attract viewers' attention. Moreover, news programs have been confronted with a media environment that has grown much more competitive over the past decades. As a result of increasing competition, news departments are bound to struggle for an audience more and more strongly. McManus argues that the need to attract attention has the potential to conflict with the task of serving the public. Some events that are newsworthy under journalistic norms would remain so for economic reasons. However, in most instances, market norms are incompatible with journalistic norms. For instance, selection of news on the basis of its arousing and attention-grabbing capacity could result in the selection of more attractive but less informative stories.

McManus' theory gives an explanation for the presence of arousing characteristics in news, because such characteristics have the capability to attract the attention of the audience. In present-day markets, this capacity is very important for news producers to survive. The increasing competition on news markets in various Western countries progressively urges news producers to capture the attention of the audience, which leads to the expectation that arousing characteristics in the news continues to increase.

Studies on Trends in Arousing News

A number of studies have focused on developments in the use of arousing characteristics in television news stories. These studies have been conducted within the different media systems of the US and Europe. These studies may shed some light on the assumptions of McManus' market theory.

Arousing characteristics in US news programs. The US media system is large and complex, but can in particular be characterized by decentralization and commercialization (Ostroff, 2001). There are hundreds of television stations, and commercial broadcasting is a significant component of the economy. Localism is one of the main characteristics of the American media system, especially for news programs. Most (local) broadcasters in the United States are supported by advertising. In Ostroff's words (2001, p. 417): "broadcasting in the US is advertiser-driven". For that reason, large audience shares are very important. Moreover, the change to digital services enlarged the competition on the news market (Ostroff, 2001). It is therefore expected to find an increasing presence of arousing characteristics in US news programs. Indeed, a number of studies support the expectation of an increasing use of arousing characteristics in American newscasts. First, arousing content was shown to increase over time (cf. Hofstetter & Dozier, 1986; Slattery, Doremus, & Marcus, 2001; Slattery & Hakanen, 1994). Second, it was found that tabloid packaging characteristics appeared more frequently in US newscasts (Schaefer & Martinez III, 2009).

Arousing characteristics in European news programs. Historically, most European broadcasting systems were different from the US media system in that they were publicly owned and financed. Commercial broadcasting was virtually absent. However, throughout the past decades, European public service broadcasters witnessed a deregulation of broadcasting systems (Coppens, d'Haenens & Saeys, 2001). In the same period, commercial broadcasters entered the television market, which enlarged competition and made it more important for news producers to attract the attention of the audience. As in the US, an increase in arousing characteristics in television news can also be expected in European countries.

Hvitfelt (1994) analyzed evening television newscasts in Sweden in the period 1991-1993. Results showed, first, that the number of stories containing an arousing topic increased. Second, the pace in news stories increased, for instance by inserting a higher number of cuts in the story. Finally, lay people were more often present as sources in commercial newscasts, compared to public service newscasts. Based on these results, Hvitfelt concluded that the commercial channel took the initiative to increase arousing news, and that the public service broadcaster reacted by following this tendency.

Hjarvard (2000) studied arousing news in Denmark in the 1990s. The introduction of a commercial channel next to the public service broadcasting channel, and with that a second newscast, has led to competition on the Danish television market. Hjarvard found that, throughout the 1990s, soft news and entertainment gained higher priority. Foreign news, which is assumed to be less arousing since it has a more distant character than domestic news, appeared less frequently among the top items of both newscasts. Hjarvard also found that the length of the news items and the intervals between cuts decreased on both channels. These findings indicate an increase in the use of arousing characteristics in Danish newscasts after the entrance of a commercial broadcaster.

In the Netherlands, the media landscape has seen a development similar to developments in Sweden and Denmark. Studies on arousing news revealed that the increased supply of television news by commercial broadcasters appeared to have resulted in an increasing use of different aspects of arousing news. For example, an increase in the presentation of arousing story topics, arousing pictures, close-ups, music onsets, laypersons speaking, and a decrease in shot length were observed in both public and commercial television newscasts (Hendriks Vettehen et al., 2005, 2011).

In addition to the tendency towards more arousing characteristics in European newscasts, another notable result appeared in the European studies on arousing news. In general, it was found that the use of arousing news characteristics increased more in commercial news stories compared to public service news stories. Moreover, it seems that existing public service news programs react to the entrance of new commercial broadcasters after a while by increasing the number of arousing characteristics in their own newscasts too (cf. Hendriks Vettehen et al., 2005, 2011; Hjarvard, 2000; Hvitfelt, 1994). Based on McManus' theory of news production, it can be assumed that commercial news

programs are more market-driven than public service newscasts. Public service broadcasting is (partly) financed by the government, while commercial broadcasting entirely depends on sponsoring and advertising revenues. Consequently, maximization of audience attention is financially more important to commercial broadcasters, which could explain the higher amount of arousing characteristics in their news programs.

Factors Explaining Arousing Characteristics in Television News

Although the previously mentioned trend studies provided some evidence for the role of competition as a main cause of arousing television news, these studies did not eliminate the role of contextual variables that might also influence the presence of arousing characteristics in the news, or that might moderate effects of competition. Several of these contextual variables can be distinguished. For instance, Hallin and Mancini (2004) argue that variables such as political influence on the media and journalistic orientation are noteworthy. In addition, Hvitfelt (1994) mentioned technological advances as an influential factor.

To gain insight into the factors that may explain arousing television news, Kleemans, Van Cauwenberge, d'Haenens, and Hendriks Vettehen (2008) built an explanatory model of arousing news production. The model pointed to level of competition, journalistic culture, media policy, type of broadcaster, and target group as possible explanatory factors for arousing characteristics in news. Subsequently, they put the model to the test by comparing Dutch, Flemish, Walloon, and French newscasts. A few conclusions can be derived from this study. In the first place, the study revealed that competition had a positive effect on the presence of arousing characteristics in the news. Next, news stories from commercial news programs included more arousing characteristics compared to public service broadcasts. Third, journalistic culture appeared to be an important explanatory factor for arousing television news. However, journalistic culture appeared to have radically different effects on different aspects of arousing news, leading the authors to conclude that the precise role of this factor was yet unclear. Finally, no indications were found for the role of differential media policies. To summarize, although the study of Kleemans et al. (2008) showed support for the model, it remained partly unclear in which way the factors influence the presence of arousing characteristics in television news. Moreover, the study consisted of a small number of countries, which made it difficult to disentangle possible influences. Further cross-national research on arousing characteristics in television news in a larger number of countries is thus worthwhile.

Arousing News Characteristics and the Consequences for the Informative Function

The question that remains to be answered in this overview is about the consequences of arousing news regarding its informative function. In popular discussions it is commonly assumed that arousing news coverage is at odds with the task of news media to inform citizens properly about socially significant events. How do findings from scientific studies relate to this assumption? To answer this question, three lines of studies were reviewed: the appeal of arousing television news, the information processing of this news, and viewer perceptions regarding the performance of arousing news. The rationale behind these questions is that news can be informative provided that members of the audience watch it (appeal), learn from it (information processing), and feel confident about it (perceived performance).

Studies on Audience Appeal of Arousing News

News can only fulfill its informative function if the audience watches it. That makes it noteworthy to study the appeal of (arousing) news. Lang et al. (2005) studied in a free-choice news-viewing environment how production pacing and story length of television news stories affect viewer preferences. Both the time spent on a newscast (channel changing behavior) and the evaluation of the newscast (a variable that was based on statements such as perceived enjoyment, believability, and interestingness of the news), were seen as indicative for viewer preferences. Moreover, the role of arousal and cognitive effort were studied. It was found that physiological arousal and cognitive effort declined prior to a channel change, whereas these variables increased after the channel change. This suggests that viewers changed channels as a result of decreasing interest and arousal. In addition, short stories and fast-pacing increased cognitive effort and arousal in viewers, especially among younger viewers, implying that these arousing news characteristics can be used to combat channel changing. Related to viewers' evaluations of the news stories, Lang et al. (2005) found that fast-pacing improved evaluations for both younger and older viewers. However, for older viewers this improvement was only found in long stories. For younger viewers fast-pacing in both longer and shorter stories resulted in better evaluations.

Hendriks Vettehen et al. (2008) studied the appeal of arousing news stories in a different way. They assumed liking of television news stories to be an important predictor of exposure. For that reason, they asked participants to evaluate a large number of news stories that differed in degree of arousal they elicited. After watching each story, the participants rated how much they liked the story. Hendriks Vettehen and colleagues expected an inverted U-shaped relationship between emotional arousal and liking: emotional arousal was expected to have a positive effect on the degree to which the stories were liked, however, only up to a certain level of arousal. Beyond that level, the

relationship was predicted to become negative. In other words, too little and too much emotional arousal elicited by arousing news characteristics was expected to result in less liking of the story. The results of the study supported the predictions. Emotional arousal mediated effects of arousing news characteristics on liking. Moreover, the relationship between emotional arousal and liking took the shape of an inverted U.

These studies on the appeal of arousing news indicate that the arousal elicited by news stories affects the audience appeal of these stories. However, it remains partly unclear how arousal exactly relates to appeal. The study of Lang et al. (2005) showed that viewers change channels as a result of low levels of arousal, while the study of Hendriks Vettehen et al. (2008) indicate that both low and high levels of arousal are not preferred by viewers. These diverging findings may well be explained by a number of methodological differences between the studies. However, one of these differences may provide a more theoretical explanation. Hendriks Vettehen et al. (2008) studied older viewers, while Lang et al. (2005) focused on both older and younger viewers. The viewer's age is expected to be an important factor in this context. In particular, there are reasons to assume that viewers of different ages differ in their need for arousal (Zuckerman, 1994; Zuckerman, Eysenck, & Eysenck, 1978). In general, younger viewers will have a greater need for arousal than older ones, suggesting that younger viewers prefer a higher level of arousal, and will therefore prefer more arousing news stories. Older viewers often are so-called low sensation seekers, who prefer a lower level of arousal in news messages. In future research, attention may be paid to age and need for arousal as moderators in the relation between the presence of arousing news characteristics and exposure to news stories.

Another relevant moderator in research on the appeal of arousing news is gender. Previous research already showed that men and women differ in their reactions to arousing content. Kamhawi and Grabe (2008) found that women enjoyed positively framed news stories more than negatively framed news stories, while the opposite was found for men. Also in studies by Slone (2000) and Klein (2003) it was found that women showed avoidance responses to negative news. Women reported greater anxiety and worry in response to negative news stories compared to men. The studies on gender-related differences in the appeal of arousing content indicate that gender is an important moderator. Further research should focus on possible gender differences regarding the packaging of news stories, since this has not been studied before.

Finally, there is preliminary support for level of education as moderator in the relationship between arousing television news and its appeal. Grabe, Lang, Zhou, and Bolls (2000) found a main effect of education on enjoyment for negative content stories, indicating that higher educated viewers enjoyed negative arousing content news more than lower educated viewers. Differences in preference between high and low educated viewers for both neutral content and for the packaging of television news stories were beyond the scope of their study. It is therefore recommended to include these variables in further research on this topic.

Studies on the Information Processing of Arousing News

Next to studies on appeal, a considerable number of studies focused on the processing of arousing television messages. Once the attention of viewers is caught and maintained, the question is how well information is processed and consequently, how well the audience is informed by the news. The relationship between arousing television news characteristics and information processing was studied by measuring recall and recognition of news stories. Moreover, some studies focused on the moderating role of demographic variables in the relationship between arousing news stories and information processing.

As expected, previous research showed that arousing news characteristics may affect memory. For instance, Brosius (1993) found that the use of emotional pictures, which is related to what is labeled arousing pictures here, resulted in attention to the emotional parts of a news item, and that these visuals led to recall errors in the information given in television news text. Viewers paid differential attention to certain aspects of an item. As a consequence, most of the information in the item got lost. Viewers reconstructed the information, based on the general impression of the item or the details on which they focused, resulting in recall errors. In addition, Zillmann and Brosius (2000) summarized studies on the use of exemplification, i.e., the use of case histories to make an abstract issue more concrete. They found that exemplification resulted in more attention to the examples and less to the general information in the news item. This implies that exemplification distracted the attention of viewers and made them sensitive for only certain parts of a news story. As a consequence, exemplification distorted the issue perception of the viewer.

Other studies showed that arousing characteristics may enhance memory to some extent. For example, Lang et al. (1999) investigated how the use of camera shots and arousing content relates to viewer's information processing. They found that both fast-pacing and arousing content increase recognition and cued recall for the content of the message. However, the combination of fast-pacing and arousing content resulted in less recognition and cued recall. Comparable results were obtained by Grabe et al. (2003). In their study, it was shown that the presence of tabloid packaging characteristics (e.g., music, sound effects, and slow motion) in a story without an arousing content attracted the attention, and that it had a positive influence on recognition, cued recall and free recall. However, when arousing packaging characteristics were applied to news stories that contain an arousing content, poorer memory scores were found.

In sum, in studies on the information processing of news, three main consequences of arousing characteristics were observed. First, to a certain level, arousing characteristics in news could enhance memory. Second, the use of combinations of arousing content and tabloid packaging characteristics may result in recognition and recall problems. And third, studies suggested that arousing characteristics may distract the viewer's attention.

Explanations for these results can be found in the earlier mentioned LC4MP (Lang, 2000, 2006). This model states that television viewing involves the continuous allocation

of a limited pool of resources to the cognitive processing of the message. This process includes the simultaneously performed tasks of encoding, storage, and retrieval. Both the viewer and characteristics of the message affect the allocation of resources to cognitive processing. In general, the viewer controls some aspects of the allocation of resources by making decisions about, for instance, whether to watch and how carefully to watch. Characteristics of the message, in particular arousing characteristics, automatically evoke the allocation of resources.

The LC4MP suggests that as the use of arousing news characteristics increases, the number of orienting responses elicited by the message increases. The amount of information available for encoding should increase, and as a result, the viewer should automatically allocate more resources to encode this message (Lang et al., 1999). Because of the increase in allocation of resources, recognition and recall of the message increases. However, viewers have a limited availability of processing resources. If a message contains too many arousing news characteristics, the available resources are insufficient. Cognitive overload of the information processing system occurs, which results in poorer cognitive performance (cf. Lang, 2000, 2006; Lang et al., 1999). In case of insufficient resources, it could be that some aspects of the message will be processed well, while others will not. This might be an explanation for the finding that some aspects of arousal, like emotional pictures and layperson speaking, distracted the attention of viewers and made the viewer sensitive for only these parts of the story.

In addition to studies on the relationship between arousing news and information processing, attention is paid to the question whether demographic variables may moderate this relationship. An obvious demographic characteristic to study in this context is level of education. Surprisingly however, this moderator received limited attention in previous research. Grabe, Yegiyani, and Kamhawi (2008) found smaller gaps in recognition and recall for arousing content stories between high and low educated viewers than for low arousing content stories. The moderating role of educational level for the processing of stories packaged in either a tabloid or standard style has not been studied before. Besides educational level, gender received some attention in previous research. Again, only its influence regarding the content of news stories was studied. Grabe and Kamhawi (2006) found that men processed negative content stories better than positive stories, while women processed the positive stories better than the negative ones. Regarding age, Lang et al. (2005) found that older viewers had a better recognition for the news stories in their study than the younger viewers. However, possible differences in recognition for the fast-paced stories versus the slow-paced stories between the different age groups were not reported. Studies on public service announcements provide some indications that younger viewers process fast-paced messages better than older viewers and that a combination of content and packaging may influence the information processing for younger and older viewers in a somewhat different way (Lang, Schwartz, Chung, & Lee, 2004). However, it remains unclear whether these differences will also be

observed when studying arousing television news. In all, the moderating role of diverse demographic variables is underexposed in studies on information processing.

Studies on the Perceived Performance of Arousing News

The last and less frequently studied line of research on the consequences of arousing news focuses on the perceived performance of arousing news. The reasoning behind this line of research is that it is not only important that viewers watch and learn from the news, but also that they feel confident about it. If viewers distrust the news, one might question whether television news serves its democratic function in society.

Only three studies addressed the issue of viewer perceptions regarding the performance of arousing television news. Studies in this line have addressed different types of evaluations: the believability, informativeness, objectivity, and sensational character of news stories. Grabe and colleagues (Grabe et al., 2000b, 2003) showed that viewer perceptions in terms of believability, informativeness and -only in the 2003 study- objectivity were influenced by the content and packaging of news stories. Participants rated standard-packaged stories as more believable (Grabe et al., 2000b, 2003), objective (Grabe et al., 2003) and informative (Grabe et al., 2000b) than tabloid-packaged stories. In addition, arousing content stories were perceived as less informative than calm content stories (Grabe et al., 2003). These results seem to imply that viewers have more negative perceptions of arousing content and tabloid-packaged news compared to respectively calm content and standard packaging. Wang and Cohen (2009) studied viewer perceptions of sensationalism for both arousing content and tabloid packaging. Their study seems to confirm that viewers perceive tabloid-packaged stories in a negative way. Regarding the content of news stories, no differences in perceived sensationalism were found. In addition, Wang and Cohen (2009) provide some support for age and level of education as moderators in the relationship between arousing television news and viewer perceptions. Gender did not moderate this relationship. However, the support provided by the study is preliminary since the design of the study is limited: viewers were not exposed to news stories, but were asked to make estimations about a number of content and packaging characteristics. Moreover, the substantial differences between the studies of Grabe et al. (2000b, 2003) on the one hand, and the study of Wang and Cohen (2009) on the other hand make further research necessary to get more insight into viewer perceptions of arousing television news and the possible influence of moderating variables.

Conclusion

Inspired by public discussions, an increasing number of academic studies have paid attention to arousing characteristics in television news. This overview of studies started with conceptualizing arousing television news. The concept of arousing news was

broadened in the past decades to a concept that includes a large number of arousing content characteristics and arousing packaging characteristics. Moreover, theoretical embedding of the concept in the LC4MP was provided. Arousing news characteristics may best be summarized by their ability to elicit arousal and attention responses in viewers. In previous research, indications for the construct validity of this concept were found. However, some arousing characteristics were only studied simultaneously, which means that there is a lack in support for their individual ability to evoke attention and arousal responses.

The second question related to the causes of arousing television news. Studies on trends in arousing news showed that the use of arousing characteristics increased over the past decades. The increasing competition on news markets in Western countries is assumed to be an important explanation for this trend. However, the role of contextual variables that may also affect arousing characteristics in news remains unclear. Comparative research in a number of countries could enlarge knowledge about explanatory factors for arousing television news.

Third, three lines of studies regarding the consequences of arousing television news for its viewers were reviewed. To serve its democratic function in society, it is important that viewers watch the news, learn from it, and feel confident about it. For that reason, studies addressed the appeal of arousing news, the information processing of this news, and viewer perceptions regarding the performance of arousing news. Previous research provides indications that the appeal, information processing, and viewer perceptions of arousing news are affected by negative content and tabloid packaging in news. However, future research should in particular pay attention to the possible moderating role of important demographic variables such as age, gender, and level of education, since these factors received little attention in previous research.

To conclude, more research on arousing television news is necessary, in particular to disentangle its causes and consequences. Besides a theoretical contribution, such research is also interesting for journalists who want to attract and maintain the attention of the audience, inform the public properly, and want that viewers trust the news at the same time.

Part II

Causes of Arousing Television News



Chapter 3

Competitive Pressure and Arousing Television News: A Cross-Cultural Study¹

In many scholarly writings about journalism, the idea can be found that competitive pressure urges journalists to make news more arousing. This hypothesis was tested in two cultural settings: the Western European culture and the Chinese-dominated culture. A total of 3028 TV news stories from seven different markets, or 12 different news programs, were analyzed on the presence of arousing news characteristics. High competitive pressure at the market level appeared to contribute to the prevalence of arousing news, but this effect was more pronounced in the Chinese-dominated culture than in the Western European culture. Effects of high competitive pressure at the station level were only observed in the Western European culture.

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Competitive Pressure and Arousing Television News: A Cross-Cultural Study

On the eve of his retirement as British Prime Minister, Tony Blair delivered a speech in which he commented on changes in the news media. "The result is a media that increasingly and to a dangerous degree is driven by 'impact,'" Blair said, "Impact is what matters. It is all that can distinguish, can rise above the clamour, can get noticed. Impact gives competitive edge. Of course, the accuracy of a story counts. But it is secondary to impact." Later in his speech he explained: "The audience needs to be arrested, held, and their emotions engaged. Something that is interesting is less powerful than something that makes you angry or shocked" (Blair, 2007).

Tony Blair does not stand alone in his criticism. In both popular and scholarly discussions about the news media, Blair's claims are consistently echoed. In these discussions, market-driven journalism is generally regarded as a major cause of arousing news, because competitive pressure compels news producers to improve their ratings. Making news more emotionally arousing is considered a successful way to achieve this goal (e.g., Bird, 2000; Franklin, 1997; McManus, 1994). The idea that competitive pressure promotes arousing news is the focal point of this study.

In line with the negative opinions on emotionally arousing news, the subject has been studied under various pejorative labels such as 'tabloidization' (e.g., Bek, 2004; Bird, 2000) and 'sensationalism' (Grabe, Zhou, & Barnett, 2001; Hendriks Vettehen, Nuijten, & Beentjes, 2005; Hofstetter & Dozier, 1986; Slattery & Hakanen, 1994). This negative connotation for arousing news is not restricted to news scholars and journalists. Studies by Grabe, Zhou, Lang, and Bolls (2000) and Grabe, Lang, and Zhao (2003) demonstrate that an arousing story topic or a flamboyant production style may lead viewers to rate news stories as less journalistically sound. Moreover, many studies on the effects of arousing news have shown that although arousing characteristics may be effective in getting viewers' attention, they may in various ways interfere with information processing (e.g., Aust & Zillman, 1996; Brosius, 1993; Grabe et al., 2003; Lang, Bolls, Potter, & Kawahara, 1999). The majority of these studies have dealt with television news. Considering the still pervasive role of television news as a source of political information, the scholarly effort put into studying arousing television news is understandable and justifies why this study continues examination of this programming format.

A gradual increase in television news programs employing arousing storytelling methods has been demonstrated, both in the US (e.g., Hofstetter & Dozier, 1986; Slattery & Hakanen, 1994; Slattery, Doremus, & Marcus, 2001) and a number of European countries, including Sweden (Hvitfelt, 1994), Denmark (Hjarvard, 2000), and The Netherlands (Hendriks Vettehen et al., 2005). The explanatory role of increased competitive pressure in the TV news market has been supported by European studies seeking a correlation between arousing news characteristics and significant events in the life cycles of public

service news and its commercial rivals. Although these studies provided indications for increased competitive pressure as a main source of arousing news, they could not eliminate the role of contextual factors that might also influence arousing news. For this reason, the present study investigates the role of an important contextual factor that might be of interest in this respect: the cultural factor. More specifically, this study will focus on differences in arousing news between news markets with varying degrees of competitive pressure and on differences between news programs with varying levels of dependency on advertising revenues. In addition, this study will investigate whether or not similarities in the types of differences between markets and programs can be observed in different cultural contexts: namely, a Western (European) cultural context and an Eastern (Chinese-dominated) cultural context.

Arousing Characteristics in Television News

In this study, we have discerned six news characteristics that share the potential to emotionally arouse viewers, all of which have regularly been studied in television news, and their arousing potential has been demonstrated (for an overview cf. Kleemans & Hendriks Vettehen, 2009). The first of these is the most traditional measure of arousing news (e.g., Adams, 1978), and has been included in virtually every study on arousing news. In this study, this characteristic is labeled *arousing topics*, which refers to stories dealing with crime, violence, natural disasters and accidents in television news programs.

The second arousing news characteristic is labeled *dramatic pictures*. The concept of 'dramatic pictures' in news stories refers to images of potentially dangerous situations (e.g., violence, disasters), or images showing possible outcomes of these situations (e.g., dead bodies, havoc). This category has been used as an aspect of arousing news in several studies both in Europe (e.g., Hendriks Vettehen et al., 2005) and the US (Slattery & Hakanen, 1994; Slattery et al., 2001). Although the presence of dramatic pictures may coincide with the presence of an arousing story topic, this is not necessarily true. In some instances, news directors may be reluctant to show dramatic pictures while covering an already dramatic event. In other instances, they may use this kind of footage to liven up a non-dramatic story, a practice that has been labeled 'embedded sensationalism' (Slattery & Hakanen, 1994; Slattery et al., 2001).

The third and fourth arousing news characteristics are formal features of news stories. The *frequency of camera shots* has been described in several studies on arousing news, both in Europe (Hendriks Vettehen et al., 2005; Hjarvard, 2001; Hvitfelt, 1994), and the US (Grabe et al., 2001). *Tabloid transitions* have been studied as elements of arousing news in Europe (Hendriks Vettehen et al., 2005) and the US (e.g., Grabe et al., 2001). Tabloid transitions refer to decorative editing techniques such as wipes, fades, dissolves, and the addition of multiple pictures into one frame.

The fifth and sixth arousing news characteristics have been inspired by European studies on arousing news characteristics (Hendriks Vettehen et al., 2005; Hjarvard, 2000; Hvitfelt,

1994). These attributes reflect efforts by journalists to close the social distance between the viewer's real world and news events that are often remote and abstract. Both strategies share the involvement of laypersons rather than politicians, spokespeople, or experts who comment on a news event. One strategy, which is labeled *laypersons* in this study, features comments on a story topic that are made by anonymous citizens. Prototypical examples of these are sound bites by randomly chosen bystanders or eyewitnesses. The other strategy goes one step further in closing the gap between the viewer's real world and the world of news events. This strategy, which is labeled *personalization* in this study, does not feature laypersons as anonymous, randomly chosen commentators. Instead, these persons are introduced as the human faces representing the story issue.

Competitive Pressure

Influences on the news production process may have different origins, ranging from the values and beliefs of the production personnel to differences between news markets (cf. Shoemaker & Reese, 1996). In this cross-cultural study, macro, social level influences are being considered. Specifically, it examines two-level influences of competitive pressure: the level at the individual market, and the level at the individual news station.

Competitive pressure at the market level. Basic principles of economics dictate that (a) similarity of products, (b) a large number of sellers and (c) potential buyers, as well as (d) a minimum of entry barriers contribute to a market in which competitive pressure maximizes. These same principles can be applied to the marketing of media products (e.g., Hoskins, McFadyen, & Finn, 2004). Below, we will elaborate on each of these contributors to competitive pressure in the television news market.

First, the more *similar products* are, the more likely buyers will consider these products as substitutes for each other, and the more these products may compete (e.g., Hoskins et al., 2004; Picard, 1989). In this study, the similar products are prime-time television newscasts in the markets' native language that are aimed at a nationwide audience, that cover a wide range of news events (both national and international news), and hence we may refer to as 'flagship' news programs. The main influence on competitive pressure that a flagship news program will experience will come from other flagship news programs. Other non-flagship news programs within the market may also contribute to the competitive pressure, but considerably less so, as they are no comparable substitutes for the flagship news programs. For instance, cable news channels may provide prime-time newscasts in the markets' native language that cover a wide range of news events. However, these newscasts are only available to subscribers.

Second, the more *suppliers of similar products*, the more they will compete (e.g., Hoskins et al., 2004; Picard, 1989). Within the market for flagship news programs, it may be expected that the larger the number of flagship news programs, the harder it becomes for each of them to reach a large audience, and the more competitive pressure each of them will experience.

Third, *the numbers of buyers* also matters (e.g., Hoskins et al., 2004). The most obvious example, which fortunately does not apply to the television news market, is the case of just one or few buyers who dictate the market (i.e., monopsony or oligopsony). However, another example, which does apply to the television news market, is the case of large numbers of 'buyers' (audience reached). Regarding large number of buyers, Zaller (1999, p.10) gave an example of two news stations, one in a market of 500,000 viewers and one in a market of 18 million viewers. Gaining one percent of the audience in the small market would amount to 5,000 additional viewers, whereas gaining one percent in the large market would amount to 180,000 viewers, and probably considerably larger advertising revenue. Thus, the pressure to go after the additional one percent may be expected to be larger in large markets.

Finally, the absence of *entry barriers* refers to the degree of governmental regulation, which also contributes to the competitive nature of particular markets (e.g., Hoskins et al., 2004; Picard, 1989). One example is the dramatic deregulation of the broadcast markets that took place in many EU countries during the 1980s and 1990s, which removed entry barriers for commercial broadcasters, and which allowed for the end of public service broadcasters' monopolies and an explosive growth of commercial stations (d'Haenens & Saeys, 2007). Many of these newcomers started to air news programs, thus increasing the degree of competitive pressure in these markets (e.g., Hendriks Vettehen et al., 2005). In the Chinese-dominated markets, a similar development took place since the market reforms began in earnest in the early 1990s (Zhou, 2008). Apart from allowing commercial broadcasting, governmental deregulation may include removing restrictions regarding revenues from sponsorships and advertising in the case of public service broadcasters, thus stimulating them to compete with commercial stations. In sum, the less regulation, the more competitive pressure can be expected (d'Haenens & Saeys, 2007; Hallin & Mancini, 2004).

In this study, we investigate the prevalence of arousing news characteristics in television news markets that can be characterized as either low or high on competitive pressure. Because the literature suggests that in highly competitive markets, newscasts will be more inclined to struggle for an audience, we expect:

H1: Television news stories in markets where competitive pressure is higher will manifest more arousing characteristics than television news stories in markets where competitive pressure is lower

Competitive pressure at the news station level. Competitive pressure for television stations can be expected to be more severe as the degree of government investment in these stations diminishes. The main reason is that private stations are entirely dependent on sponsorships and advertising revenues, while stations with a significant degree of government funding are less dependent on sponsorships and advertising revenues. Consequently, maximization of their audience is paramount to the financial survival of

private stations (d'Haenens & Saeys, 2007). This financial situation makes it more likely for private news stations to feature arousing news; a hypothesis that has received support in earlier studies conducted in Denmark (Hjarvard, 2000), Sweden (Hvitfelt, 1994), and The Netherlands (Hendriks Vettehen et al., 2005).

There are also reasons for *not* expecting large discrepancies in competitive pressure between private stations and stations with a significant degree of government funding. First, over the past decade public service stations in some countries (i.e., France, the Netherlands, Taiwan, and Hong Kong) have been increasingly allowed to compete with private stations for advertising revenues, although in the EU, market distortion by public service stations has become a high priority issue on the policy agenda lately. Second, another recent trend in the media policy of some countries (i.e., Flanders, French-speaking Belgium, and The Netherlands) has been to consider public service broadcasting organizations as actors with whom arrangements can be made in terms of performance criteria – among which viewer ratings are increasingly featured as an important criterion (d'Haenens & Bardoel, 2007; Puppis, d'Haenens, & Saeys, 2007). Even though the pressure on public service broadcasters to compete with private broadcasters has considerably increased, we expect:

H2: News stories from private news stations will manifest more arousing characteristics than news stories from stations with a significant degree of government funding

Arousing Content and Competitive Pressure in Different Cultures

Cultural differences may constitute a third level of influence on arousing television news content. In this study, we concentrate on differences between Western and Eastern cultures, and more specifically between Western European and Chinese-dominated cultures.

Whether the levels of competitive pressure associated with the markets and the news stations have similar effects in diverse cultures remains a challenging question. One might argue that the arousing potential of news characteristics in this study is probably universal (cf. Davis & McLeod, 2003; Shoemaker, 1996), and thus relatively similar across cultures. News directors from different cultures can resort to the same arousing news characteristics when competing for an audience. From this perspective, competitive pressure is not expected to have different effects on the presence of arousing news in Western European and Chinese-dominated cultures.

However, there is also reason for expecting a moderating effect of the differences between Western European and Chinese-dominated cultures. The main differences between the two may well be described by Hofstede (2001) who mapped cultural differences between numerous countries. In his view, the Western European culture could be described as individualistic and short-term oriented, whereas the Chinese-dominated cultures could be described as collectivistic and oriented towards the long term. Since individualistic culture emphasizes such values as independence and freedom,

and its members conceive of themselves as unique persons who give priority to personal achievements over group goals, it is conceivable that Western European producers would regard the station's immediate success and its coffer prowess as a barometer of success. In contrast, since collectivistic culture gives priority to harmony and solidarity, its members consider themselves connected with others and tend to subordinate personal goals to group goals (Hofstede, 1991; Triandis, 1995). It is conceivable that producers in the Chinese-dominated culture tend to perceive themselves as member of a society and that the greater good of society takes precedence over the short-term gains of the station (cf. Hofstede, 2001, p. 361). As a result, when confronted with a situation of large competitive pressure, producers in the Chinese-dominated culture may exercise more prudence before sensationalizing the news, thus refraining themselves from overreaching the arousing nature of news content.

In sum, theoretically there are reasons for expecting different effects of competitive pressure in diverse cultures, but also reasons for not expecting different effects. Hence, we pose the following research questions:

RQ1: Does competitive pressure have similar effects on arousing news characteristics in Western European and Chinese-dominated cultures?

RQ2: Does the degree to which news stations are private have similar effects on arousing news characteristics in Western European and Chinese-dominated cultures?

Method

Design

We examined newscasts from four West European markets and three Chinese-dominated markets. The West European markets were France, the Netherlands, and the two language communities in Belgium (Dutch-speaking Flanders and French-speaking Belgium). The three Chinese-dominated markets were Taiwan, Mainland China, and Hong Kong. In each of these markets, we examined 'flagship' news programs. Flagship news programs were defined as airing (a) prime-time newscasts (b) in the markets' native language (c) aimed at a nationwide audience and (d) that cover both national and international news. Based on the number of flagship news programs, the market size, and the degree of governmental regulation, each market was assigned to the categories of 'high' or 'low' competitive pressure.

In spite of mainland China's enormous market potential given its size (1.3 billion inhabitants), China was assigned to the low competitive pressure category. The reason for this is the high degree of governmental control preventing competition in flagship newscasts. In fact, mainland China has only one nationwide broadcaster, CCTV, and just one flagship news program (Zhou, 2008), in spite of numerous provincial and municipal

news programs. Two European markets were also assigned to the low competitive pressure category: Dutch-speaking Flanders and French-speaking Belgium. The reason for this is that each of these markets has just two flagship news programs, which compete on fairly small markets (Saeyns & Antoine, 2007): there are 6 million Dutch-speaking inhabitants and 4 million French-speaking inhabitants.

Taiwan and Hong Kong were assigned to the 'high' competitive pressure category. Especially Taiwan, a mid-sized market (23 million inhabitants), may be characterized as having an extraordinarily fierce competition. There are five broadcasters airing flagship news programs (Lin, 2009). In addition, there are 13 cable news networks airing numerous newscasts around the clock. These cable news networks may somewhat contribute to the competitive pressure. And although Hong Kong is only a small market (7 million inhabitants), competition for flagship news programs is substantial, featuring two flagship news programs in native Cantonese and several cable news networks (TVB, 2009). The two remaining European markets (France and the Netherlands) were also assigned to the high competitive pressure category. The reason for this is not so much the number of flagship news programs. Both The Netherlands and France feature two flagship programs (Regourd, 2007; Van der Haak & Van Snippenburg, 2007). However, each market also features a cable news channel that may somewhat contribute to the competitive pressure. In addition, the Netherlands (16 million inhabitants) and especially France (63 million inhabitants) are considerably larger markets than the two tiny Belgian markets.

For each of the selected markets, news stories were content analyzed from two flagship programs featuring both domestic and international news. One program was broadcast by a station that at the time of the data collection was completely private (the 'high degree of privatization' category), and hence completely dependent on advertising and sponsoring revenues; the other program was broadcast by a station that was at best partially private (the 'low degree of privatization' category), and hence less dependent on advertising and sponsoring revenues. Exceptions to this rule were mainland China (with only stories from the public service newscast analyzed, which belongs to the 'low degree of privatization' category) and Hong Kong (with only stories from the main commercial newscast analyzed, which belongs to the 'high degree of privatization' category).

Sample

For each of the 12 selected stations, main evening newscasts were recorded. Two constructed weeks were assembled. To reach this goal, newscasts were recorded on 14 selected days in the fall of 2007: September 6, 12, 18, 24, and 30, October 6, 12, 18, 24, and 30, and November 5, 11, 17, and 23. The total number of newscasts in the sample was 168. Except the weather reports, all news stories from each newscast were content analyzed, which resulted in 3028 stories being coded. Table 1 provides an overview of the markets, stations, and numbers of stories per station included in the sample.

Table 1 Overview of markets and stations in the study

Culture	Degree of Competitive Pressure	Name of Station	Degree of Privatization	Name of News Program	N of Stories
European	Low – Flanders	VRT	Low	Het Journaal	250
	Low – Flanders	VTM	High	Het Nieuws	300
	Low – French speaking Belgium	RTB-f	Low	Journal Télévisé	220
	Low – French speaking Belgium	RTL-TVi	High	Le Journal	257
	High – Netherlands	NOS	Low	NOS Journaal	166
	High – Netherlands	RTL	High	RTL Nieuws	137
	High – France	FR2	Low	Le Journal	273
	High – France	TF1	High	Le Journal	293
Chinese	Low – Mainland China	CCTV	Low	News Roundup	337
	High – Hong Kong	TVB Jade	High	Evening News	164
	High – Taiwan	TTV	Low	TTV News	416
	High – Taiwan	TVBS	High	TVBS News	215

It should be noted that in the case of Taiwan, the news program in the ‘lower degree of privatization’ category was not taken from the main public broadcaster, i.e., Taiwan Broadcasting System (TBS). The reason for this was that during the data collection time, the newly merged TBS was in the middle of an attempt to integrate the two news departments of Public Television Service and Chinese Television System. This integration process led to a series of conflicts in news practices and cultures, which eventually caused TBS to give up the newsroom convergence (Taiwan Media Watch, 2008). This is why TBS was not considered a good candidate to be assigned to the ‘lower degree of privatization’ category.

As an alternative, the semi-public TTV was considered a candidate for the ‘lower degree of privatization’ category. At first sight, this station also seemed to be troublesome as the station finished releasing its government shares and changed the chairman of the board in September 6, 2007 (Yu, 2007), just at the start of the data collection for this study. Nominally, this made TTV a fully private station. The reason for still assigning TTV to the ‘lower degree of privatization’ category is that during the period of data collection (the fall of 2007), a large-scale organizational restructuring and downsizing of manpower had not yet occurred (cf. Wu, 2008). In fact, having completely changed the leadership (e.g., board

of trustees) in December 2009, its Public Relation officially considered 2008 as the starting year of privatization (TTV Information, 2010). Thus, at the time of our data collection, TTV’s news department was expected to still keep its old ways of news making and journalistic practices, and hence the collected news content was expected to reflect the station’s original mission to serve the public interest broadcasting style.

Measurement

The six arousing news characteristics were included in a coding instrument based on earlier codebooks by Hendriks Vettehen et al. (2005) and Grabe et al. (2001). In a number of training sessions, coders from different home languages (French, Dutch, and Chinese) were trained. In addition, an instruction DVD was produced in a language that was understood by every coder (English). The DVD included the codebook and code sheets, examples of news fragments to illustrate each arousing characteristic, a training schedule, exercises (as homework for the coders) in the form of English language (US network) news stories to be coded, and expert codings of these stories (i.e., codings by two of the researchers who developed the codebook) to check the coding exercises.

A total number of 12 coders were involved in coding the Dutch and Flemish news stories. To estimate their intercoder reliabilities, 213 stories were double-coded by different combinations of coders. Three coders were involved in coding the French news stories and the news stories from French-speaking Belgium. To estimate reliabilities of the coders involved in coding the news stories from France and French-speaking Belgium, 48 stories were double-coded by different combinations of coders. A total of 14 coders were involved in coding the Taiwanese, Chinese, and Hong Kong newscasts. To estimate reliabilities of the coders involved in coding the Taiwanese, Chinese, and Hong Kong stories, 49 stories were double-coded.

Krippendorff’s Alphas were computed using the SPSS-macro described by Hayes and Krippendorff (2007). Taking Krippendorff’s (2004, p. 241) criteria for acceptable (.67) and good (.80) as a yardstick, the Krippendorff’s Alpha’s were generally satisfactory and ranged from .78 to 1.00 for the Dutch language codings, between .74 to 1.00 for the French language codings, and between .73 and 1.00 for the Chinese-language codings. The only exceptions to this rule were the somewhat low Alpha’s for the Dutch-language codings on the tabloid transitions features wipes (.65) and dissolves (.60). These might be explained by the skewed distributions of these indicators, in combination with the relatively small reliability sample. In addition, no systematic disagreement between coders was observed on these indicators, implying that findings on the composite measure ‘tabloid transitions’ may at worst be somewhat attenuated.

Some arousing characteristics that have been included in other studies (e.g., loud and fast music, close-up) could not be included in the study because of unsatisfactory intercoder reliabilities. Table 2 provides an overview of the six arousing characteristics that were included in the study, including brief definitions, intercoder reliabilities, and

descriptive statistics. Except for dramatic story subject, the arousing news characteristics were expected to correlate with the duration of the story. For example, it could be that longer news stories have more camera shots and tabloid transitions, just because of the story length. For that reason, it was decided to calculate the number of observations per minute for all arousing characteristics, by dividing the counted characteristics by the duration of the story.

Table 2 Overview of arousing news characteristics in the study

Variable	Definition
Dramatic story subject	The presence of at least one of the categories violence, criminality, accident/disaster, extremism, unnatural death, sex, drugs, celebrities, and scandal (Alpha = .78/.74/.77 ^a ; presence = 35%).
Dramatic pictures	The number of camera shots per containing footage of at least one of the categories violence, accident/disaster, people with physical injuries, death per minute (Alpha = .89/.79/.73; $M = 1.30$; $SD = 3.72$).
Camera shots	Number of camera shots per minute (Alpha = .97/.99/.98; $M = 13.85$; $SD = 7.23$).
Tabloid transitions	The number of wipes (Alpha = .65/1.00/1.00), fades (Alpha = 1.00/n.a. ^b /1.00), and dissolves (Alpha = .60/.84/1.00) per minute, which were summed ($M = .98$; $SD = 1.62$).
Personalization	The number of talking civilians who are introduced verbally or visually per minute (Alpha = .83/.75/n.a. ^b $M = .19$; $SD = .49$).
Layperson speaking	The number of talking civilians who are anonymous per minute (Alpha = .83/.79/n.a. ^b $M = .16$; $SD = .52$).

^a The first value of Alpha refers to the Dutch-language codings, the second value refers to the French-language codings, the third value refers to the Chinese-language codings.

^b Not available: value could not be computed.

Results

A multivariate analysis of variance was used to observe the effects for the two independent variables 'competitive pressure' (with Flanders, French-speaking Belgium, and Mainland China as low, and the Netherlands, France, Hong Kong, and Taiwan as high) and 'type of station' (low or high degree of privatization), and the interactions between these variables and the moderator variable 'culture' (Western European or Chinese-dominated culture). The six arousing news characteristics were the dependent variables.

Strictly speaking, analysis of variance assumes normally distributed dependent variables. This assumption was not met in the case of the dichotomous variable of dramatic story subject. However, because the distribution of this variable was not extremely skewed

(35% of the stories had a dramatic story subject and 65% had no dramatic story subject), the considerable size of the sample, and the robustness of the technique regarding violations of the normality assumption under such circumstances, no problems were expected with significance tests (at $p < .05$) using this procedure (cf. Lunney, 1970).

Competitive Pressure

As proposed in H1, it was expected that news stories in higher competitive markets would feature more arousing news characteristics than news stories in lower competitive markets. The main effect for competitive pressure was significant ($F(6,3016) = 48.53$; $p = .001$; $\eta^2 = .09$). Support for the hypothesis was found for each of the six arousing characteristics (see Table 3 for means and standard deviations). News stories in higher competitive markets included significantly more dramatic story subjects ($F(1,3021) = 50.04$; $p = .001$; $\eta^2 = .02$), dramatic pictures ($F(1,3021) = 20.63$; $p = .001$; $\eta^2 = .01$), camera shots ($F(1,3021) = 17.69$; $p = .001$; $\eta^2 = .01$), tabloid transitions ($F(1,3021) = 14.11$; $p = .001$; $\eta^2 = .01$), personalization ($F(1,3021) = 121.53$; $p = .001$; $\eta^2 = .04$), and layperson speaking ($F(1,3021) = 63.10$; $p = .001$; $\eta^2 = .02$).

Table 3 Arousing news characteristics in markets with varying degrees of competitive pressure

	Low Pressure Markets $M(SD)$	High Pressure Markets $M(SD)$
Dramatic story subject	.31 (.01)	.34 (.01)
Dramatic pictures	1.01 (.10)	1.44 (.09)
Camera shots	13.79 (.19)	14.37 (.17)
Tabloid transitions	.70 (.04)	1.16 (.04)
Personalization	.11 (.01)	.26 (.01)
Layperson speaking	.09 (.01)	.20 (.01)
	$N = 1364$	$N = 1664$

The first research question referred to a possible interaction between competitive pressure and culture. The multivariate test showed a significant interaction ($F(6,3016) = 55.91$; $p = .001$; $\eta^2 = .10$) between the two variables. Except for 'dramatic pictures', all the variables indicated that the differences between high and low competitive pressure within the Western European culture were of a different kind than those within the Chinese-dominated culture: 'dramatic story subject' ($F(1,3021) = 79.86$; $p = .001$; $\eta^2 = .03$), 'camera shots' ($F(1,3021) = 36.45$; $p = .001$; $\eta^2 = .01$), 'tabloid transitions' ($F(1,3021) = 120.22$; $p = .001$; $\eta^2 = .04$), 'personalization' ($F(1,3021) = 20.56$; $p = .001$; $\eta^2 = .01$), and 'layperson

speaking' ($F(1,3021) = 27.84; p = .001; \eta^2 = .01$). As the differences in means between low and high pressurized markets (see Table 4) indicate, it seems that on four characteristics ('dramatic story subject', 'tabloid transitions', 'personalization', and 'layperson speaking') the effect of competitive pressure is somewhat more positive in the Chinese-dominated culture compared to the Western European culture.

Table 4 Arousing news characteristics in Western European and Chinese-dominated markets with varying degrees of competitive pressure

	Western European markets		Chinese-dominated markets	
	Low Pressure <i>M (SD)</i>	High Pressure <i>M (SD)</i>	Low Pressure <i>M (SD)</i>	High Pressure <i>M (SD)</i>
Dramatic story subject	.45 (.01)	.41 (.02)	.03 (.03)	.28 (.02)
Dramatic pictures	1.32 (.12)	1.87 (.13)	.40 (.20)	1.01 (.13)
Camera shots	11.38 (.21)	14.38 (.23)	18.62 (.37)	14.36 (.24)
Tabloid transitions	1.72 (.05)	.92 (.05)	.03 (.08)	.49 (.05)
Personalization	.10 (.02)	.23 (.02)	.12 (.03)	.29 (.02)
Layperson speaking	.13 (.02)	.18 (.02)	.01 (.03)	.22 (.02)
	<i>N</i> = 1027	<i>N</i> = 869	<i>N</i> = 337	<i>N</i> = 795

To obtain a more detailed test of the effects competitive pressure may have within the two cultures, contrast analyses were performed. Results showed that within the Chinese-dominated culture, competitive pressure had a positive effect for five out of six arousing news characteristics. News stories from Chinese-dominated high-pressure markets contained significantly more dramatic story subjects ($F(1,3021) = 68.49; p = .001; \eta^2 = .02$), dramatic pictures ($F(1,3021) = 6.33; p = .012; \eta^2 = .00$), tabloid transitions ($F(1,3021) = 22.91; p = .001; \eta^2 = .01$), personalization ($F(1,3021) = 32.24; p = .001; \eta^2 = .01$), and layperson speaking ($F(1,3021) = 40.49; p = .001; \eta^2 = .01$) compared to news stories at low-pressure markets. Only for camera shots, the opposite was found. News stories from low-pressure markets featured more camera shots than stories in high-pressure markets ($F(1,3021) = 93.44; p = .001; \eta^2 = .03$). Within the Western European market, a positive effect of competitive pressure was found for the variables 'dramatic pictures' ($F(1,3021) = 10.36; p = .001; \eta^2 = .00$), 'camera shots' ($F(1,3021) = 91.59; p = .001; \eta^2 = .03$), 'personalization' ($F(1,3021) = 34.42; p = .001; \eta^2 = .01$), and 'layperson speaking' ($F(1,3021) = 4.73; p = .03; \eta^2 = .00$). However, 'tabloid transitions' ($F(1,3021) = 137.67; p = .001; \eta^2 = .04$) were more included in news stories from markets with a low level of pressure. Regarding 'dramatic story subject' no effect of competitive pressure was found within the Western European culture. All in all,

the contrast analyses revealed that the effect of competitive pressure was positive for the large majority of arousing news characteristics in both cultures.

Type of Station

According to H2, news stories from completely privatized stations would contain more arousing news characteristics than news stories from stations with a significant degree of government funding. A significant multivariate main effect of 'type of broadcaster' was found ($F(6,3016) = 25.51; p = .001; \eta^2 = .05$).

Table 5 Arousing news characteristics in stations with varying degrees of privatization

	Privatization: Low Degree <i>M (SD)</i>	Privatization: High Degree <i>M (SD)</i>
Dramatic story subject	.32 (.01)	.33 (.01)
Dramatic pictures	1.22 (.09)	1.30 (.10)
Camera shots	14.93 (.17)	13.04 (.19)
Tabloid transitions	.63 (.04)	1.25 (.04)
Personalization	.22 (.01)	.16 (.01)
Layperson speaking	.16 (.01)	.14 (.01)
	<i>N</i> = 1662	<i>N</i> = 1366

As the means in Table 5 showed, the expected effects were found on the characteristics 'dramatic story subject' ($F(1,3021) = 34.20; p = .001; \eta^2 = .01$), and 'tabloid transitions' ($F(1,3021) = 26.20; p = .001; \eta^2 = .01$). However, on three arousing news characteristics, an effect opposite to the expectation was found. News stories from stations that were low on privatization contained more camera shots ($F(1,3021) = 20.67; p = .001; \eta^2 = .01$), more personalization ($F(1,3021) = 39.17; p = .001; \eta^2 = .01$) and more laypersons speaking ($F(1,3021) = 17.05; p = .001; \eta^2 = .01$). There was no significant interaction for the variable 'dramatic pictures'.

To answer the second research question of whether privatization of a news program would have similar effects on arousing news characteristics in Western European and Chinese-dominated cultures, interactions between the variables 'type of station' and 'culture' were estimated. Again, a significant multivariate effect was found ($F(6,3016) = 50.12; p = .001; \eta^2 = .09$). On five of the characteristics, the completely private character of a station did not have similar effects in the Western European culture and the Chinese-dominated culture (see Table 6). The variables 'dramatic story subject' ($F(1,3021) = 42.47;$

$p = .001$; $\eta^2 = .01$), 'camera shots' ($F(1,3021) = 98.38$; $p = .001$; $\eta^2 = .03$), 'tabloid transitions' ($F(1,3021) = 43.55$; $p = .001$; $\eta^2 = .01$), 'personalization' ($F(1,3021) = 63.63$; $p = .001$; $\eta^2 = .02$), and 'layperson speaking' ($F(1,3021) = 36.96$; $p = .001$; $\eta^2 = .01$), revealed different effects in the Western European and Chinese-dominated culture.

Table 6 Arousing news characteristics in Western European and Chinese-dominated stations with varying degrees of privatization

	Western European Stations		Chinese-dominated Stations	
	Privatization: Low Degree <i>M (SD)</i>	Privatization: High Degree <i>M (SD)</i>	Privatization: Low Degree <i>M (SD)</i>	Privatization: High Degree <i>M (SD)</i>
Dramatic story subject	.42 (.02)	.44 (.02)	.23 (.02)	.12 (.02)
Dramatic pictures	1.58 (.12)	1.60 (.12)	.87 (.14)	.69 (.19)
Camera shots	12.28 (.23)	13.48 (.22)	17.59 (.25)	12.16 (.35)
Tabloid transitions	1.01 (.05)	1.63 (.05)	.25 (.05)	.49 (.08)
Personalization	.15 (.02)	.18 (.02)	.29 (.02)	.12 (.02)
Layperson speaking	.13 (.02)	.18 (.02)	.19 (.02)	.07 (.03)
	<i>N = 909</i>	<i>N = 987</i>	<i>N = 753</i>	<i>N = 379</i>

To get more insight into the nature of the effects privatization may have within the two cultures, contrast analyses were performed. These analyses showed that the effect of privatization was positive in the Western European culture for 'camera shots' ($F(1,3021) = 14.67$; $p = .001$; $\eta^2 = .01$), 'tabloid transitions' ($F(1,3021) = 82.21$; $p = .001$; $\eta^2 = .03$), and 'layperson speaking' ($F(1,3021) = 3.86$; $p = .05$; $\eta^2 = .01$). The results for the variables 'dramatic story subject', 'dramatic pictures', and 'personalization' were not significant. Based on these results, it may be concluded that the effect of privatization is slightly positive in the Western European culture. For the Chinese-dominated culture, a negative effect of privatization was found for 'dramatic story subjects' ($F(1,3021) = 13.87$; $p = .001$; $\eta^2 = .01$), 'camera shots' ($F(1,3021) = 160.79$; $p = .001$; $\eta^2 = .05$), 'personalization' ($F(1,3021) = 33.96$; $p = .001$; $\eta^2 = .01$), and 'layperson speaking' ($F(1,3021) = 14.94$; $p = .001$; $\eta^2 = .01$). Only for 'tabloid transitions' ($F(1,3021) = 6.28$; $p = .012$; $\eta^2 = .00$) it was found that news stories of stations with a high degree of privatization contained more of this arousing news characteristic. No effect of privatization was observed for 'dramatic pictures' within the Chinese-dominated culture. In general, the results of privatization are positive or non-significant in the Western European culture, while a negative effect was found for most of the arousing news characteristics in the Chinese-dominated culture.

Review of Results

This study showed that competitive pressure in television news markets has a positive effect on the presence of arousing news characteristics. This effect was found within the Western European markets as well as within the Chinese-dominated markets (H1). The generally positive effect of competitive pressure tends to be somewhat more positive in the Chinese-dominated culture than it is in the Western European culture (RQ1). The idea that completely private news stations featured more arousing news could not be supported unequivocally (H2). In the Western European culture, privatization had positive or zero effects on the presence of arousing news characteristics. However, in the Chinese-dominated culture, privatization mostly had a negative effect (RQ2).

Discussion

Several longitudinal studies that were conducted within the US and a number of Western European news markets have demonstrated a positive correlation between competitive pressure and a growing presence of arousing television news (cf. Hendriks Vettehen et al., 2005; Hjarvard, 2000; Hofstetter & Dozier, 1986; Hvitfelt, 1994; Slattery et al., 2001; Slattery & Hakanen, 1994). However, a major limitation of these studies was that each study was conducted within a particular market. As a result, none of the studies could eliminate the role of concurrent changes within the market that might also influence arousing news, for instance technological changes, changes in the public's tastes and values, or changes in journalistic ideas, norms, and practices. A major contribution of the present study is that it accounts for cultural differences in establishing a correlation between the degree of competitive pressure in the market and the presence of arousing news. Regarding technological factors that may influence the presence of arousing news characteristics, it may be assumed that at the time of the data collection (2007), digital data transmission and editing techniques were more or less equally available in each of these markets. However, in making the distinction between Western European and Chinese-dominated cultures, cultural differences such as the public's tastes and values, and the journalistic norms and practices were largely controlled in the present study. The fact that we did find a correlation between competitive pressure in markets and the presence of arousing news characteristics gives credence to the suggestion from earlier studies that competitive pressure promotes arousing news.

The finding that the expected positive impact of competitive pressure on arousing news was more pronounced in the Chinese-dominated culture is somewhat remarkable. Drawing on the theoretical distinction between the more individualistic Western European culture and the more collectivistic Chinese-dominated culture, we anticipated that producers in a collectivistic culture would tend to perceive themselves as members of a larger society, and that for this reason they would be less sensitive to pressures from

the station. Hence, if we would find different effects of competitive pressure between the two cultures at all, the effect within the Chinese-dominated culture would be smaller.

One explanation for the somewhat larger impact of competitive pressure in the Chinese-dominated culture might be that, within this culture, the firm may also count as a collective. If producers in collectivistic culture perceive themselves as employees of the station, they can be expected to be more sensitive to pressures from the station, which would explain the study finding, and which was demonstrated in group identification psychology depending on the salience of the group (Kelly & Kelly, 1994).

An alternative explanation for the larger impact of competitive pressure in the Chinese-dominated culture may start from the observation that the sample did not include stories from the type 'Chinese-dominated culture, low competitive pressure, commercial station'. As a result, the estimated interaction between the variables 'competitive pressure' and 'culture' was only based on public service news stories. This means that the effect of competitive pressure on the Chinese-dominated markets was merely based on a comparison of the public service news stories from Mainland China and Taiwan. However, from all markets studied, the competitive pressure regarding flagship news programs probably was the lowest in Mainland China (with a single flagship news program), while it was the highest in Taiwan (with five flagship news programs). Accordingly, the variation in competitive pressure was a bit larger in the Chinese-dominated culture markets than it was in the Western European markets, which might explain the somewhat more positive effect of competitive pressure that was found.

The finding that, in the Western European culture, news stories from fully privatized stations featured more arousing characteristics than the stories by their public service counterparts was in line with findings from earlier studies (Hendriks Vettehen et al., 2005; Hjarvard, 2000; Hvitfelt, 1994). However, the finding that, in the Chinese-dominated culture, news stories from fully privatized stations featured less arousing characteristics than news stories from stations that were low on privatization, were both new and unexpected. From a theoretical viewpoint, it is difficult to conceive why fully privatized stations would feature less arousing characteristics than (semi)public stations. However, again it should be noted that the sample did not include stories from the type 'Chinese-dominated culture, low competitive pressure, commercial station'. As a result, the estimated interaction between the variables 'type of station' and 'culture' was only based on the high competitive pressure stories. This means that the difference between stations on the Chinese-dominated markets was based on a comparison between one Taiwanese station that was low on privatization and two stations from Taiwan and Hong Kong that were high on privatization. Moreover, as already stated in the Method section of this paper, the Taiwanese station TTV that was assigned to the 'low degree of privatization' category, was at the time of the data collection, in the transition phase towards a completely privately owned station. An *ex post facto* explanation of the unexpected findings regarding the type of station variable in the Chinese-dominated culture may be that TTV's news editors'

and reporters' anticipatory behavior in this transition phase has been more competitive and profit driven. If that were the case, the TTV data thus would have affected the results, explaining why in the Chinese-dominated culture, fewer arousing characteristics were found in the completely privately owned stations' news stories.

The most important limitation of the current study is that only six public service news stations and six commercial news stations were available for the comparison at the news station level. Moreover, the categories of competitive pressure consisted of three to four markets, and three to four markets per culture were analyzed. Finally, as already mentioned no stories were included from the type 'Chinese-dominated culture, low competitive pressure, commercial station'. For these reasons, a news routine specific to one particular country, or even a particular editorial staff, may have had a substantial impact on the findings.

Another consequence of the limited number of markets and stations is that the categories of our independent variables were necessarily crude. For instance, the category 'low competitive pressure' included Flanders, French-speaking Belgium, and Mainland China. The Chinese market is less competitive than the markets of these two small European markets, and this difference should be taken into account in the interpretations of the findings, as our discussion of the larger impact of competitive pressure in Chinese-dominated markets showed. Also, cultural differences may be expected within both the Western European culture (cf. Hallin & Mancini, 2004) and within the Chinese-dominated culture (Hu, 2009). Still, the differences between collectivistic and individualistic cultures are considerable, which justifies our distinction between Western European and Chinese-dominated culture.

A final consequence of the limited number of markets and stations is that, although the theoretical model was clearly a multilevel model, the hypotheses were only tested at one level. However, differences between cultures do not explain variations within markets, and differences between markets do not explain variation within news stations. As a consequence, fairly low effect sizes were found (between $\eta^2 = .01$ and $\eta^2 = .10$). Future studies on this subject might want to increase the number of cases and news programs substantially. It should be noted that this requires an enormous quantity of detailed content analyses, which are both laborious and time consuming. However, such an undertaking would enable the application of multilevel modeling, a technique that is well-suited to deal with the multilevel character of the factors at stake. If combined, a large number of cases and the application of multilevel techniques may provide more definite insight into the factors explaining arousing features in television news.

Part III

Consequences of Arousing Television News



Chapter 4

The Influence of Age and Gender on Preferences for Negative Content and Tabloid Packaging in Television News Stories¹

This study aimed at answering the question whether preferences for negative content and a tabloid production style in television news stories vary with different age groups and gender. An experiment with 288 participants was conducted. As expected, results showed that age and gender moderated the influence of negative content and tabloid packaging on the viewers' preferences. Compared with middle-aged and older viewers, young viewers had a stronger preference for negative content rather than neutral content. Preferences for tabloid packaging rather than standard packaging were stronger for men than for women.

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The Influence of Age and Gender on Preferences for Negative Content and Tabloid Packaging in Television News Stories

Over the past years, news reporting has been criticized in both the United States (Gore, 2007; Jones, 2009) and a number of Western European countries (e.g., Blair, 2007). According to the critics, news reporting has become increasingly aimed at catching the viewer's attention, in particular by featuring more negative news and by applying a flashier production style. This criticism has mainly been investigated in the context of television news. Studies conducted in various countries have shown that over time television news stories have been displaying more negative content and that they have more often become packaged in a tabloid style (cf. Hendriks Vettehen, Nuijten, & Beentjes, 2005; Hjarvard, 2000; Hvitfelt, 1994; Slattery, Doremus, & Marcus, 2001; Slattery & Hakanen, 1994). This may, at least in part, be due to economic pressures from cable news and deregulation in especially the United States (cf. Bucy & Grabe, 2007; Hallin, 1992) and the entrance of commercial channels in Europe (cf. Hendriks Vettehen et al., 2005; Hjarvard, 2000; Hvitfelt, 1994).

A variety of questions concerning the changes in content and form of television news have been studied (for an overview, see Kleemans & Hendriks Vettehen, 2009), but one issue has received very little attention. This is whether negative content in news stories and the packaging of these stories in a tabloid style are suitable means to gain or to maintain the television viewer's favor, something that many news critics seem to assume. Answering this question is important for news producers as they want both frequent and potential viewers to choose their program over other news programs and to choose it again the next time. To reach this end, news producers might vary the amount of negative content and the number of tabloid features in their newscasts – if they knew it would work. Against this background, this study examines viewer preferences for content and form of television news stories. The term 'preferences' refers to the type of news content and form that viewers would watch if they had a choice.

In particular, this study asks whether preferences for negative content and tabloid packaging are different for viewers varying in age and gender. In the United States, competition between the national network news programs, local news programs, and cable news has led to a considerable degree of product differentiation, thus reflecting differences in interests and tastes between specific audiences (cf. Bae, 2000). Also, in Europe the emergence of local news programs and the emergence of news programs aiming at specific age categories illustrate that targeting specific viewer categories has become a strategy that many news programs apply. Against this background, an important question is how specific viewer categories respond to negative content and a tabloid style of news packaging. This study will focus on age and gender as possible moderators, as in the Dutch context where this research was conducted, especially young viewers and women are less frequent news viewers (Huysmans & De Haan, 2010).

Negative Content, Tabloid Packaging, and Viewer Preferences

As the label 'negative content' implies, the category comprises aspects of news content that have a negative valence. Examples include stories and pictures about crimes, violence, riots, fires, accidents, and disasters (cf. Hendriks Vettehen, Nuijten, & Peeters, 2008; Newhagen & Reeves, 1992; Reeves, Newhagen, Maibach, Basil, & Kurtz, 1991; Slattery & Hakanen, 1994). The label 'tabloid packaging' refers to aspects of the form of the news. Pacing (i.e., number of camera shots) is the most studied tabloid feature. Other examples of tabloid packaging features are sound effects, rapid point-of-view movement camera techniques, and decorative editing techniques such as wipes, fades, and dissolves (cf. Grabe, Lang, & Zhao, 2003; Grabe, Zhou, Lang, & Bolls, 2000; Hendriks Vettehen et al., 2008; Lang, Bolls, Potter, & Kawahara, 1999). The presence of some tabloid features may vary between countries. For instance, the obtrusiveness of the reporter's voice tone is a tabloid feature in U.S. broadcast news (cf. Grabe et al., 2003) that is virtually absent from newscasts in countries such as Germany and the Netherlands.

A number of studies have shown that negative content and tabloid packaging elicit attention and arousal responses in viewers (cf. Grabe, et al., 2000b, 2003; Hendriks Vettehen et al., 2008; Lang et al., 1999; Lang, Newhagen, & Reeves, 1996; Reeves et al., 1991). Studies have also reported that negative content and tabloid features are related to concepts with a more evaluative character such as liking and enjoyment (cf. Hendriks Vettehen et al., 2008; Kamhawi & Grabe, 2008). From these studies, one might be tempted to conclude that negative content and tabloid packaging are well-suited means to gain or to maintain the viewer's favor. However, such a conclusion would be premature. Although attention, arousal, liking, and enjoyment may be related to preferences, they are conceptually different. The concepts of attention and arousal refer to viewer responses while watching a story (cf. Lang, 1990), and the concepts of liking and enjoyment refer to viewer evaluations of the story or viewing experience (cf. Nabi & Krcmar, 2004). In contrast, viewing preferences refers to the viewer's choice behavior, analogous to the conceptualization of preferences in theories of decision making (for instance prospect theory, cf. Kahneman & Tversky, 1979). Therefore, answering the question whether negative content in news stories and the packaging of these stories in a tabloid style are suitable means to gain or to maintain the television viewer's favor involves a study of preferences.

Age-related Preferences for Negative Content and Tabloid Packaging

Over the past few years, some European countries have witnessed the rise of news programs that specifically aim at young viewers. In Flanders (the Dutch speaking part of Belgium), two news programs, *Zoom* and *Jam*, are aimed at adolescents (Vandebosch, Dhoest, & van den Bulck, 2009). In the Netherlands, the news program *Journal op 3* is targeted at young adults (NOS, 2007). These programs have emerged in response to the

lowered interest in traditional news among young people. They illustrate a belief among journalists that young people have different news preferences compared with older people.

A study by Gauntlett and Hill (1999) provides some support for this belief. Gauntlett and Hill characterized the top 10 of programs for adults aged 55 and over as sharing a kind of gentleness. These programs did not tend to feature large amounts of violence, sex, or bad language, and they often had light, pleasant, nostalgic, and middle-class themes. More specifically regarding news programs, a study by The Pew Research Center for the People & the Press (2008) showed that news about crimes drew more interest among people below 50 than among people above 50 years of age. In line with this, Klein (2003) found that senior citizens who were well in their 70s were less likely than middle school, high school, and college students to report that they watched the news because of their interest in stories with violent content. Furthermore, the seniors were more likely to report that they turned off the news because of violent content.

The Gauntlett and Hill (1999) finding suggests that older viewers generally prefer positive content over negative content. However, the two studies regarding news preferences (Klein, 2003; The Pew Research Center for the People & the Press, 2008) merely showed that older viewers experience problems with content that is morally objective (i.e., violence and crime) and that consequently might evoke fear, anger, and disgust. They do not tell whether older viewers also tend to avoid other examples of negative news content (e.g., accidents, natural disasters), which may also evoke somewhat different emotions. Still, together the studies provide good reasons to expect the following:

H1: Young people have a stronger preference for negative content over neutral content than older people

The European news programs that specifically aim at young viewers distinguish themselves from regular news programs not only in content, but also regarding its form. To attract young viewers, news is packaged in a flashy, attractive, and contemporary fashion that is stylistically different from the adult news (cf. NOS, 2007; Vandebosch et al., 2009).

Theoretical support for these news programs' strategies is offered by the activation model of information exposure (Donohew, Lorch, & Palmgreen, 1998; Donohew, Palmgreen, & Duncan, 1980) and, in particular, by those elements of the theory that are based on Zuckerman's sensation-seeking theory (Zuckerman, 1994). According to the activation model, media consumers generally prefer a level of stimulation that provides them with a level of arousal that makes them feel comfortable. However, individuals differ in their need for arousal. In contrast to people low in need for arousal (the so-called low sensation seekers), people high in need for arousal (high sensation seekers) seek varied, novel, complex, and intense sensations and experiences and have the willingness to take risks for the sake of such experiences. Sensation seeking has been shown to peak in adolescence

and to decline with age thereafter (Zuckerman, 1994; Zuckerman, Eysenck, & Eysenck, 1978), suggesting that younger viewers have higher needs for arousal. According to the activation model, structural features in media messages (i.e., fast action, novelty, and stimulus intensity) provide arousal. Moreover, structural features in news stories have been shown to generate arousal (cf. Grabe et al., 2000b, 2003; Lang et al., 1999). Consequently, it may be expected that younger viewers feel more attracted to the structural features that are included in tabloid-packaged news stories.

Two recent studies provide mixed support for the argument that younger viewers are attracted to a flashy style in news reporting. An online survey focusing on Flemish adolescent newscasts showed that young viewers (10 to 18 years) considered the form of these newscasts appropriate for a newscast aimed at young people (Vandebosch et al., 2009). In addition, a study by Lang et al. (2005) showed that young adults (18 to 22 years) had more positive evaluations for fast-paced news stories compared with slow-paced news stories irrespective of the story length, whereas older participants (25 to 81 years) had more positive evaluations for fast production only when the stories were long. However, both findings only concerned evaluations of flashy news reporting that at best may be considered predictors of preferences. Moreover, the Lang et al. (2005) study also featured a measure of preference itself: the time participants spent with a news story before switching to another channel. Remarkably, fast pacing did not increase the younger viewers' time spent with the news stories.

To summarize, available evidence is inconclusive regarding tabloid packaging as a means to attract younger viewers. However, since theory suggests that tabloid packaging may help to attract younger viewers, the following is expected:

H2: Younger people have a stronger preference for tabloid-packaged news stories over standard-packaged news stories than older people

Gender-related Preferences for Negative Content and Tabloid Packaging

A number of studies have shown that women react differently to negative news than men do. Slone (2000) and Klein (2003) noted that women reported greater anxiety and worry in response to negative news stories than men. Also, Kamhawi and Grabe (2008) found that women reported greater enjoyment of positively framed news than negatively framed news and that the enjoyment for positive stories was greater compared with men. Men, in contrast, reported greater enjoyment of negatively framed news compared with positively framed news, and they enjoyed these negative stories more than women. Moreover, in a previous study, Grabe and Kamhawi (2006) showed that men reported higher arousal for negatively than for positively framed news, whereas for women, the opposite held true. For positive news, men rated the arousal elicited by these stories lower compared with women. However, women were more aroused by the negative stories than men were. Recognition memory and comprehension scores showed that men had

better scores on negatively than on positively framed news, and women had better scores on positively than on negatively framed news. Men's recognition memory and comprehension was better for negative news when compared with women, whereas women's comprehension scores for positive news were higher compared with men. Kamhawi and Grabe explained their findings by assuming that women's nurturing role compared with men's protective function induces women to avoid negative stimuli, whereas men tend to approach negative stimuli.

None of these studies included a measure of preference. However, their findings show that compared with women, men experience less anxiety but more arousal and enjoyment while watching negative news stories. Moreover, they also appear to have less problems with processing negative news. Together, these findings provide reasons to expect the following:

H3: Men have a stronger preference for negative content over neutral content than women

In this study, tabloid packaging is suggested to attract especially men. Studies on sensation seeking have shown that men are higher sensation seekers compared with women (cf. Joinson & Nettle, 2005; Zuckerman et al., 1978). Following the activation model, this implies that men have a higher need for arousal, which may be provided by tabloid packaging features in news stories (cf. Donohew et al., 1980, 1998).

As far as we have been able to ascertain, there has been no empirical research on gendered responses to form characteristics in television news stories. However, one study that included a variety of other television genres (i.e., sports, documentary, and drama) provides some clues as to the responses. Lombard, Reich, Grabe, Bracken, and Ditton (2000) found that men enjoyed the sense of movement in scenes more than women. In their study, the latter was simulated by featuring rapid point-of-view movements in scenes, including riding a roller coaster, driving an all-terrain vehicle, and flying a fighter jet. As a rapid point-of-view movement is a tabloid feature, the findings from the study support the idea that tabloid features attract men more than women. This leads to the following expectation:

H4: Men have a stronger preference for tabloid-packaged news stories over standard-packaged news stories than women

Method

Design

An experiment was conducted, using a 2 (content) × 2 (form) × 4 (group) × 3 (age) × 2 (gender) mixed design. Content was a within-subjects factor and had two levels: neutral and negative. Form was also a within-subjects factor with two levels: standard and tabloid. Group was a between-subjects factor and represents the four groups of newscasts that were used as stimulus materials in the experiment. Age (young, middle, and old) and gender (male and female) were also between-subjects factors.

Table 1 Main topic of the 16 news stories

Neutral Content		Negative Content	
Standard Packaging	Tabloid Packaging	Standard Packaging	Tabloid Packaging
Economy - Increase goods traffic Port of Rotterdam	Nature - Mosquitoes on Dutch Island	Fire- Fire in a house	Accident - Accident during Tibet demonstration
Nature - Buffaloes in Dutch national parks	Economy- Economic situation in the Netherlands	Crime- Pupil murdered at school	Riots - Riots at the turn of the year
Environment -Destruction of unused domestic appliances	Culture - 40 years public transport by metro	Accident- Explosion in café	Crime- Dutch criminal accused of being involved in liquidations
Culture - Hundred buildings registered as national monuments	Environment -Transport of ammonia by train prohibited in densely populated areas	Riots- Riots during high school demonstration	Fire- Fire in a museum

Note. The stories that were merged into the same group are presented on the same row.

According to this design, four groups of news stories were created. Each of these groups consisted of four news stories: one for each possible combination of the two types of content and the two types of form. Each participant watched the news stories of one group, that is, four different types of news stories (see Table 1). Four news stories may be presented in 24 different orders. To account for order effects, each group of stories was

watched by exactly 24 participants within each age category. As four groups of stories were constructed, 96 participants were recruited for each of the three age categories, resulting in a total of 288 participants. Male and female participants were divided almost equally over the different groups of news stories².

Stimulus Materials

Sixteen news stories were selected as stimulus materials. The stories had been broadcast between September 2007 and March 2008 in the evening news program *NOS Journaal*, which is the most popular television news program in the Netherlands (Costera Meijer, 2007). Stories were selected from a single news program to minimize the variance due to television channels or programs (cf. Leshner, Reeves, & Nass, 1998). The selection process of the stimulus materials involved four steps.

In the first step, news stories that were broadcast in the selected period were content analyzed by one of the researchers and a number of students (cf. Hendriks Vettehen, d’Haenens, & Kleemans, 2009). The intercoder reliability of the variables was estimated using Krippendorff’s alpha (α). Regarding the content of the news stories, coders coded the presence of a negative topic (e.g., violence, fire, accident, crime, or riots; α = .78) in the news story. Moreover, the number of camera shots including negative pictures (e.g., pictures of a fire, blood, or accident; α = .91) was counted. Related to the form of the news stories, the number of camera shots per minute (α = .97), music onsets per minute (α = .82), and the number of wipes (α = .65), dissolves (α = .60) and fades (α = 1.00) per minute were counted. The reliability of most variables was well above the .67 criterion for acceptable reliability, and even above the .80 criterion for good reliability (Krippendorff, 2004). Two exceptions concern the variables wipes and dissolves whose reliability was slightly below the .67 criterion. However, these relatively low scores may be explained by the skewed distribution of the indicators in combination with the relatively small reliability sample. Out of the pool of content-analyzed news stories, only those stories were selected that included either a negative story topic and negative pictures or no negative story topic and pictures. In addition, we selected those stories that included either a very small or a very large number of tabloid features. The rationale behind this selection was that we aimed to maximize the difference between the two types of content and the two types of form in the stimulus materials.

In the second step, the number of potentially useful news stories for the experiment was reduced by applying additional criteria to the remaining pool of news stories. In particular, only those stories were selected that (a) contained local news events, (b) had little variation in story duration, measured in seconds ($M = 95.31$, $SD = 10.78$), (c) did not

² Distribution of male and female participants by group:
Group 1: 33 males, 39 females Group 2: 32 males, 40 females
Group 3: 38 males, 34 females Group 4: 37 males, 35 females

include a positive topic, (d) did not include an extremely controversial topic, (e) had not received extraordinary media attention, and (f) did not contain production errors or a slip of the tongue by the reporter. Finally (g), no topics were selected that might be particularly relevant to the participants. For instance, all participants in this study came from the southeastern part of the Netherlands. We included only stories that contained events that took place in other parts of the country. At the end of the second step, we selected 16 stories (four in each combination of content and form) that met all the criteria as described and that could be matched pairwise based on the story topic. For instance, a standard-packaged negative story about a fire in a house was matched with a tabloid-packaged negative story about a fire in a museum. The same was done for the topics of the neutral news story categories (see Table 1).

To enlarge the differences between the two types of content and the two types of form in the stimulus material, a few of the stories were edited in the third step. Some sound effects (e.g., the sound of sirens) were included in the tabloid stories and we added or excluded some camera shots. As a result, the number of camera shots per minute for standard stories ($M = 7.79$; $SD = 0.56$) differed significantly, $t(7) = 10.73$, $p = .001$, from the number of camera shots in tabloid stories ($M = 14.08$; $SD = 1.26$). Moreover, potential effects resulting from the variety of anchormen and women were eliminated. This was accomplished by replacing the anchorman's introduction to the news story by a screen with a short, written introduction to the news story.

In the final step, a pilot study was conducted on 51 participants, varying in age and gender. The aim of the pilot was to test the expected negative and neutral valence of the content of the news stories. Participants were asked to rate the valence of the news stories on a scale ranging from 1 (negative) to 7 (positive). The mean scores for the neutral stories ($M = 4.41$; $SD = 0.95$) and negative stories ($M = 2.85$; $SD = 0.81$), and the significant difference between them, $F(1,14) = 12.27$; $p = .004$; $\eta^2 = .47$, indicated that the news stories were correctly assigned to the neutral and the negative content categories.

Participants

The 288 participants were recruited by letter, email, or personal contact. All had a high level of education. To motivate people to participate, a number of gift coupons were raffled among the participants. To represent young viewers, 96 students from a university in the Netherlands were asked to participate in the experiment. The mean age of the young participants was 21.70 ($SD = 2.05$), with a range of 18 to 26 years. Of these, 68 were female and 28 male. To represent the middle-aged people, academic employees of the same university were asked to participate. The mean age of the middle-aged participants was 41.91 ($SD = 4.85$), with a range of 30 to 50 years. Of these, 56 were male and 40 were female. The oldest participants, with an age range of 60 to 89 years, were 96 former academic employees of the university or other highly educated elderly people. The mean age of the oldest participants was 68.82 ($SD = 6.98$), 56 were male and 40 were female.

Dependent Variables

To measure preferences, two measures were used to indicate the type of news content and form participants would watch if they had a choice: staying tuned and choosing. We decided to include two indicators instead of one to improve the reliability of the study findings.

Staying tuned. Participants were asked to indicate the probability in percentages that they would switch to another channel, if they were given the opportunity. As this measure is a negative indicator of preference, the likelihood to zap in percentages was subtracted from 100%. This resulted in the creation of a positive indicator of preference: 'staying tuned' ($M = 74.28$; $SD = 28.19$).

Choosing. After seeing the four stories, the introductory frames of two of the stories were shown and the participants were asked to imagine that they could watch one of these two stories again. The question was to pick out the story of their preference. Participants had to make this choice six times, that is, for all six pairs that could be created out of four stories. To construct a measure, it was calculated how many times a participant chose each story. The possible scores on each story ranged from 0 (never chose this story) to 3 (always chose this story).

Procedure

The experiment was held from November 2009 to February 2010. Participants took part in the experiment individually. Most of them came to a room at the university, which was equipped with a laptop on a desk and an office chair. Participants who were unable to come to the experimental room were visited at home or at their work place. Each participant watched the news stories on a 15.4 inch screen. Sound volume, distance to the screen (about 24 inches), and viewing angle were the same for each participant, except for a few elderly participants who had difficulties with seeing or hearing. For them, minor accommodations were made. A short introduction to the experiment was given by the researcher. Participants were asked to watch four different news stories as they would do at home and to answer a few questions after each story. Participants first had to answer a few general questions, for instance about their age and gender. Next, the first story was started. After watching the story, participants had to answer the question regarding the probability of switching to another channel (the 'staying tuned' measure). In addition, they had to answer a few more questions concerning their emotional response to the story and their evaluation of the story (e.g., credibility), before the next story was started. This procedure was repeated until the end of the fourth news story. The questions related to the stories were the same for each story. At the end of the experiment, the questions that were used for the construction of the choosing variable were asked.

Results

For each dependent variable, a full factorial 2 (content) \times 2 (form) \times 3 (age) \times 2 (gender) repeated measures multivariate analysis of variance (MANOVA) was carried out with content (negative and neutral) and form (standard and tabloid) as within-subject factors and age (young, middle, old) and gender (male and female) as between-subject factors. The group variable was excluded from the analysis, because a comparison of the F tests of all main and interaction effects between the model including the group variable and the model without the group variable showed that including the group variable did not substantially alter the effects of the other variables in the model. In other words, there is no reason to assume that the group variable influenced the results as presented here.

Staying Tuned

First, a main effect for content was found, $F(1,282) = 40.89$; $p = .001$, $\eta^2 = .13$. In general, viewers indicated the likelihood to stay tuned higher in case of negative content compared with neutral content. Second, a main effect for age was found ($F(2,282) = 16.42$; $p = .001$, $\eta^2 = .10$), indicating that viewers tend to stay tuned more often as they were older. Third, an interaction between age and content was observed, $F(2,282) = 6.98$; $p = .001$, $\eta^2 = .05$, suggesting that compared with older viewers, the younger viewers indicated to stay tuned more often to negative content than to neutral content. To compare the three age groups regarding the impact of negative content on the likelihood to stay tuned, contrast analyses with Bonferroni adjustments were carried out. The analyses showed that negative content had a more positive impact on young viewers ($M_{negative} = 76.07$, $SD = 2.29$; $M_{neutral} = 58.88$, $SD = 2.59$) than it had on old viewers ($M_{negative} = 85.25$, $SD = 2.11$; $M_{neutral} = 80.97$, $SD = 2.39$). This difference in impact reached significance ($F(1,282) = 12.58$; $p = .001$). Negative content also had a more positive impact on young viewers than it had on middle-aged viewers ($M_{negative} = 76.72$, $SD = 2.11$; $M_{neutral} = 70.09$, $SD = 2.39$). Again, this difference in impact was significant, $F(1,282) = 8.42$; $p = .012$. Old and middle-aged viewers failed to differ as to the impact of negative content, $F(1,282) = .45$; $p = 1.00$. In sum, younger viewers were more likely to stay tuned for negative content rather than neutral content when compared with middle-aged and old viewers.

The interaction between age and form did not reach significance, which indicated that there was no difference between viewers of different ages in the likelihood to stay tuned because of the form of news stories.

For gender, no interaction with the content of the news story was observed, implying that the likelihood to stay tuned in case of negative content and neutral content was not different for men and women. However, an interaction between gender and form was observed, $F(1,282) = 5.59$; $p = .019$, $\eta^2 = .02$. As shown in Figure 2, men were more likely to stay tuned in case of tabloid-packaged stories ($M_{standard} = 74.89$, $SD = 1.90$; $M_{tabloid} = 77.22$, $SD = 1.89$) than women ($M_{standard} = 75.29$, $SD = 1.80$; $M_{tabloid} = 71.26$, $SD = 1.80$).

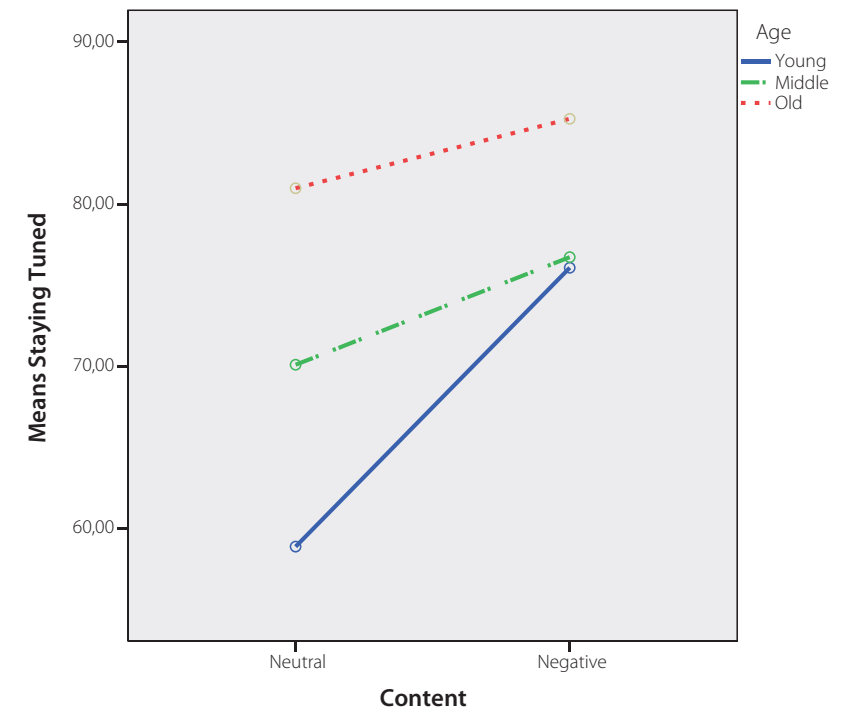


Figure 1 Interaction between content and age for staying tuned

Choosing

Because of the nature of the choosing variable, no main effects of age and gender were calculated. All participants, whatever their age or gender, made six choices. This implies that there is no variation between age and gender in the number of decisions. However, interaction effects can be calculated because it is possible, and expected, that participants differ in the decisions they made.

The interaction between age and content, $F(2,282) = 14.54$; $p = .001$, $\eta^2 = .09$, showed that younger viewers were more likely to choose negative content rather than neutral content. In particular, negative content had a positive impact on young viewers ($M_{negative} = 1.85$, $SD = .07$; $M_{neutral} = 1.15$, $SD = .07$), but a negative impact on middle-aged viewers ($M_{negative} = 1.46$, $SD = .07$; $M_{neutral} = 1.54$, $SD = .07$). This difference reached significance, $F(1,282) = 16.16$; $p = .001$. The youngest viewers were also more likely to choose for negative content, whereas the oldest viewers were more likely to choose for neutral content ($M_{negative} = 1.35$, $SD = .07$; $M_{neutral} = 1.65$, $SD = .07$). This difference was also significant ($F(1,282)$

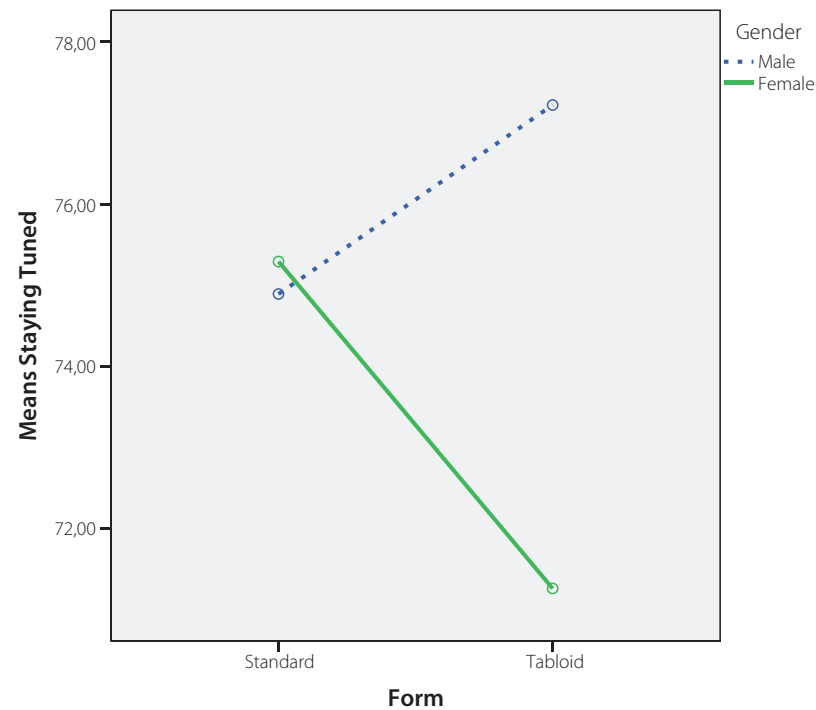


Figure 2 Interaction between form and gender for staying tuned

$= 27.01; p = .001$). Old and middle-aged viewers did not significantly differ as to their choice for negative and neutral content ($F(1,282) = 1.51; p = .660$). In sum, young viewers were more likely to prefer negative content rather than neutral content, when compared with middle-aged and old viewers.

The interaction between age and form was not significant. This means that viewers of different ages did not differ in their choice for a particular form of the stories. However, a weak but unpredicted interaction between age, content, and form was found ($F(2,282) = 3.53; p = .031, \eta^2 = .02$). To young viewers, form was only important in case of neutral content: they chose tabloid more than standard packaging. Among middle-aged viewers, tabloid packaging was chosen above standard packaging. For old viewers, it was found that they chose combinations of standard-packaged neutral stories and tabloid-packaged negative stories.

Similar to the findings on the 'staying tuned' measure, no significant interaction between gender and content was found. However, the interaction between gender and form again turned out to be significant ($F(1,282) = 9.25; p = .003, \eta^2 = .03$, see Figure 4). Men

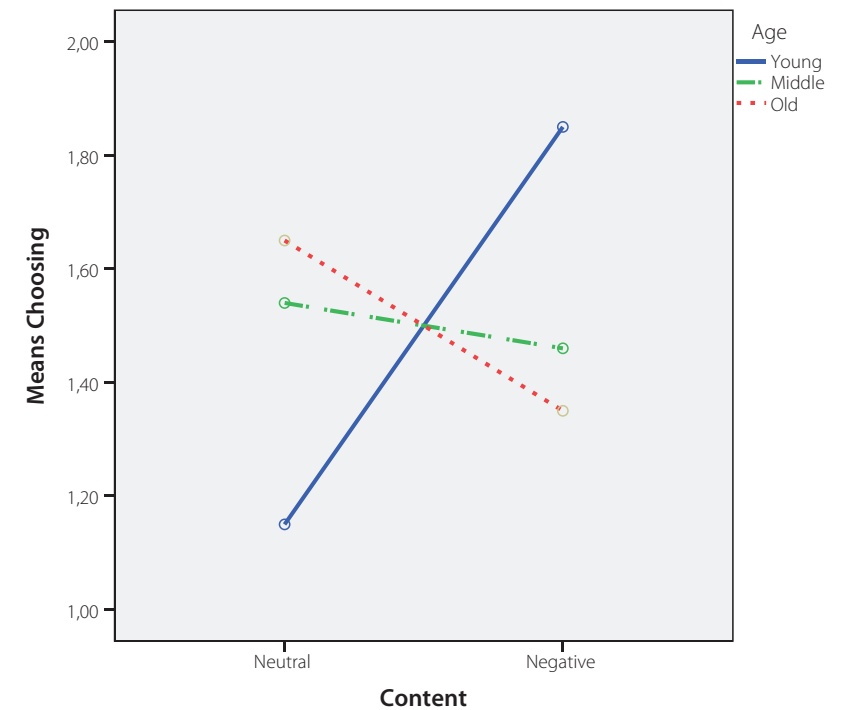


Figure 3 Interaction between content and age for choosing

were more likely to choose for tabloid packaging ($M_{\text{standard}} = 1.38, SD = .05; M_{\text{tabloid}} = 1.63, SD = .05$) than women ($M_{\text{standard}} = 1.58, SD = .05; M_{\text{tabloid}} = 1.42, SD = .05$).

Evaluating the Hypotheses

To evaluate the hypotheses, the results of the staying tuned and choosing variables were compared. The results for both staying tuned and choosing appeared to be fairly similar, with the sole exception that for choosing, a weak three-way interaction between age, content, and form was found. Leaving this interaction out of consideration, results for age showed that younger viewers had a stronger preference for negative content over neutral content, when compared with middle-aged and old viewers. This provides support to the first hypothesis, although only a difference between the youngest age group and the two older age groups was observed. No differences in preference for tabloid packaging between the age groups were found, implying that the second hypothesis has to be rejected. Regarding gender differences, no differences between men and women in preferences for negative content were observed, which implies that the third hypothesis

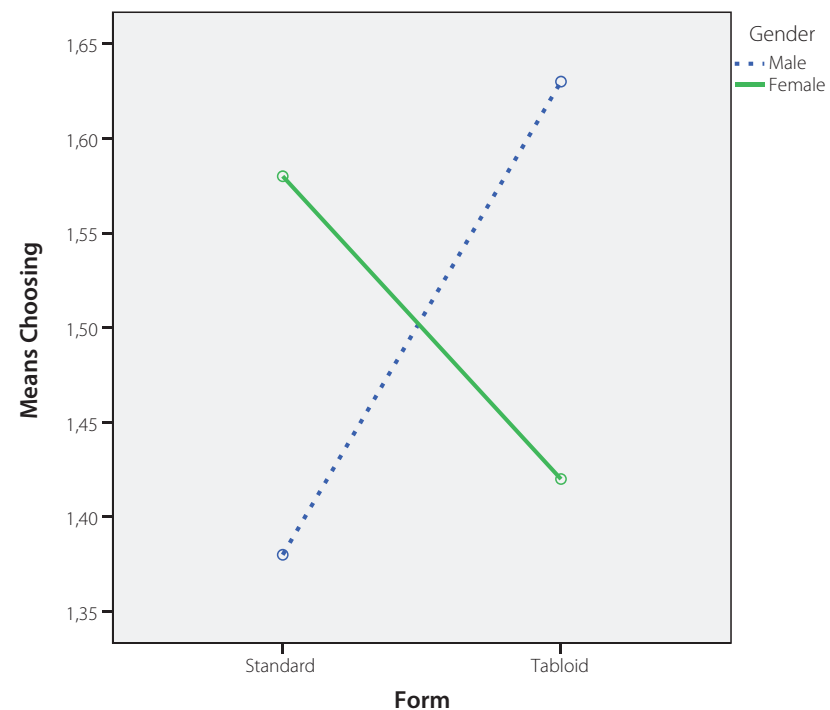


Figure 4 Interaction between form and gender for choosing

should also be rejected. The fourth hypothesis is supported, as it was found that men, in comparison to women, had a stronger preference for tabloid-packaged news stories than for standard-packaged news stories.

Discussion

Little research has been devoted to the question whether negative news and packaging news in a tabloid style might help to gain or to maintain the preferences of specific viewer categories. This study aimed at answering this question. The findings showed that, as predicted, younger viewers have a stronger preference for negative content in news stories than middle-aged and old viewers. Also in line with the expectations, men have a stronger preference for tabloid packaging than women. Because of these findings, we may conclude that preferences for negative content and tabloid packaging are moderated by age and gender.

In contrast to our predictions, the study findings did not show gendered preferences for the content of news stories, nor did the study show age differences for the production style that was included in the news stories. Both findings may be explained by the European (Dutch) context in which this study was carried out.

Although no scientific research has been published on the subject, we dare to argue that a U.S. news watcher who watches a few Dutch news programs will probably conclude that even the most flashy produced Dutch television news story is relatively calm compared with U.S. standards. As a result, we had limited opportunities to make very strong distinctions between the standard- and tabloid-packaged stories without losing the realistic character of the stories. This relative lack of variance in the independent variable 'form' might explain the small effect sizes for the interaction between gender and form as well as the absence of the expected interaction between age and form.

The absence of an interaction between gender and content may be explained by the ambiguous effect of eyewitnesses and victims on female viewers. Presenting ordinary citizens as eyewitnesses or victims in news stories has become a routine practice in many European television news programs over the past years (cf. Hendriks Vettehen et al., 2005; Hjarvard, 2000; Hvitfelt, 1994). Especially negative stories lend themselves to the inclusion of eyewitnesses or victims. As a result, the negative news stories in this study also featured a number of eyewitnesses and victims. These eyewitnesses and victims may have affected female participants in two opposite ways. On the one hand, eyewitnesses and victims contribute to the negative valence of the news story because they often express negative emotions. Given that research has shown that women avoid negatively framed news (cf. Grabe & Kamhawi, 2006; Kamhawi & Grabe, 2008), it can be assumed that the negative valence of these sound bites result in avoidance responses in women, just as the negative story topics and pictures were expected to do. On the other hand, however, it may be argued that women are attracted to sound bites by eyewitnesses and victims. Van Zoonen (1998) has argued that a less detached mode of reporting 'feminizes' the news, which obviously would be preferred by women. In contrast to the general news facts that are usually provided by news anchors, sound bites by eyewitnesses and victims provide examples of such 'feminized' news stories. Hence, it may be predicted that negative news stories featuring eyewitnesses and victims would be preferred particularly by women. The potentially double-barreled effect of eyewitnesses and victims might explain the zero finding regarding men and women's appreciation of negative content. However, because this explanation is somewhat speculative, further research is needed to shed light on the precise role of eyewitnesses and victims.

The current study has some methodological limitations that have to be taken into account when interpreting the results. First, the fact that we used negative content stories and neutral stories somewhat limits a direct comparison between our findings and findings from other studies. For instance, the Gauntlett and Hill (1999) findings suggest that both the presence of positive aspects and the absence of negative aspects may

induce older viewers to prefer certain programs. However, their results do not show whether older viewers' preference is the result of the presence of positive aspects, the absence of negative aspects, or the combination of these reasons. Comparing the negative aspects in news stories with a neutral condition, as we did in the current study, enables us to disentangle whether or not the presence of negativity in news stories explains differences in preferences between viewers varying in age. However, the flipside of the decision to focus on the negative aspects only is that we are not able to answer the question whether positive news aspects might induce older viewers to prefer this kind of news stories. To answer this question, future studies should also include positive news stories in the study design.

Second, it needs to be mentioned that the dependent variables in this study, staying tuned and choosing, were self-reports rather than direct measures. A number of objections may be raised against self-reports, of which task difficulty (e.g., in answering questions about internal states) and social desirability are perhaps the most obvious. However, the questions referring to viewer preferences were relatively easy for participants to answer. Moreover, even the negative content stories were not extremely shocking, vulgar, or sexual, which makes socially desirable responding unlikely. There is therefore little reason to assume that these factors may have influenced the viewer responses in the current study.

Third, the external validity of the measures might be disputed as it may be expected that news producers are especially interested in how a certain news story captured viewers on the first exposure, not after already viewing the story. This criticism applies even more to the 'choosing' measure, because participants had watched four stories before they could indicate whether they would like to see a story again. However, this study is not about the viewers' instant reactions to specific stories, but about the question which types of content and form viewers would choose if they had a choice. As already indicated in the introduction to this study, knowledge of these preferences for certain types of content and form may be helpful to news producers both in gaining and maintaining the viewers' favor.

Fourth, the sample of the study comprised highly educated participants. Grabe, Lang, Zhou, and Bolls (2000) found that higher educated viewers enjoyed negative content in news stories more compared with lower educated viewers. For that reason, one should be cautious in generalizing the present study findings to other population groups. Further research on audience preferences should include lower education participants to find out whether level of education is another moderator of the relation we studied.

The results of the current study may be important to newsmakers. In particular, the old newsroom saying "if it bleeds, it leads" appears to apply most to young viewers. In addition, women seem to be less keen on flashy production features than men are. Elaborating on these practical implications, it is important to realize that most journalists not only aim at attracting viewers but that they also aim at informing them about current events. The question is whether these two goals may conflict with one another. To

exemplify, Lang, Potter, and Grabe (2003) proposed a set of seven production rules that should make news stories easier to process. For instance, the rule 'slow it down' suggests that "when stories are complex, the pace should be slow to moderate with a minimal use of attention eliciting structural features" (Lang et al., 2003, p. 114). In contrast, the present study showed that in comparison with women, men prefer a flashy news production style. For men, reducing the number of tabloid features in the story potentially results in less attendance. In this example, the aims of informing and attracting viewers may conflict in the case of male viewers.

Future research may combine story preferences and story recognition and recall in one design, in order to study whether attracting and informing viewers at the same time may conflict. Similar to this study, it should preferably include participants of different age, gender, and level of education. Results of such a study could lend a hand to journalists in enhancing the informative function of television news. In combination with the knowledge about viewer preferences, guidelines for the development of television news programs aimed at specific target groups can be formulated. These guidelines might be helpful in finding a point of balance between optimally informing and attracting viewers, by using different contents and production styles in television news programs targeted at different audiences.

Chapter 5

Enjoyment of Arousing Television News: The Role of Age, Gender, and Sensation Seeking¹

This study examined the relationship between arousing television news stories and enjoyment, and explored the potential moderating role of gender, age, and sensation seeking. Participants (N = 288) watched four news stories and reported both their feelings of arousal and their enjoyment of each story. An \cap -shaped relationship between arousal and enjoyment was found. This relationship was not moderated by gender or sensation seeking, but it was moderated by age: the level of arousal at which enjoyment reached its maximum was higher as viewers were younger.

¹ This chapter is submitted for publication as: Kleemans, M., Hendriks Vettehen, P.G.J., Eisinga, R., & Beentjes, J.W.J. (2012). Enjoyment of arousing television news: The role of age, gender, and sensation seeking.

Enjoyment of Arousing Television News: The Role of Age, Gender, and Sensation Seeking

Over the last decades, interest in assessing the social significance of entertaining media messages for media users has widely increased. This might be due to the proliferation of new media genres, such as mobile entertainment and social network sites, but also to the fast-paced developments of existing formats (Oliver & Bartsch, 2010). Various researchers have argued that for many media users entertainment simply means enjoyment (Bryant & Miron, 2002; Sherry, 2004) and some even identified enjoyment as “the core of media entertainment” (Vorderer, Klimmt, & Ritterfeld, 2004, p. 389). Hence, enjoyment is considered by many scholars to be a central concept in explaining mass media entertainment (cf. Nabi & Krcmar, 2004; Vorderer et al., 2004).

Mass media enjoyment has mainly been studied in the context of media genres that are primarily meant to entertain, such as movies, quiz programs, and video games (Bryant & Miron, 2002; Bryant & Zillmann, 1984; Sherry, 2004). In addition, the enjoyment of television news has also received some research attention (Grabe, Lang, Zhou & Bolls, 2000; Hendriks Vettehen, Nuijten & Peeters, 2008; Kamhawi & Grabe, 2008; Zillmann, Taylor, & Lewis, 1998). This may seem somewhat surprising, given the informative function that is attached to this genre. However, studies on news gratifications have shown that viewers watch television news not only to get informed but also to be entertained (Rubin & Perse, 1987; Sherry, 2004). Attention for news entertainment was also caused by the apparent contradictory finding that bad news showed to be more enjoyable than good news (cf. Aust, 2003; Bryant & Miron, 2002). In addition, fierce public debates in which news critics argued that news producers increasingly aim to entertain viewers might have stimulated attention for news entertainment (Franklin, 1997; Jones, 2009). The way in which news stories entertain viewers is also the issue of the current study. In line with previous media research, we will study the role of television news as entertainment by focusing on enjoyment as experienced by viewers.

In communication studies, the concept of enjoyment is used to indicate a general positive reaction towards a media message (Raney & Bryant, 2002; Vorderer et al., 2004). Nabi and Krcmar (2004, p. 296) consider enjoyment as an attitude that may be based on affective, cognitive, and behavioral assessments; and that may involve message-related and experience-related aspects of a genre, program, episode, or particular elements within the episode. In the current study, it concerns message-related and experience-related aspects of particular elements of news programs, namely arousing news characteristics.

Previous research has shown that certain kinds of news characteristics (in particular bad news and fast-paced news) are related to the enjoyment of television news. Moreover, it was found that the arousal elicited by these news characteristics is a crucial factor in explaining the enjoyment of news. More specifically, several studies found that both negative news and fast-paced news are able to elicit arousal (cf. Grabe, Lang, & Zhao, 2003;

Hendriks Vettehen et al., 2008; Lang, Bolls, Potter, & Kawahara, 1999; Lang et al., 2005). In addition, some studies showed that these arousing news characteristics were related to the viewers' enjoyment (Grabe et al., 2000a; Grabe, Zhou, Lang, & Bolls, 2000; Hendriks Vettehen et al., 2008; Kamhawi & Grabe, 2008).

Previous studies not only suggested that the relationship between arousing news characteristics and enjoyment of television news stories may be mediated by the arousal experienced by news viewers, but also that the relationship may be moderated by individual characteristics (cf. Grabe et al., 2000a; Kamhawi & Grabe, 2008). Studies regarding other media genres showed that in particular gender and age moderate the relationship between arousing media messages and the enjoyment of these messages (Hoffner & Levine, 2005; Perry, 2001; Steenkamp, Baumgartner, & Van der Wulp, 1996). The current study adds to previous research by investigating age and gender differences in viewer's enjoyment of arousing television news.

Arousal and Enjoyment

Wundt argued already in 1874 that a positive feeling is the result of an optimal level of arousal that produces an optimal experience. In other words, if an experience is above or below the optimal level, it is perceived as less positive. This general idea is incorporated in various theories, such as flow theory (Csikszentmihalyi, 1992), mood management theory (Zillmann, 1988), Berlyne's (1960) optimal level theory, and the study of sensation seeking (Zuckerman, 1994). The theories state that the positive feeling that comes with an optimal level of arousal results in audience reactions such as flow, exposure, and pleasantness. Hence, in line with these responses, the level of enjoyment experienced by viewers might be seen as a reaction to a certain stimulus. We therefore believe that these theories are well suited for the study of the enjoyment of television news.

Of all theories on optimal arousal, Berlyne's theory seems (1960) to be the most appropriate one to be used here. The reason is that this theory describes characteristics of stimuli that are able to elicit arousal and how this arousal may influence enjoyment. In addition, sensation seeking studies offer an explanation for differences between individuals (Zuckerman, 1994).

Arousal may be conceptualized as a state of alertness and physical excitation elicited by a stimulus (Bente & Eschenburg, 2008). It is used interchangeably with terms such as excitation, stimulation, and activation in the literature. Berlyne's central assumption is that humans strive to maintain an intermediate amount of arousal since this level is most enjoyable. Stimuli that evoke either too little or too much arousal are judged as less enjoyable. In other words, Berlyne (1960) assumes an \cap -shaped relationship between arousal elicited by a certain stimulus and enjoyment. Translated to television news stories, it may be expected that viewers experience enjoyment of stories that elicit arousal in

accordance with their individual need for arousal. This implies that viewers will judge news stories that evoke less or more arousal than their individual need as less enjoyable.

According to Berlyne (1960), stimuli vary in the arousal they provide, i.e., their arousal potential. Optimal arousal theory states that stimuli characterized by for instance novelty, complexity, surprise, and uncertainty offer arousal. More recently, a large body of research studied the arousal potential of content and packaging characteristics of media messages. Regarding content, the studies showed that the presence of a dramatic story subject and negative pictures increase the arousal potential of a message (e.g., Grabe et al., 2003; Hendriks Vettehen et al., 2008; Lang et al., 1999; Lang, Newhagen, & Reeves, 1996). With respect to the packaging of the message, a number of studies found that tabloid-packaged messages are more arousing than standard ones. Packaging features such as a high number of cuts and edits, visual special effects, and eyewitness camera perspectives make messages flashier and more arousing (Hendriks Vettehen et al., 2008; Lang et al., 1999; Morgan, Palmgreen, Stephenson, Hoyle, & Lorch, 2003).

The \cap -shaped relationship between arousal and enjoyment was found by Hendriks Vettehen et al. (2008) for television news. They showed that an increase in emotional arousal elicited by news story characteristics increased the viewer's enjoyment of the story, but only up to a certain point. Beyond that point, a further increase in arousal decreased the enjoyment of the news story. On both theoretical and empirical grounds, we thus expect to find a curvilinear relationship between arousal elicited by news stories and enjoyment in the current study. For that reason, our first hypothesis states that:

H1: The relationship between arousal evoked by news stories and the enjoyment of these stories takes the form of an \cap

Sensation Seeking, Gender, and Age

A variable that is frequently applied in previous research to explain individual differences in the need for arousal is Zuckerman's concept of sensation seeking. Zuckerman (1994) argued that there are consistent individual differences in optimal levels of arousal. Some people seek to achieve or maintain low levels of arousal (known as the low sensation seekers), while other people prefer high levels of arousal (the so-called high sensation seekers). High sensation seekers search in their daily life for sensations and experiences that are for instance novel, complex, or intense, since these have more arousal potential. It may be expected that people with a high need for arousal will enjoy highly arousing messages more compared to low sensation seekers (cf. Zuckerman, 1994). Drawing from Zuckerman's concept of sensation seeking (1994), differences between viewers varying in gender and age may be expected.

Regarding gender, previous research with Zuckerman's sensation seeking scale has shown that men have a higher need for arousal than women (Joinson & Nettle, 2005;

Zuckerman, 1988). Theoretically, this implies that the crest-point of the expected \cap might be at a higher level of arousal for men than for women. Previous studies provide some indications for a moderating role of gender. Kamhawi and Grabe (2008) found that the content of news stories has a different effect on men's enjoyment than on women's enjoyment. Men reported greater enjoyment for negative news stories than for positive stories, while the opposite was found for women. In addition, women reported higher enjoyment of positively framed news stories compared to men, whereas men enjoyed negative news story content more than women did. Klein (2003) obtained similar results when studying responses to local television news. Women were more likely than men to report that television news makes them worry. They were also more likely to turn off the news because of the coverage of violent events.

As to age, sensation seeking literature predicts that young adults enjoy higher levels of arousal elicited by news stories compared to older adults. Research has shown that the sensation seeking trait peaks in adolescence or the early twenties and declines with age thereafter (Zuckerman, 1988; 1994; Zuckerman et al., 1978). This implies that younger viewers have a higher need for arousal than older viewers. Klein (2003) provided preliminary support for this expectation, as he found that senior citizens were less likely than younger ones to report that they watched the news to see violent content. Older viewers also more often reported that they turn off the television because of violent content than younger participants. As violence is a frequently used example of arousal eliciting content (cf. Grabe, Zhou, & Barnett, 2001; Slattery, Doremus, & Marcus, 2001), the results suggest that younger viewers are more likely to enjoy arousing news stories.

There are thus reasons to assume that the relationship between arousing characteristics in news stories and enjoyment is moderated by the viewer's gender and age and, also, that these moderating effects of gender and age can be explained by viewer differences in need for sensation. This leads to three hypotheses:

H2: The level of arousal at which enjoyment reaches its maximum is higher for men than for women

H3: The level of arousal at which enjoyment reaches its maximum is higher as viewers are younger

H4: The moderating effects of age and gender on the relationship between arousing news characteristics and enjoyment can be explained by viewer differences in need for sensation

Method

Stimulus Materials

We conducted an experiment with 16 Dutch news stories as stimulus materials². Stories were selected that could be assumed to vary in the ability to evoke arousal responses in viewers. As indicated above, it may be expected that negative content stories are more arousing than neutral stories (Grabe et al., 2003; Hendriks Vettehen et al., 2008; Lang et al., 1999). We therefore selected eight stories with negative content (i.e., a dramatic story topic and negative pictures), and eight stories with neutral content (i.e., stories about nature, culture, or economics). In a pilot study ($N = 51$), participants rated the valence of the news stories on a scale from 1 (negative) to 7 (positive). The results showed that the news stories were correctly assigned to the neutral ($M = 4.41$; $SD = .95$) or the negative ($M = 2.85$; $SD = .81$) content categories. Regarding packaging characteristics in news stories, earlier research has shown that stories that are packaged in a flashy tabloid style are more arousing than standard-packaged stories (Grabe et al., 2000b; Hendriks Vettehen et al., 2008; Lang et al., 1999). For that reason, half of the neutral and half of the negative stories had a tabloid style of packaging, including a large number of camera shots per minute ($M = 14.08$; $SD = 1.26$), music onsets, sound effects, fades, wipes, and dissolves. The other eight stories included standard packaging, i.e., a small number of camera shots ($M = 7.79$; $SD = .56$), no music, and no decorating editing techniques.

A number of factors were held constant across the 16 news stories to prevent contextual factors from distorting the results. The stories were broadcast in the Dutch evening news program *NOS Journaal* during a limited time period, namely between September 2007 and March 2008. All stories contained local news, had little variation in story duration, did not include an extremely controversial topic or a topic that had received extraordinary media attention, and did not have production errors. Finally, potential effects resulting from the anchorpersons were eliminated by replacing their spoken introductions by screenshots with written introductions.

Participants and Procedure

The 16 stories were divided into four groups of news stories. Each group consisted of four stories, one of each combination of content (negative or neutral) and packaging (tabloid or standard). Each participant watched the stories of one group. Since four stories may be presented in 24 different orders, 24 participants for each group of news stories were necessary to eliminate order effects. Moreover, as age is an important factor in the current study, we divided the participants equally over three age categories: young viewers (range

² The data used in this study were collected as part of a larger data gathering procedure (cf. Kleemans, Hendriks Vettehen, Beentjes, & Eisinga, 2012). We here describe only the parts of the procedure that are relevant for the current study.

18-26 years), middle-aged viewers (range 30-50 years), and old viewers (range 60-89 years). This implies that each group of news stories was watched by 24 participants of each age category, i.e., by 72 persons in total. As we have four groups of stories, a total number of 288 participants were recruited. Male ($N = 140$) and female ($N = 148$) participants were divided almost equally over the different groups of news stories.

The 288 study participants all had a high level of education. To represent the youngest group, 96 university students participated ($M_{age} = 21.70$; $SD_{age} = 2.05$; 28 males; 68 females). To represent the middle-aged people, 96 academic employees took part in the study ($M_{age} = 41.91$; $SD_{age} = 4.85$; 56 males; 40 females). The oldest group consisted of 96 former academic employees or other highly educated elderly people ($M_{age} = 68.82$; $SD_{age} = 6.98$; 56 males; 40 females).

Participants took part in the experiment individually. Except for a few elderly participants with vision or hearing problems, the sound volume, distance to the 15.4-inch screen (approximately 24 inches), and viewing angle were the same for each participant. At the beginning of the experiment, the participant answered a few general questions about for instance their age and gender. After that, he/she watched the first story and answered some questions about it, including the questions that were used in the current study to measure enjoyment and arousal. This procedure was repeated until the participant had watched all four news stories.

Variables

To measure *enjoyment* we applied the two-item scale designed by Hendriks Vettehen et al. (2008). Although Hendriks Vettehen et al. (2008) referred to this scale as 'liking', we believe that enjoyment is a better term since both the viewer's viewing experience ("I liked watching this story") and his/her disposition towards the story itself ("This was an attractive story") were questioned. The statements cover the two sources of valence underlying enjoyment, namely the earlier mentioned message-related and experience-related aspects of a media message (cf. Nabi & Krcmar, 2004). Participants had to respond to the two statements on a scale ranging from 1 (totally disagree) to 7 (totally agree). Another reason for choosing the Hendriks Vettehen et al. (2008) scale was that it was short but reliable. Its reliability was again confirmed in this study. Cronbach's alphas were calculated separately and independently for each of the four types of news stories. The values ranged from $\alpha = .83$ to $\alpha = .91$. The mean scores on enjoyment varied between $M = 3.21$ ($SD = 1.58$) and $M = 3.94$ ($SD = 1.81$) for each type of news story.

Sensation seeking was measured by the Brief Sensation Seeking Scale (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002). This revised version of Zuckerman's (1994) sensation seeking scale consisted of eight items, two items for each of the four primary dimensions of sensation seeking. Examples of these items are "I like to do frightening things" and "I would love to have new and exciting experiences, even if they are illegal". Participants responded on a 5-point scale, ranging from (1) strongly

disagree to (5) strongly agree. To construct the variable sensation seeking, we calculated the participant's mean score on the eight items (Cronbach's $\alpha = .75$). The mean score for sensation seeking was 2.65 ($SD = .76$).

Arousal was measured by the 'emotional arousal scale' employed by Hendriks Vettehen et al. (2008). This scale is a slightly modified version of a measure developed and tested by Morgan et al. (2003). The emotional arousal scale consisted of six statements about the story, with responses ranging from 1 (totally disagree) to 7 (totally agree). The statements include: "I felt involved in the event in the news story", "The images in this news story shocked me", "This event made a deep impression on me", "This story really touched me", "The images in this story left me unaffected", and "This event left me unaffected". The scores on the last two statements were reversed, since they are negative indicators of arousal. A factor analysis of the six statements yielded a single factor. We calculated the participant's mean score on the six statements to construct the variable arousal. Cronbach's alpha for each of the four types of news stories varied between $\alpha = .82$ and $\alpha = .88$. The mean scores for arousal ranged from 3.25 ($SD = 1.22$) to 4.73 ($SD = 1.33$).

The arousal scores were used as manipulation check of the expected arousal potential of different types of content and packaging of news stories. We found a strong main effect for content ($F(287,1) = 283.71$; $p < .001$; $\eta^2 = .50$), indicating that negative stories indeed elicited considerably more arousal ($M = 4.61$; $SD = .06$) than neutral stories ($M = 3.30$; $SD = .06$). The main effect for packaging did not reach significance. Only a weak interaction between content and packaging was found ($F(287,1) = 6.37$; $p < .01$; $\eta^2 = .02$). Additional analyses showed that for neutral stories, no difference in arousal existed between standard and tabloid stories. The results for negative stories were opposite to our expectations. Negative content stories that were packaged in a standard style elicited slightly more arousal compared to negative stories in tabloid style ($\Delta M = .23$; $SD = .09$; $p < .01$). We therefore conclude that the variance in arousal is largely due to the differences between negative and neutral stories. The packaging of the story has a rather minor effect on the elicitation of arousal. An explanation for this may be that Dutch television news seems to be relatively calm and that, compared to the US for example, the differences between standard- and tabloid-packaged stories are less substantial.

Data Analysis

Since measurements on the same individuals are likely to be associated, repeated measures analyses were applied to the data. The analyses were performed with the mixed-effects model (MIXED) procedure in SPSS 17 using an unstructured covariance matrix. Likelihood ratio tests were performed to test models that are nested in and simplifications of other models. The test is defined as minus twice the difference in the log likelihoods ($-2\Delta\ell\ell$) of the nested models. We controlled for the two content and the two packaging categories.

Results

Our first hypothesis (H1) argues that enjoyment of television news stories increases with emotional arousal, but only up to a certain point. When levels of arousal become too high, enjoyment of the news stories decreases. To test this thesis of an \cap -shaped relationship, a quadratic term, arousal-squared, was added to a linear model. The curvilinear model was applied to the total sample and it included tabloid packaging and negative content of news stories as control variables. The results of the model – denoted model 1 – are reported in Table 1.

The highly significant negative value of the quadratic term indicates the existence of a curvilinear relationship between arousal and enjoyment. Further, according to the likelihood ratio test, dropping the quadratic term from the model results in a significant decrease in model fit ($-2\Delta\ell\ell = 76.116$, $df = 1$, $p < .001$). These results provide strong support for the hypothesis that there is an \cap -shaped relationship between arousal and enjoyment of television news stories (H1).

Model 2 was used to examine potential gender differences in the association between arousal and enjoyment. As can be seen in Table 1, both the linear and the quadratic terms for males and females are rather similar. Comparing model 2 and model 1, the subtractive chi-square difference was not significant ($-2\Delta\ell\ell = 3.536$, $df = 3$, $p = .32$), implying that constraining the effects to be equal, as in model 1, does not result in a reduction in model fit. We may therefore conclude that there are no significant differences between male and female viewers with respect to the relationship between arousal and enjoyment. This finding rejects our second hypothesis.

Model 3 tested the arousal by age interaction with regard to enjoyment of television news stories. The likelihood ratio test indicated that dropping the constraint of invariant effects of arousal and arousal-squared on enjoyment by age, as in model 3, resulted in a highly significant improvement in fit over model 1 ($-2\Delta\ell\ell = 64.266$, $df = 6$, $p < .001$). Further, the parameter estimates for young, middle-aged, and old viewers displayed in Table 1 are rather different. The results are in accordance with our third hypothesis (H3): the level of arousal at which enjoyment reaches its maximum is higher as viewers are younger.

We subsequently examined if the arousal by age interaction varied by gender. The second order age-by-arousal-by-gender model obtained a minus two log likelihood of 3990.601, which implies no significant improvement in fit relative to model 3 ($-2\Delta\ell\ell = 14.455$, $df = 9$, $p = .107$). Hence gender bears no relevance to the aged-related association between arousal and enjoyment.

Our fourth hypothesis (H4) states that sensation seeking explains the moderating influence of gender and age on the relationship between arousal and enjoyment. To put it simple, we formulated the hypothesis that younger viewers and men have a different maximum level of enjoyment for arousing television news stories compared to older viewers and women because younger viewers and men are mainly high sensation seekers,

while older viewers and women are predominantly low sensation seekers. To verify if sensation seeking is a meaningful variable with regard to the relation between arousal and enjoyment, we first tested in model 4 the arousal by sensation seeking interaction for the enjoyment of television news stories. We distinguished between high and low sensation seekers by dividing the participants into two groups based on the median level of sensation seeking (2.63). As can be seen in Table 1, both the linear and the quadratic terms for low and high sensation seekers differ significantly. Compared to model 1, the likelihood ratio test showed a significant improvement in fit for model 4 ($-2\Delta\ell\ell = 17.706$, $df = 3$, $p < .001$). We might thus conclude that sensation seeking conceivably plays a role in explaining differences in enjoyment. In addition, we conducted an analysis of variance to test the assumption that younger viewers and men are higher sensation seekers than older viewers and women. First, it was found that sensation seeking indeed differs between the three age categories ($F(2,282) = 43.56$; $p < .001$; $\eta^2 = .24$). The results of a post-hoc Tukey-test shows that young viewer ($M = 3.21$; $SE = .07$) are significantly ($p < .001$) higher sensation seekers than the middle-aged ($M = 2.55$; $SE = .07$) and old ($M = 2.28$; $SE = .07$) viewers ($p < .001$). The difference between middle-age and old viewers is also significant ($p < .01$). Second, we found a main effect for gender ($F(1,282) = 20.76$; $p < .001$; $\eta^2 = .07$), showing that men ($M = 2.87$; $SE = .06$) are higher sensation seekers than women ($M = 2.49$; $SE = .06$). In addition, we found a weak gender by age interaction ($F(2,285) = 5.85$; $p < .003$; $\eta^2 = .04$), showing that old men did not differ in their need for sensation compared with old women ($p = .14$). Young and middle-aged men were higher sensation seekers than respectively young women ($p < .001$) and middle-aged women ($p < .001$).

Although sensation seeking varies between men and women, we showed in model 2 that we did not find a moderating influence of gender on the relationship between arousal and enjoyment. Differences in need for sensation between men and women did thus not lead to different levels of arousal at which enjoyment reaches its maximum. This refutes the claim we made in the fourth hypothesis with regard to gender.

As we did not find a moderating influence of gender, further analyses only focused on the age variable. We tested in model 5 the age by arousal interaction for both high and low sensation seekers, and compared this model with the one which included only the arousal by age interaction (model 3). If sensation seeking explains the differences between the three age categories, an improvement in model fit for model 5 should appear. However, including sensation seeking in the model shows no improvement in fit over model 3 ($-2\Delta\ell\ell = 7.234$, $df = 9$, $p = .62$). We may thus conclude that sensation seeking has no effect independent of age. In other words, the differences between the age groups cannot be explained by differences in sensation seeking. There is no support for the fourth hypothesis (H4). In contrast, the moderating effect of sensation seeking that had been found in model 4 appears to be spurious, as it is explained by age differences between low and high sensation seekers.

Table 1 Repeated Measures Regression of Enjoyment of Television News Stories on Arousal for Total Sample, by Gender, Age and Sensation Seeking, Controlled for Tabloid Packaging and Negative Content of News Stories (N = 288)

Model	Sample	Intercept	Arousal	Arousal ²	Tabloid Packaging	Negative Content	-2ll
1	total	-.131 (.269)	1.796 (.143)***	-.160 (.018)***	.122 (.078)	-1.168 (.101)***	4069.322
2	male	.130 (.403)	1.678 (.217)***	-.143 (.027)***	.122 (.078)	-1.167 (.101)***	4065.786
	female	-.284 (.360)	1.849 (.191)***	-.168 (.024)***			
3	young	-.036 (.460)	1.541 (.257)***	-.093 (.033)***	.151 (.078)	-1.221 (.095)***	4005.056
	middle-aged	.619 (.458)	1.458 (.250)***	-.119 (.032)***			
	old	-.306 (.490)	1.914 (.241)***	-.195 (.028)***			
4	high sensation	-.051 (.409)	1.639 (.220)***	-.124 (.028)***	.117 (.077)	-1.180 (.099)***	4051.616
	low sensation	-.070 (.354)	1.849 (.187)***	-.179 (.023)***			
5	young:						
	high sensation	-.003 (.554)	1.546 (.311)***	-.095 (.040)*	.147 (.078)	-1.226 (.094)***	3997.822
	low sensation	-.118 (.827)	1.546 (.453)***	-.092 (.057)			
	middle-aged:						
	high sensation	.614 (.726)	1.342 (.392)***	-.089 (.049)			
	low sensation	.608 (.589)	1.550 (.323)***	-.142 (.041)***			
	old:						
	high sensation	-.143 (1.209)	1.689 (.580)**	-.155 (.065)*			
	low sensation	-.336 (.534)	1.991 (.266)***	-.209 (.031)***			
6	total	.049 (.269)	1.676 (.142)***		.139 (.078)	-1.210 (.096)***	4015.176
	young			-.123 (.018)***			
	middle-aged			-.139 (.018)***			
	old			-.164 (.017)***			

Note. Standard error in parenthesis. * $p < .05$, ** $p < .01$, *** $p < .001$.

Hence we conclude that model 3 explains differences in the enjoyment of television news best. For that reason, we took this model to obtain a reduced model that fits the data well. Model 6 estimated separate quadratic terms for each of the three age groups but constrained the intercepts and the linear terms to be invariant. The difference in chi-square statistics and in model degrees of freedom between model 3 and model 6 indicated that the invariant intercept and invariant linear terms in model 6 deteriorated the fit of the model at the .05 level of significance ($-2\Delta\ell\ell = 10.120$, $df = 4$, $p = .04$). However, the individual

differences between the intercepts and between the linear slopes are all not significantly different from zero at the .05 level. Also, the Bayesian Information Criterium (BIC) values for model 3 and model 6 are 4153.091 and 4135.013, respectively. A smaller BIC value indicates a superior model in the sense that it provides better balance between complexity and good model fit. This implies that the additional complexity of separate intercepts and linear slopes in model 3 is unwarranted. We therefore prefer model 6 for reason of parsimony.

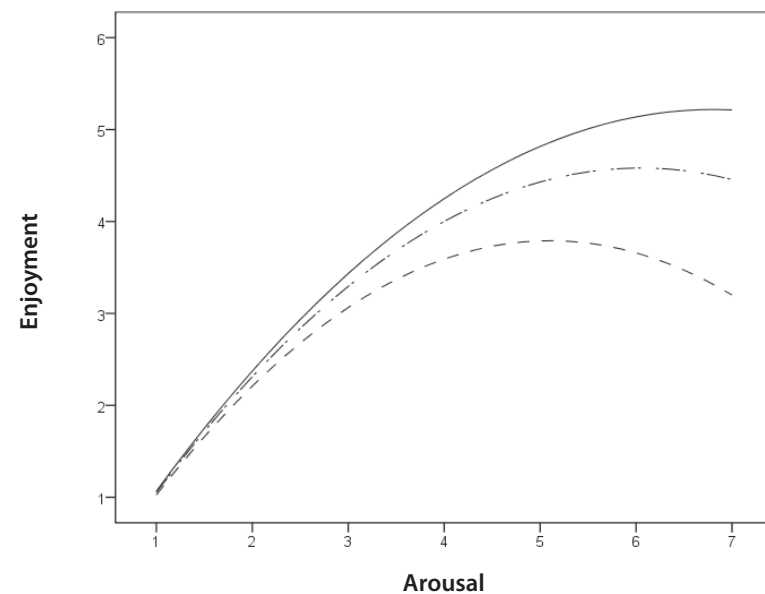


Figure 1 Predicted mean enjoyment of television news stories by arousal among young (solid), middle-aged (dot-dash-dot) and old viewers (dash)

Further, the likelihood ratio test revealed that dropping the constraint of an invariant quadratic effect of arousal on enjoyment by age in model 6, resulted in a highly significant improvement in fit over model 1 ($-2\Delta\ell\ell = 54.146$, $df = 2$, $p < .001$). Hence the age-by-arousal-squared interaction cannot be removed without a significant decrease in model fit. The model 6 estimates were used to obtain predicted mean enjoyment for news stories scores by arousal among young, middle-aged and older viewers. The fitted values are graphically displayed in Figure 1. The control variables tabloid packaging and negative content of news stories were held at their means.

As can be seen, the differences in enjoyment of news stories between young, middle-aged, and older viewers increase with arousal. While there are no differences in enjoyment when arousal is at its minimum value of 1, the age-group enjoyment differentials are largest when arousal reaches its maximum value of 7. Further, not only do the three age groups obtain a different maximum score for enjoyment, they also do so at a different value of arousal. Older viewers attain a maximum predicted score on enjoyment of 3.8 at an arousal value of 5.1, middle-aged viewers a maximum enjoyment score of 4.6 at an arousal of 6.0, and young viewers a maximum enjoyment score of 5.2 at an arousal of 6.8.

The analysis controlled for the content and packaging of the news stories. As Table 1 shows, the packaging of the news story has no effect on enjoyment. The content of the news story, however, affects the enjoyment of the story. Negative content had a negative effect on news story enjoyment.

Discussion

This study aimed at investigating the role of television news as entertainment by focusing on the enjoyment that viewers experience while watching the news. It showed that the enjoyment experienced by viewers depends on the degree to which the level of arousal elicited by negative news stories meets the viewers' optimal level of arousal. In addition, it showed that this optimal level of arousal was different for viewers of different ages, but not for men and women. Although sensation seeking was shown to vary between men and women, and between younger and older viewers, we did not find support for the expectation that sensation seeking explains moderating effects of gender and age on the relationship between arousing news characteristics and enjoyment.

The results of this study raise some queries. A first question is how the differences in optimal arousal curves between age categories can be explained, if not by sensation seeking. A generation effect may be the answer. According to Berlyne, reactions to a stimulus depend not only on the interaction between an individual's need for arousal and the arousal potential of the stimulus, but also on how promptly and easily an individual has been able to alleviate the arousal induced by similar conditions in the past (Berlyne, 1960, p. 212). This may point to an effect of the generation to which a viewer belongs. Since today's young adults were raised in an arousing, fast-paced media environment, they are more at ease with arousing media messages than older viewers (cf. Tapscott, 2009). It is possible that younger viewers need higher levels of arousal to experience an optimal feeling of enjoyment because of their more frequent exposure to arousing stimuli. This may explain the differences that were found between age categories in this study.

Second, the absence of gender differences in the relationship between arousal and enjoyment needs further attention. The probable reason for not finding gender differences is that our hypothesis regarding gender was largely based on sensation seeking: we expected differences since male viewers were expected to be higher sensation seekers, and since high sensation seekers were expected to display higher levels of arousal at which enjoyment would be optimal. However, although we did find that men were higher sensation seekers than women, the moderating role of sensation seeking that originally emerged (Model 4) appeared to be spurious after controlling for age (Model 5). Hence, we may conclude that the absence of a moderating effect of sensation seeking explains why no moderating effect of gender was found.

Third, the question arises why sensation seeking did not play a role with regard to the enjoyment of arousing television news. The answer might be that the sensation seeking

scale cannot grasp the subtle differences in arousal as elicited by news stories. Sensation seeking scale distinguishes between high and low sensation seekers by determining an individual's need for arousal based on the extent to which they like high arousing activities such as bungee jumping, exploring strange places, and visiting wild parties (cf. Hoyle et al., 2002). Comparing these arousal eliciting activities with arousing television news stories (e.g., fast-paced news stories containing story topics and pictures of a fire in a museum), one might conclude that arousing television news elicit relatively moderate levels of arousal. Even in its most arousing format, the television news genre may not be arousing enough to enjoy high sensation seekers at a different level compared to low sensation seekers. This may explain why sensation seeking did not affect the relationship between arousal and enjoyment with regard to television news.

This study adds to our understanding of the mixed feelings one may recognize while watching negative news. Although our results showed a direct negative effect of negative content in television news on enjoyment (which might be explained by the fact that negative topics and pictures in these news stories represent unpleasant events), we also found that these primarily non-enjoyable news stories may to some extent be experienced as enjoyable by viewers. These findings explain why news viewers may still enjoy watching the news, even when it features negative events.

At a more general theoretical level, the current study adds to a line of research that discusses media messages like sad movies (Oliver, 1993; 2008), horror films (King & Hourani, 2007), and sad-sounding music (Schellenberg, Peretz, & Vieillard, 2008) in terms of their puzzling appeal. These studies provide support to recent conceptualizations of media enjoyment that go beyond the notion of enjoyment as 'fun' (e.g., Oliver & Bartsch, 2010; Tamborini, Bowman, Eden, Grizzard, & Organ, 2010). For instance, Oliver and Bartsch (2010) suggested that enjoyment encompasses at least two more dimensions beyond pleasure seeking. First, experiences that are related to appreciation (e.g., thought-provoking experiences, such as watching drama) may correspond to enjoyment. Second, experiences of thrill and suspense, characterized by emotional arousal and negative valence, may correspond to enjoyment (Oliver & Bartsch, 2010, p. 75). The findings from this study exemplify the latter dimension of enjoyment.

The current study also adds to previous research on enjoyment since it showed that enjoyment for television news varies between viewers of different age groups. The moderating influence of viewer characteristics has received limited attention in previous research on enjoyment. The results of the current study support the inclusion of such variables in future studies on enjoyment, to test their influence with regard to a broad range of media genres.

Finally, the results of the current study may offer some clues to news producers concerning the question whether they indeed entertain viewers through emotional arousal. In general, this study showed that young viewers enjoy arousing news stories, implying that recent developments in the news market, such as the emergence of highly

arousing newscasts that especially aim at younger viewers (Vandebosch, Dhoest, & Van den Bulck, 2009), are beneficial to attract this viewer category. However, news producers should be cautious. First, the results of the current study showed that the amount of arousal that young viewers experience as pleasurable is not unlimited. Second, there is reason to believe that older news viewers may tend to avoid newscasts with highly arousing stories since they enjoy these high arousing stories to a considerably lesser degree. Third, our results revealed a negative effect of negative content, indicating that the valence of a news story affects enjoyment. However, we included only negative and neutral stories in the current study. Future research may also include positively arousing news stories to be more conclusive regarding the question how news producers can serve the audience.

Chapter 6

How Arousing News Characteristics Affect the Knowledge Gap between Higher and Lower Educated Young Viewers¹

This study aims at answering the question whether the content (negative versus neutral) and packaging (tabloid versus standard) of television news stories influence information processing of and preferences for these stories among higher and lower educated viewers. Results of an experiment showed a moderating role of negative content: higher educated viewers had a better recognition of negative content stories than neutral content stories, whereas the recognition of lower educated viewers did not improve. Negative content thus widens the knowledge gap between higher and lower educated viewers. Preferences for content of news stories had no effect: both higher and lower educated viewers had a stronger preference for negative content. No effects of packaging were found.

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How Arousing News Characteristics Affect the Knowledge Gap between Higher and Lower Educated Young Viewers

The existence of knowledge gaps between people from different socioeconomic backgrounds has inspired communication research for several decades (Tichenor, Donohue, & Olien, 1970; see Gaziano, 1997; Viswanath & Finnegan, 1996 for reviews, and Hwang & Jeong, 2009 for a meta-analysis); and it has inspired this study as well. Previous research consistently showed that people with a higher socioeconomic status have a higher level of knowledge about issues compared with those with a lower socioeconomic status (cf. Hwang & Jeong, 2009). However, there is an ongoing discussion about the extent to which media might be able to affect this knowledge gap. In particular, the role of television news as a possible knowledge leveler received ample attention, as previous research has generated a number of findings that are difficult to reconcile in this regard (cf. Liu & Eveland, 2005; Viswanath & Finnegan, 1996). In an attempt to clarify these results, several studies have focused on conditions under which television news may widen or level the knowledge gap. These studies provided support for the moderating role of audience-related factors such as being a heavy or light user of television news (Eveland & Scheufele, 2000; Kwak, 1999), behavioral involvement in issue-related activities (Kwak, 1999), and issue interest (Liu & Eveland, 2005). Some other studies paid attention to medium-related moderators such as channel use (Grabe, Kamhawi, & Yeghyan, 2009) or message-related moderators like the nature of the news topic (Neuman, 1976). The current study will extend previous research on message-related moderators by focusing on a less frequently studied, but promising factor with regard to television news and the knowledge gap, namely message arousal (cf. Grabe, Lang, Zhou, & Bolls, 2000).

In particular, this study will focus on the influence of arousing news content and packaging characteristics: characteristics in news messages that have the capability to provoke arousal and attention responses in viewers (cf. Grabe, Zhou, & Barnett, 2001; Hendriks Vettehen, Beentjes, Nuijten, & Peeters, 2011). With regard to content, examples of arousing characteristics are the presence of a dramatic story topic and the inclusion of dramatic pictures, for example stories and pictures about crimes, violence, accidents, and disasters (cf. Adams, 1978; Grabe et al., 2001; Hendriks Vettehen et al., 2011; Newhagen & Reeves, 1992). Due to the generally negative nature of these stories and pictures, this content category is labeled *negative content* in the current study. Regarding packaging, audiovisual production characteristics such as fast-pacing, music onsets, and the use of decorative editing techniques (e.g., wipes, fades, and dissolves) were shown to have the ability to elicit arousal and attention responses in viewers (Grabe et al., 2001; Grabe, Lang, & Zhao, 2003; Grabe, Zhou, Lang, & Bolls, 2000; Lang, 2000). Stories containing such format characteristics are labeled *tabloid packaging* here.

The choice for studying the potentially moderating role of negative content and tabloid packaging was inspired foremost by the work of Grabe and colleagues (2000a; Grabe, Yeghyan, & Kamhawi, 2008), who primarily focused on the role of information processing in explaining knowledge gaps. In their 2008 study, they provided preliminary support for the expectation that, because of its arousing potential, negative content of news may be seen as a moderating factor. That is, although they generally found knowledge gaps following experimental exposure to news stories, these knowledge gaps appeared to be smaller for negative news stories than for neutral news stories. The current study extends this line of research in two ways.

First, not only negative content is included in the study, but also another category of news characteristics that has arousing potential, namely tabloid packaging characteristics. As Grabe and colleagues (2008) mentioned in the discussion section of their study, news story packaging deserves attention as the arousal eliciting capability of packaging characteristics (e.g., Grabe et al., 2000b; 2003) might also affect knowledge gaps. However, this expectation did not receive attention in previous research.

Second, the current study addresses the question whether socioeconomic status groups differ in preferences for television news stories. Viewers can only learn from television news if they expose themselves to the news, which implies that preferences may affect knowledge gaps indirectly. Studies have shown that viewers with a lower socioeconomic status have a lower preference for news (cf. Liu & Eveland, 2005; Prior, 2003) and that differences in preference for news may magnify the knowledge gap between people with a preference for news and people with a preference for other media content (Prior, 2005). Since we know that negative content and tabloid packaging in news stories affect news story preferences (cf. Kleemans, Hendriks Vettehen, Beentjes, & Eisinga, 2012; Lang et al., 2005), one might question whether different socioeconomic groups have different preferences for negative news content and tabloid packaging characteristics.

In sum, the current study investigates whether the content (negative versus neutral) and packaging (tabloid versus standard) of television news stories influence information processing of and preferences for these stories among higher and lower educated viewers. Level of education is chosen as indicator of socioeconomic status as it is the most frequently applied indicator in knowledge gap research (cf. Eveland & Scheufele, 2000; Gaziano, 1997; Liu & Eveland, 2005). Since it is known that both information processing and preferences are related to age (cf. Kleemans et al., 2012; Lang et al., 2005), we studied viewers that are in the same age group. The current study is conducted among young viewers with an age varying between 16 and 21 years. This age category received scarce attention in previous research on arousing television news and the knowledge gap (cf. Grabe et al., 2000a, 2008). Moreover, young viewers are a particularly interesting group to study since they are the well or badly informed citizens of the future.

Negative Content, Tabloid Packaging, Education, and Information Processing

A theory that may be helpful in predicting educational differences in the processing of negative content stories or news stories packaged in a tabloid style is a theory describing the processing of mediated messages, i.e., the Limited Capacity Model of Motivated Mediated Message Processing (LC4MP, Lang, 2000; 2006). Basically, the model states that information processing is a complex process that involves various cognitive tasks, each of which requires mental resources. However, people only have a limited number of these resources available. An important characteristic of the LC4MP is the distinction the model makes between controlled and automatic allocation of resources to cognitive tasks. Controlled allocation occurs when viewers intentionally pay attention to a message: viewers then allocate more resources to process the message. In contrast, automatic allocation of resources occurs when message characteristics elicit attention or arousal responses, which are associated with an automatic allocation of additional mental resources to process a message. It is important to note that many of the message characteristics that elicit automatic allocation of additional resources also increase the amount of resources that are required to process the message. This implies that automatic allocation of resources does not necessarily entail improved information processing. Information processing ultimately depends on the balance between the amount of resources that are required to process a message thoroughly and the amount of resources that are actually allocated to this task.

When applying the LC4MP to formulate predictions about educational differences in the processing of arousing news stories, three theoretical considerations should be taken into account. First, controlled resource allocation may influence the processing of arousing news. Given the overall interest in news among higher educated viewers (cf. Ettema, Brown, & Luepker, 1983; Ettema & Kline, 1977; Liu & Eveland, 2005; Prior, 2003; The Pew Research Center for the People & the Press, 2008), it is likely that they intentionally allocate more resources to process television news stories than lower educated viewers. Second, automatic resource allocation may be important. As already mentioned, the inclusion of negative content and tabloid packaging in news stories is expected to elicit the automatic allocation of additional resources to process the news. Third, the resources that are required to process the news story should be taken into account. In particular, the inclusion of negative content and tabloid packaging in news stories may increase the amount of resources required to process a message substantially.

Regarding negative content, a number of studies have found that the presence of negative content generally increases message recall and recognition (cf. Grabe et al., 2000b; 2003; Lang, Bolls, Potter, & Kawahara, 1999; Lang, Newhagen, & Reeves, 1996). However, one might ask whether lower and higher educated viewers will equally benefit from the presence of negative content. In particular, a ceiling effect might occur. According to such an effect, higher educated viewers already allocate a large amount of resources via

controlled processes of information processing. Consequently, the automatic allocation of resources resulting from the presence of negative news might only slightly enhance their information processing outcomes. In contrast, lower educated viewers might take full advantage of negative content, resulting in improved outcomes of information processing. This implies that negative content might have a leveling effect on the knowledge gap. A study by Grabe et al. (2008) provides some support for this reasoning. In that study, both a recall and a recognition measure showed smaller gaps between lower and higher educated viewers following exposure to negative arousing content. However, only the recall measure also revealed the ceiling effect as expected in this line of thought. We nevertheless predict the following:

H1: Differences in information processing outcomes between higher and lower educated viewers are smaller for negative content news stories than for neutral content news stories

Regarding tabloid packaging, a similar argument can be made. Again, a number of studies have found that tabloid packaging of news stories generally increases message recall and recognition (cf. Grabe et al., 2003; Lang et al., 1999), and a similar ceiling effect might be expected. However, no study has tested the role of tabloid packaging in this respect. We predict:

H2: Differences in information processing outcomes between higher and lower educated viewers are smaller for news stories packaged in a tabloid style than for news stories packaged in a standard style

Stories in which negative content is combined with a tabloid style of packaging require a large amount of mental resources, which might easily induce cognitive overload (cf. Grabe et al., 2003; Lang et al., 1999). In this instance, one might ask whether lower and higher educated viewers will be equally vulnerable to cognitive overload. The answer might be that, as lower educated viewers allocate relatively few cognitive resources via controlled processes of information processing, they are more vulnerable to cognitive overload resulting from negative content packaged in a tabloid style than higher educated viewers. Hence, the combination of negative content and tabloid packaging might have a widening effect on the knowledge gap. We expect the following three-way interaction:

H3: Differences in information processing outcomes between higher and lower educated viewers are larger for negative news stories packaged in a tabloid style than for other news stories

In all, the first three hypotheses predict that both the positive and negative effects of negative content or tabloid packaging that were reported in earlier studies (Grabe et al., 2003; Lang et al., 1999) will be more discernible in lower educated viewers than in higher educated viewers.

Negative Content, Tabloid Packaging, Education, and Preferences

A theory that may be helpful in predicting educational differences in preferences for content and packaging of television news stories is a sociological theory that has generated an ongoing stream of research into class-related preferences for arts and various forms of mediated culture, i.e., Bourdieu's (1984) theory of cultural reproduction. Bourdieu argues that parents from higher social classes do not only pass on money to their children (economic capital in Bourdieu's terminology), but also the codes and conventions that are required to understand and appreciate a refined taste (cultural capital). As their children use these as resources throughout their lives in their struggle for social status, they are likely to reproduce social class distinctions.

Bourdieu's theory is relevant to the present study because the distinction between elite and non-elite taste may also be reflected in differential preferences for arousing versus non-arousing media products. In his theory, the basic distinction between elite and non-elite taste is that the latter is characterized by a preference for all the content and packaging characteristics of cultural products capable of instantly evoking emotions. In contrast, elite taste is characterized by a certain detachment from direct experience, and consequently by a rejection of these 'easy' ways of seducing people (Bourdieu, 1984: 30-35).

The arousing versus non-arousing distinction may also be discerned in a number of studies that have applied Bourdieu's theory to explain viewer choices between television genres. For instance, Notten, Kraaykamp, and König (2012) showed that higher educated viewers preferred watching 'highbrow' informative programs, and cultural-artistic programs, while lower educated viewers preferred watching 'lowbrow' films and series, game shows, sports, and soap operas (similar results were obtained by König, Rebers, & Westerik, 2009; Kraaykamp & Van Eijck, 2005). Although we have not found studies supporting the claim, one might argue that, overall, these 'lowbrow' genres are considerably more arousing than 'highbrow' genres, both regarding content (drama, conflict, competition) and packaging characteristics (lively action, fast-pacing).

Applying Bourdieu's theory to predict educational differences in preferences for content and packaging of television news stories, one might predict that lower educated viewers have a higher preference for negative content and tabloid packaging over neutral content and standard packaging in news stories compared with higher educated viewers. This leads to the following hypotheses:

H4: Lower educated viewers have a stronger preference for negative content over neutral content than higher educated viewers

H5: Lower educated viewers have a stronger preference for tabloid-packaged news stories over standard-packaged news stories than higher educated viewers

Method

An experiment with a 2 (content: neutral vs. negative) \times 2 (packaging: standard vs. tabloid) \times 2 (educational level: high vs. low) \times 4 (blocks of stimulus materials) mixed design was carried out. Content and packaging were within-subjects variables, educational level was a between-subjects variable. Block, a between-subjects variable, refers to the four groups of news stories that were used as stimulus materials in the experiment.

Stimulus Materials

The stimulus materials consisted of sixteen news stories. Eight news stories were selected: four with a neutral topic (e.g., about culture or economics) and four with a negative topic (e.g., about crime or accidents). A pilot study was conducted among 75 participants, with the aim to test the expected negative and neutral valence of the news stories. On a scale ranging from 1 (negative) to 7 (positive), participants rated the valence of each story. The mean scores for the neutral stories ($M = 4.21$; $SD = .74$) and negative stories ($M = 2.01$; $SD = .17$), and the significant difference between them ($t(14) = -8.47$; $p = .009$), confirmed the categorization of the news stories as either negative or neutral. A tabloid version (including sound effects, fast-pacing, and other editing techniques) and a standard version (with a lower number of camera changes and without using decorative editing techniques such as wipes and dissolves) were created for each story. The number of camera changes was significantly ($t(14) = -11.84$, $p = .001$) lower for the standard-packaged stories ($M = 8.0$; $SD = 1.1$) than for tabloid-packaged stories ($M = 17.6$; $SD = 2.0$). The audio information was the same in both formats and the pictures that were added to create a tabloid-packaged style were by and large equivalent to the pictures in the standard-packaged news stories. Consequently, the manipulation of the formal features did not affect the audio content of the news stories, and it hardly affected the visual content of the stories. The sixteen news stories were divided into four blocks of four news stories, each with a unique combination of content and packaging (i.e., neutral-standard, neutral-tabloid, negative-standard, and negative-tabloid). Each participant watched the stories of one block.

To diminish possible effects of other factors than content and packaging, we took several aspects into account. To prevent primacy and recency effects, the sequence in which the television news stories were presented within the blocks varied randomly between the participants. As a result, each participant in the same educational level group watched the stories in a unique, randomly assigned order. Moreover, the selected news stories did not contain production errors or a slip of the tongue by the news reporter. The anchorman's introduction to the news story was replaced by a short, written introduction to the story. All selected news stories were broadcast in the same period (i.e., between September 2007 and March 2008) by Dutch public service broadcaster NOS. All stories contained domestic news, and none of the topics in the stories received extraordinary media attention. Finally, the total

story length of each news story ($M = 88.00$, $SD = 11.55$), and thus of each block, was similar.

The 9-point Self-Assessment Manikin (SAM) arousal pictorial scale (Lang, Greenwald, Bradley, & Hamm, 1993) was used as manipulation check for the levels of arousal that were elicited by the content and packaging of the news stories. Participants rated on a scale ranging from 1 (bored) to 9 (excited) the perceived level of arousal for each news story they watched. As theoretically expected, both negative ($M = 5.49$, $SE = .18$) versus neutral ($M = 3.34$, $SE = .18$) news stories ($F(1,88) = 144.19$, $p < .001$, $\eta^2 = .62$), and tabloid-packaged ($M = 4.61$, $SE = .18$) versus standard-packaged ($M = 4.21$, $SE = .18$) stories ($F(1,88) = 4.76$, $p < .05$; $\eta^2 = .05$) were significantly different with regard to the arousal they elicited. In addition, the marginally significant interaction between content and packaging ($F(1,88) = 3.79$, $p = .06$, $\eta^2 = .04$) showed for both negative content and neutral content stories that the tabloid-packaged versions of these stories elicited more arousal than the standard-packaged versions of the stories. We may thus conclude that the choice for and editing of the stimulus materials was successful with regard to the goal of the current study.

Participants and Procedure

A total number of 89 participants took part in the current study. The higher educated group ($N = 44$) consisted of first year university students. The lower educated group ($N = 45$) consisted of last year students at a school for vocational education. This implies that the latter group followed tertiary education at a lower level. Moreover, these students also attended a lower level of education in previous years. After elementary education (usually at the age of 12), they followed pre-vocational secondary education (the lowest level of secondary education), with a duration of four years. The university students attended pre-university education (the highest level of secondary education), with a duration of six years. We may thus argue that we optimized the difference in education level between the two groups within this age range. Although the mean age of the two groups of participants was significantly different ($t(87) = 3.35$, $p = .001$), this difference was relatively small. The higher educated participants had a mean age of 18.2 years ($SD = .82$; range 17 to 21 years), the lower educated participants had a mean age of 17.4 years ($SD = 1.27$; range 16 to 21 years). More women ($N = 56$; 24 low educated, 32 high educated) than men ($N = 33$; 21 low educated, 12 high educated) participated in the study. They were equally divided over the four groups of news stories: each block of stories was watched by 14 women and 8 or 9 men.

Participants were individually assigned to a desktop computer in a room where groups of twelve to eighteen people participated in the experiment at the same time. All participants received a headset and were placed with empty seats directly left and right of them. In this way, participants were distracted as little as possible by the other participants in the same room. The size of the computer screen (17 inches), the distance to the screen (approximately 27 inches), sound volume, and viewing angle were equivalent for all participants.

The participants first received a brief spoken introduction before the experiment started. Participants were asked to watch the news stories like they would do at home. After each news story, the participants answered a few questions such as the experienced feeling of arousal. After watching all news stories in the experiment, an online questionnaire was used to continue the experiment.

Variables

Recognition. To measure information processing, we used two recognition measures: visual and audio recognition. To measure visual recognition, sixteen 'target' and 'foil' stills were shown to each participant: half of these stills appeared in one of the stories the participants watched (targets), the other half did not appear in the stories (foils). The foils consisted of stills that were comparable to stills that were originally included in the stimulus materials. For instance, foils of a news story about goods traffic in the Port of Rotterdam showed stills of the Port of Rotterdam that did not appear in the story, while the target stills showed images of the Port of Rotterdam that were present in the story. Participants indicated whether they saw the still in one of the news stories or not. The duration in minutes that the stills appeared in the standard ($M = .04$; $SD = .02$) and the tabloid versions ($M = .03$; $SD = .01$) of the news stories was similar ($t(30) = 1.69$; $p = .10$). This implies that possible differences in visual recognition are not the result of a difference in time exposed to the stills in either the standard- or the tabloid-packaged version of a news story. The second recognition test focused on audio recognition. Sixteen 'true' and 'false' statements regarding the news stories were asked, half of them matched and half of them did not match with the audio information in the news stories. Participants were asked to assess whether the statement was true or not. The statements were based on the five journalistic W's: who, what, where, when, why, and on the consequences the news event had (cf. Findahl & Hoijer, 1985). In general, statements that did not match with the audio information consisted of information that was opposite to what was told in the original story. For instance, one story reported on a decrease in economic trust among citizens, while the false statement said that the economic trust increased.

Recognition tests were analyzed using signal detection theory (Shapiro, 1994). We used the sensitivity measure (d') to calculate recognition memory. To this end, we included both information that was earlier seen by the participant and information the participant had not seen before. As a result, we were able to calculate both the proportion of 'hits' and the proportion of 'correct rejections'. The sensitivity (d') may be calculated as the mean score of these two proportions: (proportion of hits + proportion of correct rejections) / 2. The mean sensitivity for the visual recognition was .68 ($SD = .12$). The mean sensitivity of audio recognition was .65 ($SD = .16$).

Preferences. Two indicators were used to measure the preferences of young viewers regarding television news stories. The first measure, which we labeled 'choosing', was measured after the participant had watched all four news stories. The introductory frames

of two of the stories were shown and the participants were asked to imagine that they could watch one of these two stories again. They had to opt for the story of their preference. Participants had to make this choice six times, i.e., for all six pairs that could be created out of the four stories each participant had to watch. For the analysis it was calculated how often a participant chose for each news story. These scores ranged from 0 (never chosen for that story) to 3 (always chosen for that story). There are no mean scores and standard deviations shown for this variable, because these would relate to the number of choices made and not to the choices themselves. Since each participant made the same number of choices, no differences in mean scores could be observed.

The second measure of preference is labeled 'staying tuned'. After each news story, participants indicated for this story the likelihood in percentages that they would switch to another channel if they had that opportunity. For the analysis, the scores on this variable were subtracted from 100%. As a result, the variable indicates the chance a participant would stay tuned during the news story ($M = 54.21\%$; $SD = 18.88$).

Data Analyses

Four separate analyses of variance (GLM repeated measures) were performed to test the hypotheses. Visual recognition, audio recognition, choosing, and staying tuned were one by one defined as dependent variable. The model specification was based on content, packaging, and educational level, and included gender as control variable. As intended, the block of news stories to which each participant was assigned did not have an influence on the results and was therefore left out of consideration in the analyses. A comparison of the F tests of all main and interaction effects between models with and without the block variable showed that including this variable did not substantially alter the effects of the variables in the models.

Results

Recognition

The results for visual recognition showed, first, a main effect for packaging ($F(1,85) = 4.57$; $p < .05$; $\eta^2 = .05$). Participants had a better recognition for pictures in standard-packaged news stories ($M = .72$; $SE = .02$) than for pictures in tabloid-packaged news stories ($M = .66$; $SE = .02$). Second, a significant interaction between content and level of education (see Figure 1) was found ($F(1,85) = 4.60$; $p < .05$; $\eta^2 = .05$). Contrast analyses showed that higher educated viewers had a better visual recognition ($p < .05$) for news stories with a negative content ($M = .73$; $SE = .02$) than for news stories with a neutral content ($M = .66$; $SE = .03$). Lower educated young viewers did not differ in their performance with regard to negative ($M = .68$; $SE = .02$) and neutral ($M = .69$; $SE = .02$) news stories. In addition, the difference between higher and lower educated viewers with regard to negative content was

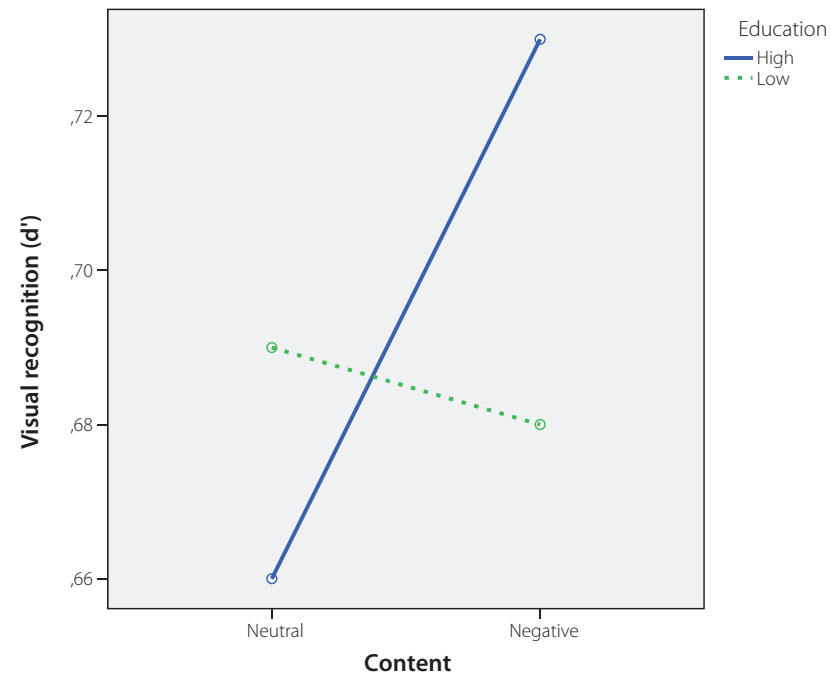


Figure 1 Visual recognition of television news content for higher and lower educated young viewers

marginally significant in favor of the higher educated viewers ($p = .05$), while they did not differ with regard to the neutral stories. This is opposite to the expectation as formulated in Hypothesis 1.

Third, a main effect for gender was found ($F(1,85) = 6.72$; $p < .05$; $\eta^2 = .07$). Men performed better ($M = .72$; $SE = .02$) than women ($M = .66$; $SE = .02$). In addition, an interaction between content and gender was found ($F(1,85) = 8.29$; $p < .01$; $\eta^2 = .09$). Contrast analyses showed a better visual recognition ($p < .001$) for men with regard to negative content ($M = .77$; $SE = .03$) than for women ($M = .64$; $SE = .02$). Concerning neutral content, men ($M = .68$; $SE = .03$) and women ($M = .67$; $SE = .02$) did not differ in visual recognition. Moreover, within the group of male participants, visual recognition was significantly higher for negative than for neutral stories ($p < .01$), whereas no differences in visual recognition between negative and neutral stories were found within the group of female participants. Finally, we found a three-way interaction between content, level of education, and gender ($F(1,85) = 5.14$; $p < .05$; $\eta^2 = .06$). The results for this interaction were in line with the previously described results: higher educated men performed best with

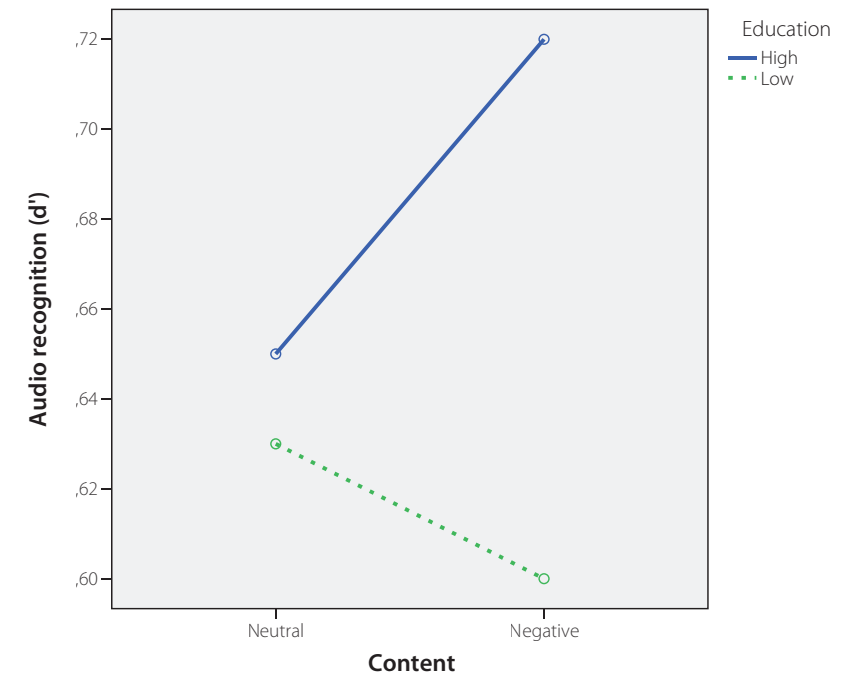


Figure 2 Audio recognition of television news content for higher and lower educated young viewers

regard to negative content, while the differences in performance for negative versus neutral content were almost absent for higher and lower educated women and for lower educated men. Moreover, men had a better overall performance for both negative and neutral content than women.

The results for audio recognition showed a main effect for level of education ($F(1,85) = 4.18$; $p < .05$; $\eta^2 = .05$). Higher educated viewers had a better average score ($M = .69$; $SE = .03$) for audio recognition than lower educated viewers ($M = .62$; $SE = .02$). In addition, an interaction between content and level of education ($F(1,85) = 5.87$; $p < .05$; $\eta^2 = .07$, see Figure 2) was found. Within the higher educated group, audio recognition was significantly better ($p < .05$) for negative ($M = .72$; $SE = .03$) than for neutral ($M = .65$; $SE = .03$) stories, while within the lower educated group, no significant differences were found between negative ($M = .60$; $SE = .03$) and neutral ($M = .63$; $SE = .03$) stories. In addition, higher educated young viewers had a significantly better audio recognition ($p < .01$) than lower educated young viewers with regard to negative content, while they did not differ in audio recognition for neutral content. These results are in line with the

results for video recognition. The packaging of the news and gender did not show to affect audio recognition.

The results for both visual and audio recognition did not support the hypotheses that were formulated. First, we expected smaller differences in information processing outcomes between higher and lower educated viewers for negative content stories than for neutral stories (Hypothesis 1), but we found the opposite. For packaging (Hypothesis 2), no differences in information processing outcomes between higher and lower educated viewers were found. In addition, the expected three-way interaction between content, packaging, and level of education (Hypothesis 3) was not significant.

Preferences

For choosing, a strong main effect for content was found ($F(1,85) = 114.92; p < .001; \eta^2 = .58$). Negative content stories were chosen more often ($M = 2.07; SE = .05$) than neutral content stories ($M = .93; SE = .05$). We did not find a main effect for the packaging of the news. However, there was an interaction between content and packaging ($F(1,85) = 4.92; p < .05; \eta^2 = .06$). The combinations of negative content and a standard style of packaging ($M = 2.15; SE = .09$) and negative content and a tabloid style of packaging ($M = 2.00; SE = .11$) in news stories were most often chosen. We need to mention however that the difference between these two types of negative content stories was not significant ($p = .38$). Neutral stories packaged in a tabloid style ($M = 1.10; SE = .10$) and in a standard style ($M = .76; SE = .11$) were least chosen. Moreover, there was a marginally significant difference in choosing between the tabloid- and standard-packaged neutral stories, in favor of the tabloid-packaged ones ($p = .06$). The results thus showed that differences in choosing were largely due to preferences for negative over neutral stories, while the packaging of the story only slightly affected choosing.

An interaction between educational level and content of the news stories was another finding for the choosing variable ($F(1,85) = 4.15; p < .05; \eta^2 = .05$). Negative content was chosen above neutral content by both higher (respectively $M = 1.96; SE = .08; M = 1.04; SE = .08$) and lower educated viewers (respectively $M = 2.18; SE = .07; M = .82; SE = .08$). The difference in news content preferences was equal for negative and neutral stories ($\Delta M = .22; p < .001$). However, the results showed that the preference for negative content over neutral content is stronger for the lower educated viewers ($\Delta M = 1.35; p < .001$) than for the higher educated viewers ($\Delta M = .92; p < .001$) as the lower educated viewers both chose negative content more often and neutral content less often than higher educated viewers. There was no interaction between packaging and educational level, but an interaction between content, packaging, and educational level was found ($F(1,85) = 4.69; p < .05; \eta^2 = .05$). This interaction showed a preference for negative over neutral stories for both higher and lower educated viewers. The packaging of the news story was only relevant for preferences of the higher educated viewers in case of neutral content. Neutral stories packaged in a standard design were less chosen by these viewers ($M = .69; SE = .16$)

than neutral stories in a tabloid-packaged style ($M = 1.39; SE = .15$). Finally, the content by gender interaction reached significance ($F(1,85) = 13.36; p < .001; \eta^2 = .14$). Both men and women preferred negative content ($M_{men} = 1.88; SE_{men} = .09; M_{women} = 2.26; SE_{women} = .06$) over neutral content ($M_{men} = 1.13; SE_{men} = .09; M_{women} = .74; SE_{women} = .06$), but this difference is bigger for women ($\Delta M = 1.53; p < .001$) than for men ($\Delta M = .75; p < .001$).

The second measure that was used as indicator for preferences, 'staying tuned' showed a main effect for content ($F(1,85) = 107.36; p < .001; \eta^2 = .56$). Participants were much more likely to stay tuned while watching negative content ($M = 80.21; SE = 2.37$) than neutral content ($M = 41.05; SE = 2.71$). In addition, an interaction between content and gender was found ($F(1,85) = 4.19; p < .05; \eta^2 = .05$), showing that both men ($p < .001$) and women ($p < .001$) preferred negative content over neutral content. However, only with regard to neutral content, this difference was significant ($p < .001$) between men ($M = 46.96; SE = 4.34$) and women ($M = 35.14; SE = 3.24$). For negative content, no differences were observed between men ($M = 70.33; SE = 3.80$) and women ($M = 70.07; SE = 2.84$).

With regard to hypotheses 4 and 5, we found that news content and packaging preferences did not substantially differ between higher and lower educated viewers. Both measures of preference showed that news with a negative content was preferred over news with a neutral content, although this preference was shown to be somewhat stronger for the lower educated viewers. For packaging, the only significant finding was that higher educated viewers chose tabloid packaging above standard packaging in case of neutral content stories. Since this weak three-way interaction was only observed for the choosing variable, we conclude that packaging does not play a major role with regard to news preferences of higher and lower educated viewers. In all, hypotheses 4 and 5 should be rejected.

Discussion

The background of the current study was the question whether message-related variables might moderate the potential knowledge gap effects of television news. To this end, we studied whether higher and lower educated young viewers are differentially affected by the inclusion of negative content and tabloid packaging in television news stories. The first conclusion from this study is that negative content in television news stories may indeed be considered a moderator, as it increases the knowledge gap between higher and lower educated young viewers. Compared with neutral content, negative content resulted in better recognition among higher educated young viewers, whereas the recognition of lower educated viewers did not improve. The second conclusion from this study is that preferences for news content or packaging do not play a role in explaining knowledge gaps between these young viewers. Higher and lower educated young viewers hardly differed in their overall preference for negative news.

The moderating effect of negative content on differences in information processing of news between higher and lower educated viewers was previously found by Grabe et al. (2008). Salient, however, is that we found that negative content widens the knowledge gap between higher and lower educated viewers, whereas Grabe and colleagues found the opposite, namely that negative content was able to narrow the gap. Age differences between the participants in the studies (only 14% of the participants were below 30 in the study of Grabe et al., 2008) and associated differences in prior knowledge might serve as explanation for this. Throughout their lives, young viewers' general knowledge will increase as a result of both life experiences and news consumption. This knowledge makes the task of processing television news stories less demanding in terms of cognitive resources, since the information presented will be generally more familiar. As a result, young viewers will become less likely to suffer from cognitive overload as they are about to reach adulthood.

In both the Grabe et al. (2008) study and the present study, the lower educated participants might already be expected to allocate relatively few cognitive resources via controlled processes of information processing, and hence to be more at risk of cognitive overload than the higher educated participants. However, the lower educated participants in the present study might be even more at risk than the lower educated participants in the Grabe et al. (2008) study as they were younger, and consequently had less prior knowledge. This difference may explain why the inclusion of negative content proved to be beneficial to the lower educated participants in the Grabe et al. (2008) study, whereas it proved to induce cognitive overload in the present study. To test this explanation, future studies may include age and prior knowledge as moderators.

The finding that both higher and lower educated viewers prefer negative content over neutral content seems to refute the claim made by Bourdieu (1984) regarding cultural reproduction of taste as explanation for news preferences. Apparently, the parents from the higher educated young adults in the current study did not pass on their preference for 'decent' news content to their children. One might argue that, overall, parents' opportunities to transmit their taste for more 'highbrow' media messages decreases as the proliferation of media such as internet, smart phones, and tablets give today's young adults ample possibilities to consume media products without adult supervision. In addition, these young viewers are raised in an increasingly arousing media environment (cf. Tapscott, 2009) and are consequently, more than their parents, at ease with arousing media content. This might explain why the parents from our higher educated youngsters failed to transmit their preference for neutral news content to their children.

Surprisingly, merely one effect of news story packaging was found with regard to both recognition and preferences. A possible explanation is that the differences in tabloid characteristics between standard and tabloid stories in this study were too small. Compared with the United States, for instance, Dutch television news still includes a relatively low number of tabloid characteristics (cf. Hendriks Vettehen, Nuijten, & Peeters,

2008; Lang et al., 1999). As a result, we were somewhat limited in editing standard stories to a tabloid style since we wanted to present the stimulus material in a realistic format.

We controlled for gender in the current study and although we did not formulate specific expectations with regard to this variable, some interesting results were found. Visual recognition was better among men than among women. In particular negative content was better recognized by male viewers, compared with both neutral content and with female viewers. These results are in line with results in previous research regarding men's performance of news (cf. Grabe & Kamhawi, 2006). The results for preferences showed that both men and women prefer negative over neutral news. This is somewhat surprising since previous research showed no influence of gender on the preferences for news content (Kleemans et al., 2012) or showed that women have a lesser preference for negative content news than men (Grabe & Kamhawi, 2006; Kamhawi & Grabe, 2008). The design of the current study might possibly explain these findings. First, we did not incorporate positive news stories in the current study, but we know from previous research that women show avoidance responses to negative content stories (cf. Klein, 2003; Slone, 2000) and that they prefer positive content stories (cf. Grabe & Kamhawi, 2006; Kamhawi & Grabe, 2008). It might be that women prefer negative content over neutral content, but that their preference for positive stories is even higher. Second, we only studied young viewers in the current study. Past research showed that especially young viewers, regardless of their gender, prefer negative content (Kleemans et al., 2012). Including a broader range of age categories might be recommended to see whether age matters in this respect.

Based on the current study, it can be argued that negative content increases the attractiveness of television news among young people as they prefer such stories. However, it is not helpful in narrowing the knowledge gap. Since negative content seems to increase in today's television news (cf. Hendriks Vettehen et al., 2011; Hjarvard, 2000; Hvitfelt, 1994; Slattery, Doremus, & Marcus, 2001; Slattery & Hakanen, 1994) the results may challenge scholars and journalists to think about the question how especially lower educated young viewers might be informed about important social issues. If the use of negative content in television news further increases, a widening of the knowledge gap could be expected. This will make the lower educated young people the 'badly' informed citizens of the future.

Chapter 7

The Influence of Negative Content and Tabloid Packaging on Viewer Perceptions of News Performance¹

This study investigated how television viewers of different ages perceive negative news stories as opposed to neutral news stories, and news stories packaged in a tabloid style compared with standard-packaged stories. Participants (N = 288) evaluated the news stories on two related yet conceptually distinct dimensions: perceived news quality and perceived sensationalism. Results showed that including negative content characteristics and packaging of neutral content in a tabloid style increased the perceived sensational character of news stories. Regarding perceived news quality, the results were more subtle. Negative content stories were perceived as having less news quality than neutral content stories, but this was only the case among younger and middle-aged viewers. The packaging of the news story did not affect perceptions of news quality.

¹ *This chapter is submitted for publication as:* Kleemans, M., Hendriks Vettehen, P.G.J., Beentjes, J.W.J., & Eisinga, R. (2012). The influence of negative content and tabloid packaging on viewer perceptions of news performance

The Influence of Negative Content and Tabloid Packaging on Viewer Perceptions of News Performance

Arousing television news is on the rise. Unmistakably, today's news stories display an increasing presence of negative story topics and images, and an increasing flashier style, including fast-pacing and decorative editing techniques (cf. Hendriks Vettehen, Beentjes, Nuijten, & Peeters, 2011; Schaefer & Martinez III, 2009; Slattery, Doremus, & Marcus, 2001). However, arousing television news is also under fire. Politicians like Tony Blair (2007) and Al Gore (2007) blamed today's news stories amongst others for being sensational, inaccurate, unbalanced, and just looking for anything that thrills. Scientific scholars employed pejorative labels while studying the subject, for instance sensationalism (Grabe, Zhou, & Barnett, 2001; Hendriks Vettehen, Nuijten, & Beentjes, 2005; Uribe & Gunter, 2007), tabloidization (Bek, 2004), 'bad' news (Newhagen & Reeves, 1992), and infotainment (Graber, 1994). And finally, incidents like the recent report by BBC's *Newsnight* presenting false allegations toward a senior political figure being a pedophile (Leigh, 2012) are likely to stir up the debate on arousing news.

The generally critical debate regarding arousing news raises questions about today's role of television news as a news source that citizens may feel comfortable with. Of particular interest is the question how ordinary citizens perceive such news. Do they still feel at ease with television news stories as a source of information if these stories are saturated with negative content and packaged with flashy bells and whistles? The current study aims to investigate how viewers perceive the performance, i.e., the perceived quality in terms of several evaluative criteria (cf. Hollifield, 2006; McQuail, 1992), of the two categories of arousing news that are commonly distinguished in the literature: negative content and flashy produced news (e.g., Grabe et al., 2001; Grabe, Lang, & Zhao, 2003; Hendriks Vettehen et al., 2005; Kleemans, Hendriks Vettehen, Beentjes, & Eisinga, 2012; Wang & Cohen, 2009).

We will study viewer perceptions regarding the performance of negative content and flashy produced news among viewers that differ in age. The reason for this choice is that perceptions of this news might be a matter of generation. Many older news viewers will have witnessed the increase in arousing news over the years, while younger viewers have grown up with arousing news and are likely more at ease with it (cf. Tapscott, 2009). Recent studies have already revealed differences between older and younger viewers in their preference for negative content and flashy produced news (Kleemans et al., 2012; Lang et al., 2005). This study asks whether they also have different perceptions of this news.

Negative Content and Tabloid Packaging

A number of past studies have defined arousing news as stories including content and packaging characteristics that have the capability to elicit arousal and attention responses in viewers (Grabe et al., 2001, 2003; Hendriks Vettehen, Nuijten, & Peeters, 2008; Lang, Bolls, Potter,

& Kawahara, 1999). Several authors have argued that survival-relevant stimuli are prominent examples in this regard. As a result from an evolutionary evolved human habit, people are used to survey their environment for potential threats (cf. Shoemaker, 1996; Davis & McLeod, 2003). Stimuli in news that refer to such threats therefore attract audiences and elicit arousal. Examples are stories and pictures referring to crimes, violence, riots, fires, and disasters (Adams, 1978; Grabe et al., 2001; Newhagen & Reeves, 1992; Slattery & Hakanen, 1994). Almost all of the arousing content features refer to negative events. We therefore study negative content features in the current study, and labeled this category *negative content*.

Packaging characteristics of news stories that contribute to a flashy style of the stories may also be considered arousing and attention-grabbing, in particular as they represent change or unexpected occurrences (cf. Lang, 2000). For instance, fast-pacing, sound effects, music onsets, and decorative editing techniques such as wipes, fades, and dissolves, characterize changes in the audiovisual materials that have been shown to elicit attention and arousal responses in viewers (cf. Grabe et al., 2003; Grabe, Zhou, Lang, & Bolls, 2000; Lang et al., 1999). From now on, we label this category *tabloid packaging* as previous research did that as well (Grabe et al., 2003; Hendriks Vettehen et al., 2005; Kleemans et al., 2012).

News Media Performance

Media performance refers to the assessment of mass media using a range of evaluative criteria (McQuail, 1992). These criteria are mainly derived from professional goals and standards. With regard to news, Hollifield (2006) argued that news media performance is primarily measured by its 'quality'. This quality can be assessed in different ways. First, as noted by Hollifield (2006), scholars have used indicators at the level of the organization. In these studies, news media performance was assessed by focusing on indicators such as editorial independence and impartiality. Second, financial indicators have been applied: for example, the amount of non-advertising copy, the number of in-depth stories, and the amount of time devoted to news programming were studied, since these indicators require financial investments in the news. Third, quality measures at the news content level have been studied (cf. Hollifield, 2006). Previous research used at least two different ways to assess news media performance at this level. Some studies tried to measure the quality of news as objectively as possible. Examples are content analysis studies in which criteria such as fairness and balance in news are measured by analyzing whether both sides of a conflict are covered in news stories (cf. Fico & Cote, 1999; Lacy, Fico, & Simon, 1991). In addition, scholars assessed public perceptions of news quality as indicators for news media performance. In these studies (e.g., Fico, Richardson, & Edwards, 2004; Grabe et al., 2000b; 2003; Wang & Cohen, 2009), the *perceived* quality of news stories is assessed. The current study joins this latter line of research.

A variety of concepts and measures have been used in previous research on the media performance of news content. Objectivity is perhaps the most frequently mentioned

criterion in assessing news media performance. Other criteria that have often been applied to news are accuracy and completeness, reliability, credibility, factualness, fairness, balance, believability, informativeness, comprehensive coverage, presentation of multiple points of view, and avoidance of sensationalism (cf. Hollifield, 2006; McQuail, 1992). The current study will follow this wide range of evaluative criteria when studying viewer perceptions of news media performance.

Viewer Perceptions Regarding News Performance

In formulating expectations about viewer perceptions of negative content and tabloid-packaged news stories, past research on news media credibility may serve as an inspiration. The numerous definitions of credibility that appeared in these studies focused on aspects such as trustworthiness, fairness, and accuracy (cf. Thorson, Vraga, & Ekdale, 2010). Although the current study focuses on news media performance, a concept that is wider than the concept of news credibility (cf. Hollifield, 2006; McQuail, 1992), the studies on credibility may provide some guidance in formulating expectations regarding viewer perceptions of news media performance.

Past studies on news credibility showed that, among other factors, content and packaging of messages may affect viewer perceptions of message credibility. For example, Arpan (2009) studied exemplification of the public opinion via layperson quotes. She found that more negative quotes resulted in weaker perceived credibility of the news stories. In addition, a bigger size of the screen (Bracken, Neuendorf, & Jeffres, in Bracken, 2006) and news stories with high levels of pacing combined with structural features (Lang, Potter, & Grabe, 2003) are examples of features that negatively affected viewer perceptions of credibility. These content and packaging characteristics have in common that they may be considered arousing (cf. Hendriks Vettehen et al., 2008; Lang et al., 2003; Reeves, Lang, Kim, & Tatar, 1999), and are therewith related to the negative content and tabloid packaging characteristics that are central to the current study. Findings from news credibility studies suggest thus that arousing news characteristics may negatively influence viewer perceptions regarding credibility – and possibly also a wider range of perceptions with regard to news media performance.

Beyond news credibility research, a few studies explicitly paid attention to viewer perceptions regarding the media performance of arousing (e.g., negative) content and tabloid-packaged news stories. Grabe and colleagues (2000b) assessed the differences in viewer perceptions of standard- and tabloid-produced stories by studying how believable and informative viewers perceived these news stories. Results showed that participants perceived the standard-packaged stories as more informative and believable. Based on this study, it can be concluded that viewers have more negative perceptions of tabloid-packaged news. In another study (Grabe et al., 2003), participants watched stories that differed in both packaging (standard or tabloid) and content (calm or arousing), and rated, among other things, the perceived objectivity, informativeness, and believability of the

stories. Concerning the packaging of the stories, again support was found for the expectation that tabloid-packaged stories were perceived as less believable. Moreover, viewers rated these stories as less objective. In contrast to the Grabe et al. (2000b) study, tabloid-packaged stories were not perceived as less informative than standard stories. Regarding content, arousing stories were perceived as less informative compared to calm content stories. Content did not affect the perceived objectivity and believability of the different news stories. In all, this study provided additional evidence that viewers are skeptical towards arousing news stories.

In a recent study, Wang and Cohen (2009) assessed the performance of negative content and tabloid-packaged news by focusing on viewers' perceptions of sensationalism. Wang and Cohen asked respondents to indicate the extent to which they believed that television news featured topics that are generally considered sensational (e.g., gossip news, crime news, accidents, and disasters), and the extent to which they believed that television news featured a number of production features (e.g., background music, pacing, and editing techniques). Moreover, respondents indicated the extent to which they perceived television news to be sensationalist. The findings from the study showed that the viewers' estimations of sensational news topics did not correlate with their perceptions of television news as sensationalist. However, the more audio, visual, and editing techniques were estimated to be included in the television news, the more sensationalist the news was perceived to be. The Wang and Cohen (2009) study seems to confirm the viewers' negative perceptions of tabloid style production features in the news that was also found in other studies (cf. Grabe et al., 2000b; 2003; Lang et al., 2003). Regarding perceptions of content, the zero effect on content aspects in the Wang and Cohen study seems to be somewhat different from the results that were reported in other studies (Arpan, 2009; Grabe et al., 2003).

One should be cautious, however, in comparing the findings from the Wang and Cohen (2009) study with the other studies. First, there are substantial differences in the study designs. In particular, most studies conducted experiments in which participants were exposed to different types of news stories (cf. Arpan, 2009; Grabe et al., 2000b; 2003; Lang et al., 2003), after which they evaluated the stories. In contrast, Wang and Cohen (2009) conducted a telephone survey in which respondents were required to make estimations about a number of news content and packaging characteristics; respondents did not actually watch news stories. Second, the studies included different measures of news media performance. As already noted, studies on media credibility have a more narrow definition compared with media performance studies. Grabe et al. (2000b, 2003) included merely three measures of performance: the informativeness, believability, and (in the 2003 study) the objectivity of the news. Wang and Cohen (2009) included a scale of 'perceived sensationalism'. This scale was based on eight performance aspects (accurate, responsible, credible, important, professional, interested in arousing viewers, invading the viewers' privacy, and gossiping) of which in particular the 'credibility' and 'accuracy'

aspects seem to be quite similar to the measures as used in media credibility research and the 'believability' aspect from the Grabe et al. studies.

The current study extends past research by measuring a greater variety of indicators of news media performance at the same time. To be more specific, this study will include perceptions of credibility, perceptions of news performance as used by Grabe and colleagues, and indicators of perceived sensationalism, the central concept in the Wang and Cohen study. As the general tendency in previous research was that negative content and tabloid-packaging features negatively affect viewer perceptions, we pose the following hypothesis:

H1: Viewers perceive the performance of negative content and tabloid-packaged news stories as more negative than neutral content and standard-packaged news stories

Only one of the studies that paid attention to the influence of news content and packaging on viewer perceptions of news media performance incorporated age differences (Wang & Cohen, 2009). Their study showed that younger viewers (18-39 years) perceived television news as less sensational than middle-aged (40-59 years) and older viewers (above 60 years). Due to the methodological limitations of this study, as we mentioned earlier, this study provides only preliminary support for the moderating role of age in the relationship between content and packaging features in stories and viewer perceptions of new media performance.

Past research on media credibility may provide additional guidance in formulating expectations regarding age differences in viewer perceptions of news media performance. With regard to age, studies generally showed that older audiences tend to be more critical towards news media, whereas younger viewers are more likely to evaluate news media as credible (cf. Bucy, 2003; Johnson & Kaye, 2000; Metzger, Flanagin, Eyal, Lemus, & McCann, 2003; Robinson & Kohut, 1988). This skepticism among older viewers might be explained by the finding that older viewers are more news literate and that they have more life experience compared with less seasoned audiences (cf. Bucy, 2003; Robinson & Kohut, 1988).

In all, based on previous research we expect that:

H2: Older viewers have more negative perceptions regarding the media performance of negative content and tabloid-packaged news stories (as opposed to neutral content and standard-packaged news stories) compared with younger viewers

Method

An experiment was conducted using 16 Dutch public service news stories as stimulus materials². We selected eight stories containing negative content and eight stories containing neutral content. Examples of negative content stories were stories about a pupil murdered at school and riots at the turn of the year. Neutral content stories reported, for instance, on buildings registered as national monuments and on the increase in goods traffic in the Port of Rotterdam. In a pilot study ($N = 51$), participants rated the valence of the news stories on a scale from 1 (negative) to 7 (positive). The valence scores for the neutral ($M = 4.41$; $SD = .95$) and the negative ($M = 2.85$; $SD = .81$) content categories supported the distinction. Half of the neutral and half of the negative stories that we selected included tabloid packaging; the other stories were packaged in a standard style. To enlarge the differences in packaging between the tabloid and standard stories, we edited a few of the stories by, for instance, adding or excluding some camera shots or sound effects. As a result, tabloid-packaged stories included a significantly larger number ($t(7) = 10.73$, $p = .001$) of camera shots per minute ($M = 14.08$; $SD = 1.26$) compared with standard-packaged stories ($M = 7.79$; $SD = .56$). Moreover, a combination of music onsets, sound effects, fades, wipes, and dissolves was present in the tabloid stories, but not in the standard-packaged stories. Several factors were held constant to minimize their potential influence. For instance, all stories presented local news, had a comparable story length ($M = 95.31$; $SD = 10.78$, measured in seconds), and did not include production errors or a slip of the tongue by the reporter. Topics that had received extraordinary media attention or controversial topics were not incorporated in the stimulus material. The spoken introductions by anchorpersons were replaced by screenshots with written introductions. For each news story, this written introduction summarized in one sentence the information that was originally given by the anchorperson, as viewers needed a short introduction to contextualize the news story.

Participants and Procedure

A total number of 288 higher educated participants took part in this study. They were equally divided over three age groups. To represent young viewers (with an age range of 18 to 26 years), 96 university students were recruited ($M = 21.70$; $SD = 2.05$; 28 males; 68 females). To represent middle-aged viewers (with an age range of 30 to 50 years), 96 academic employees took part in the study ($M = 41.91$; $SD = 4.85$; 56 males; 40 females). The oldest group (aged 60 years and above) consisted of 96 former academic employees or other higher educated elderly people ($M = 68.82$; $SD = 6.98$; 56 males; 40 females). The 16 news stories that were selected for the study were divided into four groups. Each

group consisted of four stories, one for each combination of content and packaging. Each participant watched the stories of one group, presented in a random order. Since the participants were equally divided over the group of stories, each group was watched by 24 participants within each age category. Male ($N = 140$) and female ($N = 148$) participants were almost equally present in the four different groups of news stories.

The experiment was conducted in an individual setting. A 15.4-inch screen was used to show the news stories to each participant. Except for a few elderly participants who reported problems with seeing or hearing the news stories, the sound volume, distance to the screen (approximately 24 inches), and viewing angle were similar for each participant. The participant first answered a few general questions about for instance age and gender, then watched the first story, and finally answered some questions intended to measure perceptions towards the story. This combination of watching a story, and answering some questions about it was repeated for all four news stories that the participant had to watch.

Dependent Variables

Participants were asked to rate seven statements about the perceived news media performance of the stories on a scale ranging from 1 (totally disagree) to 7 (totally agree). Out of the tremendous list of news media performance indicators, we searched for a manageable number of (contra-)indicators that were able to shed light on the relationship between content and packaging characteristics in news stories on the one hand and perceived news media performance on the other hand. First, our selection of news media performance indicators was inspired by the Grabe et al. (2000b; 2003) studies and studies on media credibility. As a result, participants indicated the extent to which a story was informative, objective, and credible (cf. Bracken, Neuendorf, & Jeffres, in Bracken, 2006; Grabe et al. 2000b; 2003; Lang et al., 2003). In addition, we added a few indicators that originally were derived from the fierce public discussions regarding the performance of today's arousing television news (cf. Bernstein, 1992; Blair, 2007; Gore, 2007), but that may also refer to the central concept – perceived sensationalism – as used by Wang and Cohen (2009): sensational, exaggerated, and blown up. Finally, we assessed the reliability of the story, as this issue reflects the background of the study, namely whether viewers feel confident about today's arousing news, in a more direct way. These indicators all fit into the conceptualization of news media performance as provided by McQuail (1992) and Hollifield (2006), which underlies the current study.

A principal component analysis (PCA) with oblique rotation (direct oblmin) of the seven statements regarding the perceived news media performance was conducted for each type of news story separately (see Table 1). The Kaiser-Meyer-Olkin measures verified the sampling adequacy for each analysis; with KMO scores between .79 and .82. Bartlett's test of sphericity indicated that the correlations between the items were large enough for PCA (the lowest score on this test was $\chi^2(21) = 714.734$; $p < .001$).

² The data used in this study were collected as part of a larger data gathering procedure (cf. Kleemans, Hendriks Vettehen, Beentjes, & Eisinga, 2012). We here describe only the parts of the procedure that are relevant for the current study.

Table 1 Principal component analyses of variables indicating perceived news media performance

	Neutral Standard		Neutral Tabloid		Negative Standard		Negative Tabloid	
The story was ...								
<i>Informative</i>	.78		.76		.83		.79	
<i>Objective</i>	.81		.84		.80		.78	
<i>Credible</i>	.82		.84		.78		.87	
<i>Reliable</i>	.77		.77		.81		.82	
<i>Sensational</i>		.80		.86		.88		.86
<i>Exaggerated</i>	-.34	.60	-.38	.64	-.31	.69		.72
<i>Blown up</i>		.70	-.31	.73		.72		.77
<i>Explained variance (%)</i>	48.72	15.69	50.33	18.21	52.19	17.50	50.91	17.93
<i>r</i> (pc1, pc2)	-.32		-.27		-.34		-.37	

Note. A direct oblimin rotation was applied. Only loadings above .30 are displayed.

The PCA showed similar results. Both Kaiser's criterion of retaining factors with eigenvalues greater than 1 and the criterion of factor loadings greater than .60 (cf. Kline, 1994) imply that two components of perceived news media performance can be discerned. The first, which we labeled *perceived news quality*, consists of the statements regarding the perceived informativeness, objectivity, credibility, and reliability of the news story. Cronbach's alpha of the items varied between $\alpha = .82$ and $\alpha = .84$ for the four types of news stories. For each type of news story, we calculated the participant's mean score on the four statements to construct the variable perceived news quality. The statements regarding the perceived sensational, exaggerated, and blown up character of the news stories together constitute the second dimension, called *perceived sensationalism*. Cronbach's alphas varied between $\alpha = .66$ and $\alpha = .76$ for the four types of news stories. To construct the perceived sensationalism scale, we calculated the participant's mean score on the three statements for each type of news story. The two dimensions together accounted for 64.4 to 69.7 percent of the variances. The negative correlations (r in Table 1) between the two discerned components are moderate. This implies that independence between the components *perceived news quality* and *perceived sensationalism* cannot be assumed, but also that viewers do not necessarily equate perceptions of sensationalism with perceptions of low news quality.

Results

A full factorial 2 (content) \times 2 (packaging) \times 3 (age) repeated measures MANOVA was carried out for perceived news quality and perceived sensationalism separately, with content (negative and neutral) and packaging (standard and tabloid) as within-subject factors, and age (young, middle, old) as between-subject factor. The group variable, referring to the four groups of stimulus materials, was excluded from the analyses as a preliminary examination of the data showed that (as expected) this variable did not affect the results.

Perceived News Quality

The results for perceived news quality showed a main effect for content ($F(1,285) = 17.40$; $p = .001$, $\eta^2 = .06$). Viewers perceived the news quality of neutral stories ($M = 5.20$; $SE = .05$) to be higher than the quality of negative stories ($M = 4.96$; $SE = .05$). No significant results for packaging were found, which implies that the packaging of a news story does not affect the perceived news quality of the story. Age had a main effect on the perceived quality of news stories ($F(2,285) = 4.92$; $p = .008$, $\eta^2 = .03$). Post-hoc comparisons showed that middle-aged viewers ($M = 4.85$; $SE = .08$) had significantly lower scores on perceived news quality than older viewers ($M = 5.18$; $SE = .08$). The differences between young viewers ($M = 5.06$; $SE = .08$) on the one hand and middle-aged and old viewers on the other hand were not significant. However, as the interaction between content and age ($F(2,285) = 5.17$; $p = .006$, $\eta^2 = .04$) showed, viewer perceptions of the quality of television news content were more complex (see Figure 1). Post-hoc comparisons showed that among older viewers there is no difference ($p = .968$) in perceived news quality between negative ($M = 5.23$; $SE = .09$) and neutral ($M = 5.22$; $SE = .09$) stories. Middle-aged viewers ($p < .001$) perceived neutral stories ($M = 5.12$; $SE = .09$) as having somewhat more news quality than negative stories ($M = 4.67$; $SE = .09$). The same pattern in perceived news quality of neutral ($M = 5.24$; $SE = .09$) and negative content stories ($M = 4.99$; $SE = .09$) was found for young viewers ($p < .01$).

Perceived Sensationalism

The results regarding perceived sensationalism of the news stories showed a strong main effect for content ($F(1,285) = 140.41$; $p = .001$, $\eta^2 = .33$). Negative stories ($M = 3.34$, $SE = .06$) were perceived as considerably more sensational than neutral stories ($M = 2.54$, $SE = .05$). In addition, a main effect for packaging was found ($F(1,285) = 21.42$; $p = .001$, $\eta^2 = .07$), which indicated that tabloid stories ($M = 3.10$, $SE = .06$) were perceived as more sensational than standard stories ($M = 2.78$, $SE = .06$). However, the significant interaction between content and packaging ($F(1,285) = 16.64$; $p = .001$, $\eta^2 = .06$) differentiates these main effects. It was found that only for neutral stories, the inclusion of tabloid features increased perceived sensationalism ($\Delta M = .58$; $p < .001$). For negative content, no significant ($p = .58$) increase in perceived sensationalism was found. As visualized in Figure 2, negative content

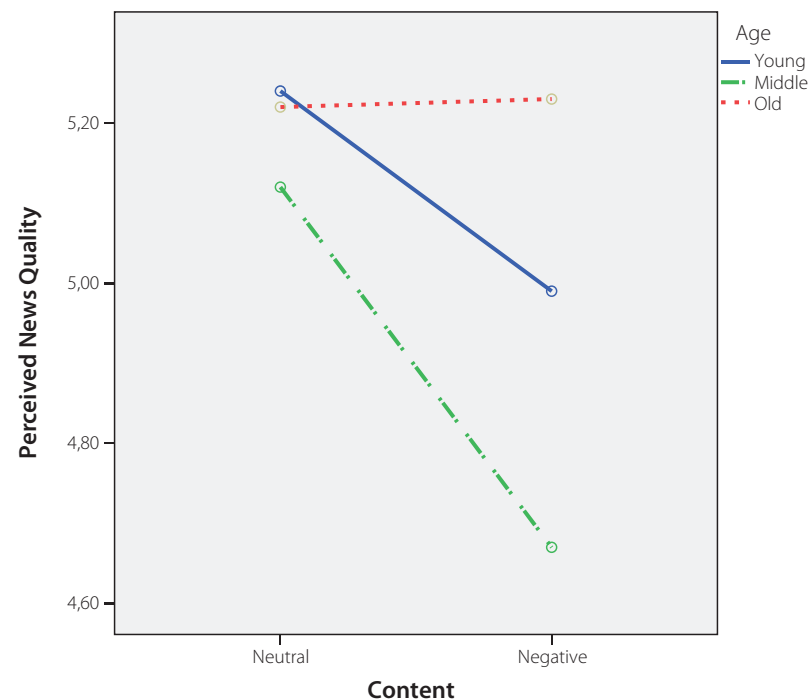


Figure 1 Perceived news quality by content among young, middle-aged, and old viewers

was perceived as more sensational than neutral content in both standard ($p < .001$) and tabloid ($p < .001$) packaged news stories.

Furthermore, a main effect for age was found ($F(2,285) = 7.05$; $p = .001$, $\eta^2 = .05$). Post-hoc comparisons showed that young ($M = 3.09$; $SE = .08$) and middle-aged ($M = 3.04$; $SE = .08$) viewers scored significantly higher on perceived sensationalism than the oldest viewers ($M = 2.70$; $SE = .08$), whereas the difference between the young and middle-aged viewers was not significant.

In addition, a weak interaction effect between content and age ($F(2,285) = 3.63$; $p = .028$, $\eta^2 = .03$) was found. Post-hoc comparisons showed that participants within all three age categories perceived negative content stories as more sensational than neutral content stories ($p < .001$ for young, middle-aged, and old viewers). However, as Figure 3 shows, middle-aged viewers appear to be a bit more sensitive to negative news content.

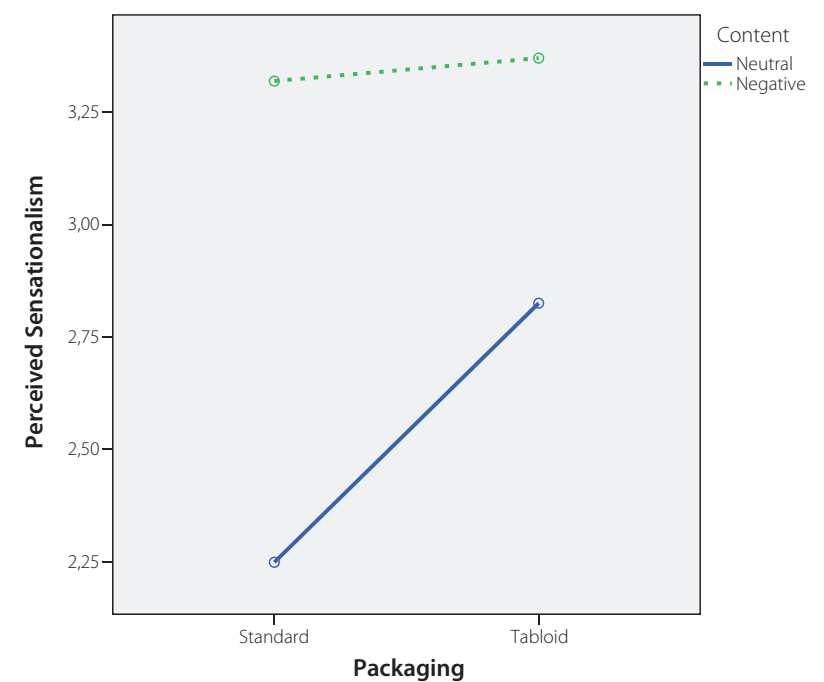


Figure 2 Perceived sensationalism by packaging of stories with neutral and negative content

Evaluating the Hypotheses

The first hypothesis, which predicted that viewers perceived the performance of negative content and tabloid-packaged news stories as more negative than neutral content and standard-packaged news stories, was largely confirmed by the study results. Negative content stories were generally perceived as having both a lower news quality and being more sensational than neutral content stories. Furthermore, tabloid-packaged neutral stories were perceived as more sensational than standard-packaged neutral stories.

The second hypothesis posed the expectation that older viewers had more negative perceptions regarding the media performance of negative content and tabloid-packaged news (as opposed to neutral content and standard-packaged news stories) than younger viewers. However, we did not find age differences with regard to the packaging of the news stories. Regarding content, our results showed the opposite of what we expected: younger and middle-aged viewers perceived negative content stories as having a lower news quality than neutral content stories, whereas older viewers perceived negative content stories as having an equal news quality as neutral content stories in this respect.

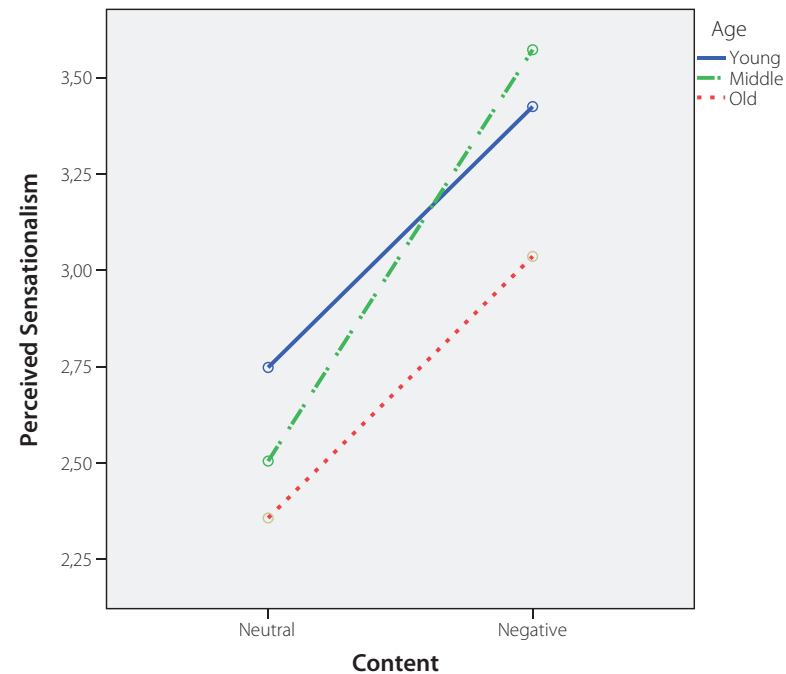


Figure 3 Perceived sensationalism by content among young, middle-aged, and old viewers

Moreover, older viewers were less critical regarding the sensational character of negative content news stories than middle-aged and younger viewers. We should thus reject the second hypothesis.

Discussion

This study investigated how news content and packaging features are perceived by viewers in terms of news media performance. Moreover, it was studied whether these perceptions varied between viewers of different ages. From the analyses, three main findings emerged. First, we found that negative content and tabloid packaging considerably influenced viewers' perceptions of sensationalism in news stories. Adding negative content to news stories most substantially increased perceived sensationalism, but adding tabloid packaging features to neutral stories also increased perceived sensationalism. This finding implies that news viewers share the opinion of many news critics and scholars that arousing news characteristics might be seen as sensationalism.

A second main finding is that viewers' perceptions of news quality were negatively affected by negative content stories. However, this effect appeared to be considerably smaller compared with the effect that negative content news had on perceived sensationalism, and it was not present among the oldest viewer category. Tabloid packaging did not affect perceptions of news quality at all. We may thus conclude that blaming negative content characteristics for providing low quality news may be considered justified to some extent, but that blaming tabloid-packaged stories for providing low quality news may be considered overdone.

A third important study finding concerned that the relationship between content of news stories and both perceived sensationalism and perceived news quality was different for viewers of different ages. Older viewers did not differ in their perception of news quality regarding negative and neutral stories, whereas young and middle-aged viewers perceived negative stories as lower quality stories compared to neutral stories. Regarding perceived sensationalism, middle-aged viewers seemed to be a bit more sensitive to negative news content than other viewers. In all, critical views on negative content appeared to be particularly visible among young and middle-aged viewers. Interpreting these age-differences as a generation effect, one might predict that these views on the performance of negative news are likely to continue in the future.

The remarkable finding that older viewers perceived neutral and negative content stories as having the same quality, whereas younger and middle-aged viewers perceived negative stories as lower quality stories deserves clarification, as it was opposite to what was expected based on media credibility studies (cf. Bucy, 2003; Johnson & Kaye, 2000; Metzger et al., 2003; Robinson & Kohut, 1988). An explanation may be found in the fact that the news stories in the current study were selected from the main public news program in the Netherlands: *NOS Journaal*. For over 50 years, this news program has been seen as a hallmark of high-quality TV news. It could be that unlike younger viewers, older viewers take an acceptable news media performance of this particular news program for granted, since they were raised in a time when the quality of the *NOS Journaal* was undisputed.

Comparing the results of the current study with previous research, the modest findings for negative content on perceived news quality seem largely in accordance with earlier findings by Grabe et al. (2003). However, the strong effect on perceived sensationalism is in stark contrast to the Wang and Cohen (2009) study. This difference might be explained by the different designs applied in the studies. In the Wang and Cohen study, respondents were questioned about a number of content categories (e.g., crime and conflicts, accidents and disasters) without actually being exposed to these content categories. To respondents, this is a rather abstract task, which places a heavy burden on their capacity to retrieve instances from these content categories into their memories. In our study, participants watched stories containing negative content (e.g., criminal acts, fires), which may evoke considerably stronger and more direct responses.

The findings for tabloid packaging also deserve additional attention. Wang and Cohen (2009) showed that tabloid-packaged stories are perceived as more sensational. However, our finding that only tabloid-packaged stories containing neutral content are perceived as more sensational is a bit different from the Wang and Cohen finding. Moreover, in contrast to the studies conducted by Grabe and colleagues (2000b; 2003) and studies on media performance (cf. Bracken, Neuendorf, & Jeffres, in Bracken, 2006; Lang et al., 2003), we did not find an effect of packaging on the perceived quality of news stories. These conditional or even absent findings regarding tabloid packaging might possibly be explained by the Dutch context in which our study took place. In particular compared to US news stories, Dutch news stories do not typically contain much tabloid features. Hence the difference between standard- and tabloid-packaged stories was most likely larger in the US stimulus materials than in the stimulus materials used in the current study. For example, music was applied throughout 82% of the tabloid story content in the stimulus materials as used by Grabe et al. (2003), whereas the stories in our stimulus materials contained only a few seconds of music. The lack of differences in news quality with regard to the packaging of news stories might be due to relatively smaller differences in our stimulus materials.

Some critical remarks need to be made; first with regard to the study participants. Only higher educated viewers participated in the current study. In contrast, the Grabe et al. (2000b; 2003) and the Wang and Cohen (2009) studies included lower and higher educated viewers. One might ask whether this difference limits the degree to which our findings can be compared with the findings from these studies. We know from previous research that higher educated viewers have generally more interest in news than lower educated viewers (cf. Ettema & Kline, 1977; Liu & Eveland, 2005; The Pew Research Center for the People & the Press, 2008). Higher educated viewers are thus more motivated to acquire information. One might argue that they are hence more critical towards news performance (cf. Bucy, 2003), which may have somewhat limited the degree to which the results of the current study can be generalized. However, both the Grabe et al. (2000b; 2003) and the Wang and Cohen (2009) studies did not report an interaction showing that higher educated viewers perceived negative or tabloid-packaged news stories different from lower educated viewers. Nevertheless, we recommend to include participants with lower educational backgrounds in future research as well, to see whether the results that we found are applicable to a larger part of society.

Second, the study has some limitations with regard to the origin of the stimulus materials. All stories were broadcast by the same public service broadcaster. Since we know from previous research that commercial broadcasters are more frequently associated with the inclusion of negative content and tabloid packaging features (cf. Hendriks Vettehen et al., 2005), there are reasons to expect that the results might be somewhat more distinct when using news stories broadcast by commercial channels as stimulus material (cf. Leshner, Reeves, & Nass, 1998). We need to mention, however, that we did not measure whether participants recognized the broadcaster of the stories. The editing of

the stories made it harder to identify the origins of the stories as typical characteristics, for instance the introduction provided by anchorpersons, were replaced. But as we do not know whether and how viewers were affected by the origins of the stimulus materials, future research should shed more light on differences in viewer perceptions of negative content and tabloid packaging stories in public service and commercial broadcast television news.

The findings of the study present a dilemma for news makers. We know from previous research that the younger viewers are, the more they prefer negative content (cf. Kleemans et al., 2012). However, the current study showed that viewers of these younger age categories perceived negative content stories as lower quality stories. This implies that they like to watch such stories, but that they may not completely rely on it. This study therefore gives reason to discuss how television news might serve its informative function in society for especially today's younger viewers and probably also in the future. This question deserves further attention in both academic and public debate.

Chapter 8

Summary, Conclusion, and Discussion

Summary, Conclusion, and Discussion

Against the background of widely discussed developments in the content and packaging of today's news, in this dissertation we focused on arousing television news. Three research questions were posed: (1) What is arousing television news? (2) What are the causes of arousing characteristics in television news? (3) What are the consequences of arousing television news for different categories of viewers? To answer these questions, in this dissertation we presented a review of studies on arousing news, followed by five empirical studies regarding the causes and consequences of arousing television news. In this final chapter we summarize our research conclusions and report some limitations, directions for future research, and theoretical and practical implications.

Summary of the Studies

As described in Chapter 1, arousing television news is frequently discussed in public debate. In most instances, it is conceived as a negative by-product of market-driven journalism. One believes that market-driven journalism pressurizes news producers to include arousing content and packaging characteristics in their stories as a means to attract the attention of the audience. News critics worry that the increasing use of arousing news characteristics threatens the informative function of news. These public discussions have inspired a number of academic studies on arousing television news, and were also the inspiration for the studies discussed in this dissertation. In particular, we studied the causes of arousing television news, and whether arousing news characteristics accomplish the news producers' task of attracting the audience, informing audiences, and doing so in accordance with traditional norms of proper journalism at the same time.

Chapter 2 provided a comprehensive conceptualization of arousing television news. Based on an historical account of the way in which the academic concept of arousing news has evolved over the past decades, we defined arousing television news as news stories with both content and packaging characteristics that have the ability to elicit arousal and attention responses in viewers. Prominent examples of arousing news characteristics are negative story topics and pictures (e.g., stories and images referring to crime, violence, riots, and disasters), and packaging features such as fast-pacing and decorative editing techniques (e.g., wipes, fades, and dissolves). In this dissertation, we referred to these arousing characteristics as negative content and tabloid packaging. In addition to the conceptualization of arousing television news, in Chapter 2 we presented a review of relevant past studies regarding the causes and consequences of arousing news. With regard to causes, this review showed that the influential role of competitive pressure in particular received attention in previous research. Support was provided for level of competition as an important factor: past research showed that commercial broadcasters,

who experience a high level of competition, included more arousing characteristics in their newscasts than public service broadcasters. Moreover, trend studies showed an increase in the presence of arousing characteristics in the news over time and this coincides with an increase in competitive pressure on the news market. However, it appeared that other contextual variables which may be important were underexposed in previous research. Studies about the consequences of arousing television news support the assumption that arousing news characteristics affect the appeal, information processing, and viewer perceptions of television news. But there are some unanswered questions with regard to the moderating role of important demographic viewer characteristics such as age, gender, and level of education. The studies in this dissertation did address a major part of these questions.

In Chapter 3 the causes of arousing television news were being addressed. We conducted a content analysis of television news stories broadcasted in Western European cultures (France, the Netherlands, the French-speaking and the Dutch-speaking part of Belgium) and in Chinese-dominated cultures (Mainland China, Hong Kong, and Taiwan). Thus we not only investigated the influence of competitive pressure at the news station level (operationalized as the difference between public service and commercial stations) and at the market level (defined as differences between news markets, based on the number of flagship news programs, the market size, and the degree of governmental regulation), but also cultural influences. This 'cultural factor' may reflect differences in aspects such as the public's tastes and journalistic norms and practices. Results provided support for the expectation that competitive pressure promotes arousing news and showed that cultural differences matter. Competitive pressure at the market level appeared to contribute to the prevalence of arousing news, but this effect was more pronounced in Chinese-dominated cultures than in the Western European cultures. Effects of competitive pressure at the news station level were only observed in the Western European cultures.

In Chapter 4 and 5 the focus was on the consequences of arousing news by studying differences in preference and enjoyment of higher educated viewers varying in age and gender with regard to the appeal of arousing television news. In Chapter 4 we studied viewer preferences, defined as the type of news story viewers would watch if they had the choice. Preferences for negative content and tabloid packaging were found to be both age-related and gender-related. Compared with middle-aged and older viewers young viewers had a stronger preference for negative content over neutral content. Preferences for tabloid packaging rather than standard packaging were stronger for men than for women. In Chapter 5 we examined the enjoyment of negative content and tabloid-packaged news stories. Enjoyment was defined as the message-related and experience-related evaluations of news. The results showed in the first place an \cap -shaped relationship between arousal and enjoyment, implying that an increase in emotional arousal elicited by news story characteristics increased the viewer's enjoyment of the story, only up to a

certain point. Beyond that point, a further increase in arousal decreased the enjoyment of the news story. Secondly, age differences were found in the relation between arousal and enjoyment: the level of arousal at which enjoyment reached its maximum was higher for younger viewers. Thirdly, it was found that men and women did not differ in their enjoyment of negative content and tabloid-packaged news stories. Sensation seeking was included in the study to investigate whether the differences between age groups could be explained by the finding that younger viewers were higher sensation seekers than older viewers. The study findings did not support this expectation, implying that other mechanisms are responsible for the age differences. In all, the study of enjoyment provided deeper insight into a theoretical mechanism that may, among other mechanisms, explain the appeal of arousing news. Arousal, elicited especially by the content of news stories, affected enjoyment in a similar way as the arousing content stories affected preferences among the different age groups. This finding constituted preliminary support for the expectation that arousal mediates the relationship between arousing characteristics in the news and the appeal of this news.

In Chapter 6 we examined the role of level of education in information processing of and preferences for negative content and tabloid packaging in television news stories among adolescents. In this chapter we focused on the influence of arousing news characteristics on the knowledge gap: people with a higher socioeconomic status have a higher level of knowledge about issues than those with a lower socioeconomic status. Results of the study showed that recognition of audio information (i.e., whether statements regarding the news story were true or not) and video information (i.e., whether stills were present in the news stories or not) improved among higher educated young viewers when watching negative content compared with neutral content, whereas recognition among lower educated young viewers was the same for negative content stories and neutral content stories. This finding implies that negative content in television news widens the knowledge gap between higher and lower educated young viewers. Moreover, it was found that negative content was better recognized by male viewers than by female ones. With respect to preferences, it was found that both higher and lower educated young viewers, and both men and women, had a stronger preference for negative content. The packaging of the news story did not affect the recognition of and preferences for news.

In Chapter 7 viewer perceptions of arousing television news were addressed. Participants evaluated news stories on two dimensions: perceived sensationalism and perceived news quality. Results showed that the perceived sensational character of news stories increased when negative content characteristics were included. In addition, tabloid-packaged neutral stories were perceived as more sensational than standard-packaged neutral stories. Regarding perceived news quality, the results were more subtle. Negative content stories were perceived as having less news quality than neutral content stories, but this was only the case among younger and middle-aged viewers. The

packaging of the news story did not affect perceptions of news quality. We may thus conclude that arousing news is perceived as sensational by viewers and that to some extent the inclusion of negative content affects the perceived quality negatively.

Conclusion

Three specific aims, formulated as three research questions, were addressed in this dissertation. The first aim was to provide a more elaborate conceptualization of 'arousing television news' by embedding the concept in theories of news processing. Related to this aim, the first research question was: 'What is arousing news?' In Chapter 1 and 2 we defined arousing news as content and packaging characteristics that have arousal-eliciting and attention-grabbing capacity. The conceptualization of arousing news was largely based on work that has previously been done by Grabe and colleagues (cf. Grabe, Lang, & Zhao, 2003; Grabe, Zhou, & Barnett, 2001). The Limited Capacity Model of Motivated Mediated Message Processing (LC4MP; Lang, 2000, 2006) provided a theoretical basis for the concept of arousing news as it predicts the arousal-eliciting and attention-grabbing capacity of arousing news characteristics. The LC4MP states that both information that is relevant to the goals and needs of an individual (e.g., negative content) and information that represents change or unexpected occurrences (e.g., tabloid packaging) elicit orienting responses in viewers, resulting in the elicitation of arousal and attention. Both past research and the studies in this dissertation provided empirical support for this conceptualization of arousing news by showing that the concept behaves as theoretically expected (cf. Grabe et al., 2003; Grabe, Zhou, Lang, & Bolls, 2000; Kleemans, Hendriks Vettehen, Beentjes, & Eisinga, 2012; Lang, Bolls, Potter, & Kawahara, 1999).

In the second place, we aimed to provide more insight into the origins of arousing television news. We therefore formulated the question 'What are the causes of arousing characteristics in television news?' McManus' (1994) market theory of news production points to competitive pressure as a main cause for arousing news. The results reported in Chapter 3 support this argument, as it was found that competition both at the market level (especially in the Chinese-dominated cultures) and at the news station level (in the Western European cultures) increased the presence of arousing characteristics in the news. Moreover, our comparative content analysis provided preliminary indications for the influence of cultural factors as we found differences between Asian and European countries. We thus concluded that competitive pressure is a driving force behind arousing news, but cultural factors also influence the presence of arousing characteristics in the news.

Thirdly, we aimed to answer the question whether the inclusion of arousing characteristics in television news is a convenient tool to accomplish the news producers' task of (1) attracting audiences, (2) informing audiences, and (3) doing so in accordance with traditional norms of proper journalism at the same time. The third research question

therefore was 'What are the consequences of arousing television news for different categories of viewers?' The studies consistently showed that viewers were affected by arousing news in different ways. It was found that younger viewers and men were more attracted by the inclusion of arousing characteristics in the news than older viewers and women (Chapter 4 and 5). Higher educated young viewers, and in particular the male ones among them, were better informed through arousing content news as they recognized these stories better than lower educated young viewers and women (Chapter 6). Finally, younger and middle-aged viewers appeared to have a more critical attitude towards arousing television news because they perceived negative content stories as having a somewhat lower quality than neutral stories (Chapter 7). In all, we may conclude that it is hard for news producers to simultaneously attract and inform a wide audience in accordance with traditional norms of proper journalism by means of arousing television news.

Discussion

In the final part of this dissertation, limitations and directions for further research will be discussed. Because the limitations of the empirical studies were already addressed in the individual chapters, we will focus on important overarching points of discussion here. In addition we will identify some theoretical and practical implications regarding arousing television news and finish with concluding remarks on the studies.

Limitations

First and foremost, the majority of the results were obtained by using experimental research designs, leading to some limitations that generally go hand-in-hand with this design. These limitations concern (a) the selection of stimulus materials, (b) the sample of participants, and (c) the generalization of the results outside the experimental setting.

With respect to (a) the selection of the stimulus materials, news stories that were broadcasted on television were selected and edited to make them suitable for the experiments. To diminish the potential influence of factors other than arousing characteristics, a number of factors were held constant. For example, stories had little variation in duration, included only local events, and potential effects of anchorpersons were eliminated as we replaced their introductions by written ones. Some of the stories were edited, for instance by adding or excluding camera shots or decorative editing techniques. Still, the material looked like ordinary Dutch news stories, in particular by being reserved about including high numbers of tabloid packaging characteristics. The selection and editing procedure resulted in fairly homogeneous stimulus materials that primarily differed in arousing content and packaging. This enabled us to investigate the specific consequences that arousing content and packaging characteristics may have on viewers. We are not completely sure, however, whether the results hold true for other types of

news stories. In particular, arousing positive content stories were not included in the experiments. The conceptualization of arousing news used in this dissertation includes all content and packaging characteristics that elicit arousal and attention responses in viewers. Because most of the news stories fitting this definition are negatively arousing (e.g., referring to accidents, crimes, death), we chose to concentrate on these stories. However, positively arousing news stories, for instance stories or pictures referring to sex or celebrity news, sometimes appear in newscasts as well. Previous research indicated that positive stories may affect viewers (in particular men versus women) in a different way than negative stories (cf. Kamhawi & Grabe, 2008; Klein, 2003; Slone, 2000), therefore it is recommended to extend future research by the inclusion of positively arousing content stories.

With regard to (b) the participant sample, we included participants varying in age, gender, and level of education in the studies. The participants in the experiment that provided data for Chapter 4, 5, and 7 consisted of higher educated viewers, varying in age and gender. The participants in Chapter 6 differed in level of education and gender but were all young viewers. As a result we could not and did not study the consequences of arousing news for all possible combinations of these demographic characteristics.

Regarding the appeal of arousing television news, it is plausible that middle-aged and older viewers with a lower level of education have other preferences than the higher educated ones we studied. Due to their higher interest in news (cf. Liu & Eveland, 2005; Prior, 2003), it can be argued that higher educated viewers are more motivated to acquire news than lower educated viewers. This may also apply to middle-aged and older viewers because younger viewers are less frequent news watchers (cf. The Pew Research Center for the People & the Press, 2008). The fact that the higher educated middle-aged and older viewers are more attracted to news in general may influence their preferences for certain types of content and packaging in television news stories. For instance, previous research showed that 'soft news', news that includes characteristics that we defined as arousing, is in particular able to attract viewers that would otherwise not watch the news at all (Baum, 2002; Prior, 2003). This leads to the question whether such news may affect the preferences of more frequent news viewers in a different way. We therefore recommend to study in future research the appeal of arousing television news among viewers varying in both age and level of education.

With regard to the recognition of arousing news, we did not study whether middle-aged and older viewers differed from the younger viewers in this respect and whether level of education affected the recognition scores of the middle-aged and older age groups. One might argue that it will be harder for low educated younger viewers to recognize news than for older viewers, as the latter group generally has more prior knowledge about issues that appear in the news. This implies that the differences in information processing found between higher and lower educated young viewers may not hold for older age groups. Future studies can shed more light on this issue.

With regard to perceptions of news media performance, the question that still exists is whether lower educated viewers have other perceptions than the higher educated ones. Higher educated participants are more frequent television news viewers than lower educated viewers (cf. Huysmans & De Haan, 2010; The Pew Research Center for the People & the Press, 2008). Frequent news viewers may be more critical towards the news and its performance, which is why future research may provide more insight into how level of education affects the relationship between arousing news stories and viewer perceptions of these stories.

A last remark regarding the experimental designs of the studies concerns (c) the generalization of the results. Participants in the experiments watched the news stories in a controlled experimental setting. That enabled us to exclude factors like background noise and interfering events (e.g., the ring of a phone or doorbell) that might otherwise have distracted the participants. However, these external factors may play a role in the real situation, as they call upon the cognitive capacity of the viewers. Cognitive overload is more likely to occur in such a situation, which may deteriorate, for instance, the information processing of news stories. We may thus ask to what extent our results will be similar outside the controlled experimental setting. This question that deserves attention in future studies.

Besides the limitations that are related to the experimental research designs, another limitation is the fact that the studies, except for the cross-cultural comparison, were exclusively conducted in the Netherlands. We had limited opportunities to vary in the extent to which packaging characteristics were included in the stories as Dutch television news is relatively sedate compared to US standards in particular. This might explain why we found only a few of the theoretically expected effects of tabloid packaging in the different studies. As tabloid packaging received limited attention in previous research, questions regarding the consequences of tabloid packaging in news stories continue to exist. We therefore recommend focusing on how tabloid packaging characteristics affect audience responses to the news. It might be especially interesting to investigate whether viewers more at ease with tabloid-packaged news (e.g., American viewers) differ in their responses from viewers that are less familiar with tabloid packaging (e.g., Dutch viewers), in order to see whether there are conditions under which tabloid packaging have beneficial effects on preferences, information processing, and evaluations of news performance.

Finally, we will shortly dwell upon the cross-cultural study regarding the causes of arousing news. As we already discussed in Chapter 3, our study included only a limited number of news markets and stations. As a result, some questions regarding the factors that may explain the (increasing) presence of arousing characteristics in television news are still open. Increasing the number of countries and news programs may, for instance, show whether cultural differences also exist within the Western European (cf. Hallin & Mancini, 2004) and the Chinese-dominated cultures (cf. Hu, 2009). Moreover, a larger

number of cases would enable the application of multilevel modeling, a technique that better suits the multilevel character of cross-cultural comparisons. In all, an increase in cases may provide more definite insight into the origins of arousing characteristics in television news.

Theoretical Implications

Aside from the theoretical contributions of the individual studies, the studies in this dissertation together contribute to theoretical notions on arousing television news in two major ways. As we outlined in the review of studies on arousing news (Chapter 2), the moderating role that demographic variables may play with regard to the consequences of arousing news have up till now received little attention. In this dissertation we undoubtedly showed that consequences of arousing news are not the same for all viewers, substantial differences exist between viewers varying in age, gender, and level of education. Second, our studies have an important theoretical relevance with regard to the effects of tabloid packaging. In contrast to what we theoretically expected based on the LC4MP, we found few effects of tabloid packaging. This demonstrates that the consequences tabloid packaging in television news stories theoretically has on viewers deserves some nuance. In all, we expand and deepen theoretical notions on the causes and consequences of arousing television. Thus, the studies in this dissertation take us a step closer to a theory of arousing television news.

Practical Implications

This dissertation not only contributes to academic research on arousing television news, but also provides insights that can be relevant for news producers. With some caution, due to the limitations of the studies, we formulate implications for practice.

Because our studies showed that different viewer categories were affected by arousing news in different ways, we first of all recommend that news producers anticipate on particular audiences in the newscasts they broadcast. In the Netherlands, attempts in that direction have already been made with *NOS Journaal op 3*, a Dutch news program that is specifically aimed at younger viewers. This program is packaged in a more flashy, tabloid-packaged style than other *NOS* news programs (cf. *NOS*, 2007). Moreover, a constant dialogue with the public is used as significant input for the content of newscasts (*NOS*, 2011). As programs like *NOS Journaal op 3* seem to respond better to the needs of the audience, more initiatives in that direction should be welcomed.

When news producers want to anticipate on the desires of particular viewer categories, they need to know how to use arousing characteristics in news stories properly. It is difficult to give detailed recommendations in this regard: the results of the studies did not propose indications about the precise amount of arousing characteristics that need to be included to serve a particular viewer category. Nonetheless, some general tendencies can be discerned. It is self-evident that news producers ideally want three things: their

news stories have to attract the public, have to inform them, and must be in accordance with norms of proper journalism. However, as our studies showed that news producers find themselves in a dilemma in this regard, we will make some recommendations that relate to the various and conflicting goals a news producer may have.

In order to gain and maintain audience attention, the general advice is to include arousing content characteristics in news stories. However, arousing characteristics will not endlessly increase the appeal of the news for its viewers. Moreover, a higher amount of arousing content characteristics in the news may be beneficial to attract younger viewers, whereas middle-aged and older viewers need to be served with lower levels of arousing content. Something similar applies to men versus women: arousing news serves male viewers as they prefer arousing news more than female viewers. When they aim to attract several viewer categories, news producers should not overstate the inclusion of arousing characteristics.

Parallel recommendations can be made with respect to the goal of informing people. We found that higher educated young viewers had a better recognition for arousing content than for neutral content, implying that arousing content enhanced their information processing. However, lower educated young viewers did not benefit from arousing news in terms of information processing. We also found that compared with young women, male young viewers processed arousing content stories better. We would advise to insert arousing characteristics in the news when the goal is to inform young people, as some of them (the high educated ones and men) take advantage of arousing news, while the others (the low educated ones and women) experience no adverse effects from arousing news.

In order to provide news that is in accordance with traditional norms of proper journalism, we recommend news producers to be reticent in including arousing characteristics in television news stories. Viewers perceived arousing news as having a higher level of sensationalism compared with non-arousing news. However, it is more important that arousing content stories threaten the quality of the news as perceived by young and middle-aged viewers. In other words, these viewers feel less confident about arousing news, which is an undesirable outcome for news producers who want to inform viewers properly.

In all, the study findings imply that it is hard for news producers to attract and to inform a wide audience while at the same time following the traditional norms of proper journalism. Arousing news has somewhat contrasting effects on appeal, recognition, and viewer perceptions among different viewer categories, implying that it will be challenging for news producers to use arousing characteristics appropriately in light of the informative function of news. Trends towards more arousing characteristics in television news should be viewed with caution: regardless of the goals a news producer has, too much arousal does not seem to be a good idea for any viewer category.

Concluding Remarks

We started this dissertation by focusing on public discussions regarding arousing news. Critics came up with a number of remarks. In particular, arousing news was blamed for serving mainly young viewers, and for being driven by a wish to increase TV ratings. Moreover, they accused arousing news of being sensational, of being in conflict with traditional norms of proper journalism, and of disturbing the informative function of television news. Based on the results as presented in our studies, we can conclude that these criticisms are not entirely unfair. We found that the presence of arousing characteristics in news is more common under higher conditions of competition. Moreover, arousing content news especially attracts younger viewers, it seems to enlarge knowledge differences between high and low educated young viewers, and it puts pressure on perceptions of news quality.

However, not all effects of arousing television news were found to be as negative as critics argue. Firstly, it can also be seen as encouraging that arousing news attracts young viewers, as this age category consists of less frequent news viewers. Secondly, we found that the inclusion of tabloid packaging, within the limits of the relatively 'calm' Dutch news, did not affect the perceived quality of news at all. In the third place, negative content in television news turned out to enhance information processing of higher educated young viewers and men, and although negative news did not enhance information processing among lower educated viewers and women, it also did not harm information processing among these categories.

To conclude: arousing television news is not necessarily a bad thing, but it is not able to fulfill its informative function for a *wide* audience. However, when news producers anticipate on the preferences, information processing capabilities, and ideas about news performance among particular viewer categories by varying the presence of arousing characteristics in news stories, television news may better accomplish its task to inform citizens about significant events in society.

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Curriculum Vitae

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Nederlandse Samenvatting

In de media is in de afgelopen jaren veel gezegd en geschreven over ontwikkelingen in het hedendaagse televisienieuws. De discussie betreft zowel de inhoud als vormgeving van nieuwsberichten. Ook wetenschappers hebben veelvuldig aandacht besteed aan deze veranderingen door onderzoek te doen naar wat men prikkelend (*arousing*) televisienieuws noemt. Prikkelende nieuwsberichten zijn berichten die zich kenmerken door bijvoorbeeld de aanwezigheid van negatieve onderwerpen, dramatische beelden en een hoog aantal camerawisselingen, al dan niet in combinatie met diverse montage technieken zoals muziek, signaalgeluiden en overgangseffecten. Onderzoek heeft aangetoond dat het televisienieuws in diverse Westerse landen door de jaren heen steeds prikkelender is geworden (vgl. Hendriks Vettehen, Beentjes, Nuijten, & Peeters, 2011; Hendriks Vettehen, Nuijten, & Beentjes, 2005; Hjarvard, 2000; Hvitfelt, 1994; Schaefer & Martinez III, 2009; Slattery, Doremus, & Marcus, 2001; Slattery & Hakanen, 1994). In publieke discussies wordt deze trend naar steeds prikkelender nieuws met argusogen bekeken. Critici menen dat de veranderingen in het hedendaagse televisienieuws het gevolg zijn van een toenemende noodzaak voor nieuwsproducenten om de aandacht van het publiek te trekken. Door te focussen op wat de kijker wil zien, in plaats van wat de kijker 'moet' zien, zou de informatieve functie van het nieuws onder druk komen te staan. Prikkelend televisienieuws zou teveel gericht zijn op het trekken van jongere kijkers, terwijl een breed publiek geïnformeerd zou moeten worden. Ook menen critici dat prikkelend nieuws te sensationeel is, hetgeen kan leiden tot een schending van traditionele journalistieke normen en waarden (vgl. Bernstein, 1992; Blair, 2007; Fortuyn, 2000; Gore, 2007; Jones, 2009).

Tegen de achtergrond van deze discussies is in dit proefschrift onderzocht wat de oorzaken en gevolgen zijn van prikkelend televisienieuws. Drie doelen, uitgewerkt in drie onderzoeksvragen, stonden daarbij centraal. Het eerste doel was het ontwikkelen van een meer uitgewerkte conceptualisering van 'prikkelend televisienieuws', door het concept in te bedden in theorieën over informatieverwerking. Het eerste deel van dit proefschrift richtte zich dan ook op de vraag: 'Wat is prikkelend televisienieuws?' De tweede doelstelling was het verkrijgen van meer inzicht in de oorsprong van prikkelend televisienieuws. In het tweede deel is daarom de vraag onderzocht: 'Wat zijn de oorzaken van prikkelend televisienieuws?' Het derde doel was om te achterhalen of critici gelijk hebben als zij stellen dat prikkelend televisienieuws een bedreiging vormt voor de informatieve functie van het nieuws. Onderzocht is of het gebruik van prikkelende inhouds- en vormgevingskenmerken een geschikte manier is voor nieuwsproducenten om een breed kijkerspubliek te trekken, hen te informeren, en dit tegelijkertijd te doen in overeenstemming met traditionele journalistieke normen en waarden. De derde onderzoeksvraag luidde: 'Wat zijn de gevolgen van prikkelend televisienieuws voor verschillende groepen kijkers?'

Deel 1: Wat is prikkelend televisienieuws?

Prikkelend televisienieuws is onder veel verschillende noemers bestudeerd, waaronder tabloid nieuws (Grabe, Lang, Zhou, & Bolls, 2000), infotainment (Graber, 1994), 'bad' nieuws (Newhagen & Reeves, 1992) en sensatie (Grabe, Zhou, & Barnett, 2001; Hendriks Vettehen et al., 2005; Uribe & Gunter, 2007). Een probleem is niet alleen het gebruik van een verscheidenheid aan termen, maar vooral ook dat de genoemde benamingen een overwegend negatieve connotatie hebben. Daar in dit proefschrift juist onderzocht wordt of het terecht is dat prikkelend nieuws als negatief wordt beschouwd, is ervoor gekozen om de meer neutrale term 'prikkelend televisienieuws' te hanteren. Daarmee is aangesloten bij enkele eerdere onderzoeken naar dit onderwerp (vgl. Grabe & Kamhawi, 2006; Grabe et al., 2000a; 2003; Hendriks Vettehen et al., 2011; Zhou, 2005). Ondanks de verschillende termen die in voorgaand onderzoek zijn gebruikt, lijken onderzoekers het er wel over eens dat de inhouds- en vormgevingskenmerken die steeds vaker in het nieuws verschijnen zich kenmerken door hun vermogen om kijkers emotioneel te prikkelen. Bovendien zijn deze kenmerken in staat om de aandacht van kijkers te trekken (Grabe et al., 2001; Hendriks Vettehen et al., 2005; 2011; Uribe & Gunter, 2007). Prikkelend televisienieuws wordt in dit proefschrift dan ook gedefinieerd als nieuwsberichten die inhouds- en vormgevingskenmerken bevatten die in staat zijn om prikkeling op te roepen en om aandachtsreacties bij de kijker uit te lokken.

Het Limited Capacity Model of Motivated Mediated Message Processing (LC4MP; Lang, 2000; 2006) vormt de theoretische basis voor de operationalisering van prikkelend televisienieuws. Het LC4MP stelt dat de cognitieve verwerking van mediaboodschappen zowel gecontroleerd als automatisch verloopt. Ten aanzien van prikkelend nieuws is met name de automatische verwerking relevant. Het LC4MP stelt dat bepaalde kenmerken in mediaboodschappen een zogenoemde *orienting response* kunnen oproepen. Een *orienting response* wil zeggen dat de ontvanger zijn of haar zintuigen richt op de boodschap, hetgeen resulteert in een aantal fysiologische reacties zoals een toename in huidgeleiding (indicator voor opgewekte prikkeling) en een daling van de hartslag, indicator voor een kortstondige aandachtsreactie (Lang, 2000, p.52). In het bijzonder twee typen stimuli roepen een *orienting response* op. Ten eerste zijn dit stimuli die relevante informatie bevatten voor de ontvanger. Voorbeelden van dergelijke stimuli zijn nieuwsberichten over misdaad, geweld en de dood, omdat deze berichten potentiële bedreigingen voor mensen bevatten (vgl. Davis & McLeod, 2003; Shoemaker, 1996). Daar het in televisienieuws met name negatieve onderwerpen en beelden zijn die prikkeling en aandacht opwekken, verwijzen we in dit proefschrift naar deze categorie inhoudskenmerken met de term 'negatieve inhoud' (*negative content*). Het tweede type stimuli dat *orienting responses* zal oproepen betreft stimuli die veranderingen of onverwachte wendingen in mediaboodschappen representeren (Lang, 2000). In televisienieuws gaat het dan vooral om vormgevingskenmerken, zoals het veelvuldig (abrupt) wisselen van camerashots, het gebruik van geluideffecten of montagetechnieken, of het starten van muziek (Grabe et al.,

2001; 2003; Hendriks Vettehen, Nuijten, & Peeters, 2008; Lang, 2000, Lang, Bolls, Potter, & Kawahara, 1999). In dit onderzoek refereren we naar deze vormgevingskenmerken met de term 'vlotte vormgeving' (*tabloid packaging*).

Deel 2: Wat zijn de oorzaken van prikkelend televisienieuws?

In zowel publieke discussies (Bernstein, 1992; Blair, 2007; Gore, 2007) als wetenschappelijke studies (Hendriks Vettehen et al., 2005; 2011; Hjarvard, 2000; Hvitfelt, 1994; Wang, 2012) wordt verondersteld dat toenemende concurrentie op de televisienieuwsmarkt ervoor heeft gezorgd dat er in het hedendaagse televisienieuws steeds meer prikkelende inhouds- en vormgevingskenmerken verschijnen. Ook de markttheorie over nieuwsproductie van McManus (1994) stelt dat competitieve druk een belangrijke oorzaak is van prikkelend nieuws. In eerder onderzoek werden al aanwijzingen gevonden voor concurrentie als verklaring voor een toename in het voorkomen van negatieve inhoud en vlotte vormgeving in televisienieuws (vgl. Hendriks Vettehen et al., 2005; 2011; Hjarvard, 2000). Wat al deze studies gemeen hadden, is dat ze het verband tussen toenemende concurrentie binnen een markt en prikkelend nieuws aannemelijk probeerden te maken door aan te tonen dat wanneer door de jaren heen concurrentie binnen een gegeven markt toenam, ook het nieuws meer prikkelend van aard werd. Een dergelijk onderzoeksontwerp kan echter niet uitsluiten dat veranderingen in inhoud en vorm van het nieuws aan andere ontwikkelingen in de tijd toe te schrijven zijn, zoals technologische ontwikkelingen en veranderingen in de (journalistieke) cultuur (Kleemans, Van Cauwenberge, d' Haenens, & Hendriks Vettehen, 2008). Aan de hand van een landenvergelijkende inhoudsanalyse is in dit proefschrift daarom onderzocht in hoeverre op een gegeven meetmoment verschillen in concurrentieniveau (zowel tussen nieuwsmarkten als tussen nieuwszenders) en verschillen in cultuur oorzaken kunnen zijn van negatieve inhoud in en vlotte vormgeving van nieuwsberichten. Hiertoe zijn televisienieuwsberichten uit West-Europa (Nederland, Frankrijk, Vlaanderen en Wallonië) vergeleken met berichten uit Aziatische landen (Taiwan, Hong Kong en het vasteland van China). De resultaten van de landenvergelijkende studie ondersteunde de gedachte dat competitiedruk een verklaring vormt voor het toenemende gebruik van prikkelende inhoud en vormgeving in nieuwsberichten. Zowel competitie op de nieuwsmarkt (met name in de Aziatische landen) als competitie op het niveau van zenders (in de West-Europese gebieden) bleek te leiden tot meer prikkelende kenmerken in het nieuws. Bovendien werden er aanwijzingen gevonden voor de invloed van culturele factoren, aangezien er verschillen tussen de Aziatische landen enerzijds en de West-Europese landen anderzijds bleken te zijn. In antwoord op de tweede onderzoeksvraag kan dan ook worden geconcludeerd dat competitieve druk een drijvende kracht is achter het gebruik van prikkelende kenmerken in televisienieuws, maar dat ook culturele aspecten een oorzaak kunnen zijn van het voorkomen van negatieve inhoud en vlotte vormgeving in nieuwsberichten.

Deel 3: Wat zijn de gevolgen van prikkelend televisienieuws voor verschillende groepen kijkers?

Nieuws kan alleen een informatieve functie vervullen als het de aandacht trekt en vasthoudt, kijkers informeert en als kwalitatief betrouwbaar wordt gezien; of anders gezegd, wanneer burgers ook daadwerkelijk naar het nieuws kijken, er iets van leren en erop vertrouwen. Het derde deel van dit proefschrift bevatte dan ook een viertal studies naar de gevolgen van prikkelend televisienieuws voor verschillende groepen kijkers. Met behulp van experimentele onderzoeksdesigns werd onderzocht in hoeverre voorkeuren (*preferences*), kijkplezier (*enjoyment*), herkenning (*recognition*) en kijkerspercepties ten aanzien van de kwaliteit en het sensationele gehalte van nieuwsberichten (*perceived news media performance*) beïnvloed werden door het al dan niet voorkomen van negatieve inhoud en vlotte vormgeving in televisienieuwsberichten. In al deze studies werd gevonden dat verschillende groepen kijkers op verschillende manieren beïnvloed werden door prikkelend televisienieuws. De studies lieten zien dat prikkelend nieuws aantrekkelijker werd gevonden door jongeren en mannen (in termen van voorkeuren en/of kijkplezier) dan door oudere kijkers en vrouwen. Hoger opgeleide jongeren, en in het bijzonder de mannen onder hen, bleken meer te herkennen van prikkelende inhoud in televisienieuws dan lager opgeleide jongeren en vrouwen. Jongeren en kijkers van middelbare leeftijd hadden een wat meer kritische houding ten aanzien van prikkelend televisienieuws. De negatieve nieuwsberichten werden door hen ervaren als van een lagere kwaliteit dan neutrale nieuwsberichten. Bovendien werd gevonden dat zowel negatief nieuws als neutraal nieuws dat vlot werd vormgegeven door kijkers van alle leeftijden als sensationeler werd beoordeeld. Ten aanzien van de derde onderzoeksvraag kunnen we stellen dat de gevolgen van prikkelend televisienieuws verschillen tussen kijkers variërend in leeftijd, geslacht en opleidingsniveau. Prikkelend televisienieuws trekt met name de aandacht van bepaalde doelgroepen, zorgt voor een betere informatieverwerking van het nieuws door een deel van kijkers, en wordt door de meeste de kijkers beschouwd als sensationeler en van een lagere nieuwswaarde dan niet prikkelend televisienieuws.

Theoretische en praktische implicaties

De empirische studies in dit proefschrift dragen op diverse manieren bij aan de theoretische kennis over prikkelend televisienieuws. Ten aanzien van de oorzaken van prikkelend televisienieuws verleende de landenvergelijkende studie, door het ten opzichte van eerdere studies afwijkende maar aanvullende onderzoeksdesign, belangrijke ondersteuning voor het idee dat concurrentietoename tot meer prikkelend nieuws leidt. De studie liet daarbij ook zien dat culturele factoren een rol spelen. De studies naar de gevolgen van prikkelend televisienieuws leveren op twee manieren een bijdrage aan theorievorming ten aanzien van prikkelend nieuws. Ten eerste lieten de experimenten zien dat de gevolgen van dit televisienieuws verschillend zijn voor verschillende groepen kijkers. Zoals reeds gezegd is gevonden dat de leeftijd, het geslacht en opleidingsniveau

van de kijker een belangrijke rol spelen, terwijl voorgaand onderzoek slechts minimale aandacht besteedde aan verschillen in effecten van prikkelend nieuws voor deze groepen kijkers. Verder hebben de experimenten een belangrijke theoretische relevantie voor wat betreft de effecten van vlotte vormgeving in het bijzonder. In tegenstelling tot wat theoretisch verwacht kon worden op basis van het LC4MP, bleek vlotte vormgeving maar beperkte gevolgen te hebben. Dit laat zien dat de consequenties die vlotte vormgeving theoretisch gezien heeft op bijvoorbeeld de voorkeuren voor en herinnering van nieuws door kijkers, enigszins genuanceerd dienen te worden. Samengevat kan worden gesteld dat dit proefschrift theoretische ideeën over de oorzaken en gevolgen van prikkelend televisienieuws heeft verbreed en verdiept, en daarmee een bijdrage kan leveren aan verdere theorievorming rondom prikkelend televisienieuws.

Net zoals andere studies hebben ook de in dit proefschrift gerapporteerde studies een aantal beperkingen. Zo zijn de meeste resultaten verkregen via experimentele onderzoeksdesigns, waardoor er beperkingen zijn in de selectie van het stimulusmateriaal, de steekproef van participanten in de studies, en de generaliseerbaarheid van de resultaten buiten de experimentele setting. We onderzochten bijvoorbeeld alleen negatieve en neutrale inhoud, en kunnen dus geen uitspraken doen over positief prikkelend nieuws. Verder onderzochten we weliswaar participanten die varieerden in leeftijd, geslacht en opleidingsniveau, maar werden deze demografische kenmerken niet alle drie in iedere studie meegenomen. Ook moeten we in gedachten houden dat de studies in het derde deel van dit proefschrift werden uitgevoerd in Nederland, waardoor we enigszins beperkt waren in de mate waarin we konden variëren in voornamelijk de aanwezigheid van vlotte vormgeving. Immers, het Nederlandse televisienieuws is, in vergelijking met bijvoorbeeld Amerikaans nieuws, veel rustiger qua vormgeving. Om ervoor te zorgen dat de berichten in de studies er nog wel realistisch uitzagen, konden we niet al te veel variëren in de vormgeving van de berichten.

Ondanks de hier genoemde beperkingen kunnen nieuwsproducenten zeker iets leren van de studies in dit proefschrift. Omdat er verschillen zijn gevonden in de gevolgen van prikkelend televisienieuws voor kijkers variërend in leeftijd, geslacht en opleidingsniveau, is de belangrijkste aanbeveling dat nieuwsproducenten inspelen op specifieke doelgroepen wanneer zij nieuwsprogramma's maken en uitzenden. In Nederland worden hiertoe al pogingen ondernomen, bijvoorbeeld met het programma *NOS Journaal op 3*, een nieuwsprogramma dat zich met name richt op jongere kijkers. Dit programma is vlotter vormgegeven dan andere NOS nieuwsprogramma's (NOS, 2007). Bovendien vindt er een constante dialoog plaats met het publiek, dat daarmee een bijdrage levert aan de inhoud van het nieuws (NOS, 2011). Het zou goed zijn wanneer er meer nieuwsprogramma's komen die anticiperen op de wensen van specifieke doelgroepen, zodat de informatieve functie van het nieuws beter tot zijn recht komt.

Om in te kunnen spelen op de wensen van specifieke doelgroepen, is het relevant voor nieuwsproducenten om weten in hoeverre prikkelende nieuwswaarden hiervoor

kunnen worden gebruikt. Het is lastig om gedetailleerde aanbevelingen te geven ten aanzien van het gebruik van negatieve inhoud en vlotte vormgeving, omdat de studies in dit proefschrift geen indicaties geven over de precieze hoeveelheid prikkelende kenmerken die zouden moeten worden ingevoegd in nieuwsberichten om een bepaalde doelgroep goed te bedienen. Er kunnen echter wel enkele algemene aanbevelingen worden gedaan. Het is evident dat nieuwsproducenten niet alleen kijkers willen trekken, maar ze ook willen informeren op een journalistiek adequate wijze. Echter, omdat de studies in dit proefschrift al hebben laten zien dat het lastig is om dit alles gelijktijdig te bewerkstelligen voor een breed publiek, zullen de aanbevelingen zich met name richten op de afzonderlijke, conflicterende doelen die een nieuwsproducent kan hebben.

Wanneer men de aandacht van kijkers wil trekken, dan kan met name het gebruik van meer negatieve inhoudskenmerken behulpzaam zijn. Echter, de aantrekkelijkheid van het nieuws neemt niet oneindig toe met het invoegen van meer prikkelende inhoudskenmerken. Bovendien geniet prikkelend nieuws vooral de voorkeur van jongeren en mannen, terwijl oudere kijkers en vrouwen dit nieuws minder aantrekkelijk vinden. Wanneer nieuwsproducenten dus verschillende kijkersgroepen willen trekken, dan moet het gebruik van prikkelende kenmerken in nieuwsberichten niet overdreven worden.

Soortgelijke aanbevelingen kunnen worden gedaan wanneer het voornaamste doel is om kijkers te informeren. Hoogopgeleide jongeren bleken negatieve inhoud beter te verwerken dan neutrale inhoud. Lager opgeleide jongeren profiteerden niet van negatief nieuws in termen van informatieverwerking, maar hun herinnering werd ook niet slechter. De herinnering van prikkelende nieuwsberichten was beter voor jonge mannen dan voor jonge vrouwen, maar ook hier gold dat de herinnering van de vrouwelijke kijkers niet negatief werd beïnvloed door negatieve inhoudskenmerken. Dit impliceert dat prikkelende kenmerken in nieuwsberichten gebruikt kunnen worden wanneer het nadrukkelijke doel is om jonge kijkers te informeren.

Om nieuws te brengen waarvan kijkers menen dat dit overeenstemt met journalistieke waarden en normen als geloofwaardigheid, informativiteit en objectiviteit, kan aan nieuwsproducenten geadviseerd worden om terughoudend te zijn in het gebruik van prikkelende nieuwskkenmerken. Kijkers ervaren prikkelend nieuws als sensationeler in vergelijking met niet-prikkelend nieuws. Echter, belangrijker is dat nieuws met een negatieve inhoud de kwaliteit van het nieuws, zoals ervaren door jongeren en mensen van middelbare leeftijd, onder druk zet. Met andere woorden, deze kijkers lijken minder vertrouwen te hebben in negatief nieuws, hetgeen onwenselijk is voor nieuwsproducenten die hun publiek adequaat willen informeren.

In het algemeen impliceren de resultaten van studies naar de gevolgen van prikkelend televisienieuws dat nieuwsproducenten voor een uitdaging staan wanneer zij prikkelende kenmerken verantwoord willen gebruiken om de informatieve functie van het nieuws te kunnen vervullen. Trends in een verdere toename van negatieve inhoud en vlotte vormgeving in nieuwsberichten moeten nauwlettend worden gevolgd. Ongeacht het

doel dat een nieuwsproducent heeft, kan worden gesteld dat teveel prikkeling voor geen enkele kijkersgroep een goed idee is.

Eindconclusie

De vragen die centraal stonden in dit proefschrift werden geformuleerd tegen de achtergrond van wetenschappelijke en publieke discussies rondom veranderingen in het hedendaagse televisienieuws. Prikkelend televisienieuws werd hevig bekritiseerd in het publieke debat, omdat dit nieuws vooral gericht zou zijn op jongeren, gedreven door de wens voor hoge kijkcijfers. Bovendien zou prikkelend nieuws sensationeel zijn, conflicteren met journalistieke normen en waarden, en de informatieve functie van het nieuws verstoren. Gebaseerd op de resultaten van de studies in dit proefschrift kan geconcludeerd worden dat de critici niet helemaal ongelijk hebben. Concurrentie bleek inderdaad te leiden tot negatieve inhoud en vlotte vormgeving in nieuwsberichten. Bovendien is prikkelend nieuws vooral aantrekkelijk voor jongeren, lijkt het verschillen in kennis tussen hoog- en laagopgeleiden te vergroten, wordt het beoordeeld als sensationeler, en oefent het druk uit op de door kijkers ervaren kwaliteit van het nieuws.

Echter, niet alle effecten van prikkelend televisienieuws bleken zo negatief te zijn als de critici veronderstelden. Ten eerste kan het ook als positief worden gezien dat prikkelend nieuws de aandacht van jongeren trekt, omdat jongeren minder frequente televisiekijkers zijn dan ouderen. Ten tweede bleek vlotte vormgeving van Nederlands nieuws geen invloed te hebben op de gepercipieerde nieuwswaardigheid. Ten derde vonden we dat negatief nieuws de informatieverwerking (in termen van herkenning) verbeterde onder hoogopgeleide jongeren en mannen, en hoewel dit negatieve nieuws niet leidde tot een betere herkenning van het nieuws onder laagopgeleide jongeren en vrouwen, verslechterde het de informatieverwerking van deze groepen ook niet.

We kunnen enerzijds concluderen dat de aanwezigheid van negatieve inhoud en vlotte vormgeving in televisienieuws niet per definitie slecht is, maar anderzijds dat prikkelende kenmerken ook niet volledig bruikbaar blijken om de informatieve functie te vervullen voor een breed publiek. Nieuwsproducenten zouden moeten inspelen op de voorkeuren, informatieverwerkingsvaardigheden, en percepties ten aanzien van de nieuwswaardigheid die specifieke doelgroepen hebben door te variëren in de aanwezigheid van prikkelende nieuwskkenmerken in nieuwsberichten. Op die manier zal het hedendaagse televisienieuws beter in staat zijn om de belangrijkste taak te vervullen: het informeren van burgers over belangrijke gebeurtenissen in de samenleving.

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Curriculum Vitae

Mariska Kleemans was born on January 11, 1985 in Naarden, the Netherlands. She studied Communication Science (BSc, 2006) and Educational Science (BSc, 2006) at the Radboud University Nijmegen. She also participated in a two-year interdisciplinary extracurricular Honours Program. Due to her interest in doing research, Mariska decided to participate in the two-year Research Master Social Cultural Science. She graduated (Cum Laude) after fifteen months, and then started as a Ph.D. candidate at the Communication Department in Nijmegen. In addition to conducting the research presented in this dissertation, Mariska taught various communication courses at this department and at the University of Amsterdam. Moreover, she was a lecturer at the Department of Pedagogical Sciences and Educational Science at Radboud University Nijmegen. She was also involved as junior researcher in a project on journalism education in Flanders, which was conducted on behalf of the Flemish Government (Ministry of Culture, Youth, Sports, & Media). In 2010, Mariska spent a few months as visiting scholar at the Telecommunications Department at Indiana University Bloomington, USA. Mariska's research has been published in several communication journals, including *Communication Research*, *the Asian Journal of Communication*, and *The International Encyclopedia of Communication*. At present, Mariska works as postdoctoral researcher and lecturer at Radboud University Nijmegen. In addition, she works as a researcher at the Windesheim University of Applied Sciences in Zwolle.

