# ENGAGING THROUGH ENTERTAINMENT? 

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## MASTER'S THESIS

SEPTEMBER 2015
DEPARTMENT OF POLITICAL SCEINCE UNIVERSITY OF SOUTHERN DENMARK

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## ACKNOWLEDGEMENTS

This thesis is not only the end of my official status as a political science student. It also functions as a full service pit stop and a pole position for the last laps on my way to the PhD degree. As a PhD student on the $4+4$ model I have had the unique chance of joining a research project and becoming part of an international research environment at a very early stage. I have benefitted tremendously from these experiences, and I am very thankful to Erik Albæk and Claes H. de Vreese for giving me this opportunity. Joining forces with Erik and Claes as well as Jakob Ohme and Camilla Bjarnøe Jensen in the Communication and Public Engagement project is truly one of the best possible setups one can imagine. And with the additional advice from Morten Skovsgaard it simply does not get any better.

Thanks for the support until now. I look forward to continue the race with all of you!

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## CHAPTER 1

## INTRODUCTION

One of the fundamental pillars of democracy, the media, has potentially turned into one of its fundamental threats as well. A healthy democracy requires well-informed citizens, who are willing to engage and participate in their society (Strömbäck, 2005; Putnam, 2000). Most people primarily get information about politics through the media, but during recent decades the media environment has changed fundamentally (Prior, 2007). With a growing commercialization and new online technology the availability of media outlets has proliferated, and citizens now have the possibility to create their own personal media diets based on individual preferences. Since most people do not have a high preference for political news and information (Prior, 2007; see also section 1.2), the media are increasingly mixing entertainment and politics in order to attract people's attention (Williams \& Carpini, 2011; van Zoonen, 2005).

These two developments-a fragmentation and individualization of the media environment and a convergence of politics and entertainment-have led to considerable variations in the amount and type of political information citizens are exposed to and thus the levels of knowledge that they act upon (Prior, 2003; 2005). Since information is a crucial factor on the road to engagement (Zaller, 1992), these developments are likely to have considerable consequences for our society. However, these consequences are not necessarily negative. If it is possible to entertain people while giving them political information (Baum, 2002; 2003; Baum \& Jamison, 2006; Hollander, 2005), it might be possible to engage them trough entertainment. In other words, it is not clear whether the effect of entertainment in the dissemination of news is positive or negative. The literature has mainly focused on
consequences for political knowledge and attitudes (e.g., Baum, 2002; 2003; Boukes \& Boomgaarden, 2014; Hollander, 2005), while research on actual political behaviour is very limited. The goal of this thesis is to narrow this gap in the literature by examining how entertainment in the media's dissemination of political information affects citizens' political participation.

In this chapter I firstly unfold the central causal argumentation further and define the key concepts. Afterwards I present the research design and outline the five studies, which have either already been conducted or are planed to be conducted in order shred light on the overall research question. As this master thesis is part of my PhD project, the first two of these five studies will be presented in their full length in Chapters 2 and 3, while only the current ideas for the three additional studies will be presented in Chapter 4. In Chapter 5 I add some concluding remarks on which lessons can be drawn based on the two first studies and what the additional studies are expected to contribute with.

### 1.1 A changing media environment and a changing audience

A central assumption in this thesis is that politics is a mediated experience. Almost all information, which people get about politics, they get from the media (Strömbäck, 2005). But the media environment is changing. Two main factors are driving this change-a growing commercialization and new technological possibilities.

Commercialization of the media environment intensified when government regulations were relaxed on broadcasting, leading to a growing competition between public broadcasters and new private providers. Without a monopoly, news outlets could no longer assume that people would tune in. Instead, they had to adapt to audience preferences. As a consequence, news providers became guided by a media logic with commercial survival as its main aim,
instead of a public logic with informing the audience as its primary goal (Brants \& van Praag, 2006). New technological possibilities, especially those provided by the Internet, have enhanced this tendency. Together, these two developments have created a boom in the number of media outlets-both in regard to type and content. As a specific consequence for research, it is therefore also getting more difficult to measure media use and study its effects. Therefore, the second chapter in this thesis is also fully devoted to study the best way of measuring peoples' media use in this environment.

The changing media environment has naturally affected the audience as well. The news provider boom created a fragmented media environment, where people have the possibility to shape their own media diet based their individual preferences (Prior, 2007). Thus, people now get their news from a variety of different sources. Data from our own survey testify to this tendency as well (see section 1.6 for data specifications). Here we asked a general population sample as well as two subsamples of adolescents and elderly several questions about their news preferences.

FIGURE 1.1: Preferred place to get political news across generations (Pct.)


[^0]Firstly, we asked our respondents from where they prefer to get their political news. The results are shown in Figure 1.1. The results show how television in general is the most preferred place to get political news. However, adolescents and the general population seem to leave the traditional printed newspapers behind and turn toward the Internet to a higher degree than the elderly. These patterns indeed reflect how the media environment has fragmented and increasingly is becoming individualised.

FIGURE 1.2: Importance of being updated on political news (Pct.)


Question: Where do you prefer to get news about politics?
$0=$ not at all important, $10=$ very important.
$N_{\text {Adolescents }}=1,047, N_{\text {Population }}=3,419, N_{\text {Elderly }}=1,518$.

Secondly, we asked our respondents how important they think it is to be updated on political news. The results are shown in Figure 1.2. It has been argued that the fragmented media environment crates to types of extreme news consumers-'political junkies' and 'dropouts' or alternatively 'news-seekers' and 'news-avoiders' (Bennett \& Iyengaar, 2008; Strömbäck et al., 2012). However, most people vary in their degree of political awareness and fall in between these two extremes (Zaller, 1992). Our data supports this latter interpretation, but
there are also important differences across generations. While the distributions are skewed to the left for the general population and the elderly, who find it very important to be updated on political news, the distribution is more normally distributed for adolescents, who do not at all find it equally important to be updated. Thus, only around 7 per cent of adolescents find it "very important" to be updated on political news, while the same number is respectively 18 per cent for the general population and 26 per cent for the elderly.

FIGURE 1.3: Relative entertainment preference across generations (Pct.)


Note: Numbers indicate preference for news only (Part A) or both news and a political show (Part B); $0=$ number 1 preference, $1=$ number 2 preference, $2=$ number 3 preference, 3, number 4 preference, $4=$ neither preferred or disliked, 5 $=$ disliked. $N_{\text {Adolescents }}=1,047, N_{\text {Population }}=3,419, N_{\text {Elderly }}=1,518$.

Inspired by Prior (2007), we finally created a measure for our respondents' relative entertainment preference, reflecting how much they prefer entertainment relative to news. This measure relies on the assumption that television viewers at any given time have to commit to one specific program containing either political news and information or entertainment. Thus, the respondents were told to imagine that they were watching television at eight o'clock on a normal weeknight and were then asked to rank their four most preferred television genres from a list of ten different genres. The list included news, political show, movie, game show, reality show, documentary, serial, lifestyle program, sports program, and
music program. Afterwards they were asked if they "really dislike" any of the six remaining genres. Based on these two questions a measure ranging from 0 to 5 was created. The measure was coded from 0 to 3 if news or a political show were their first, second, third or fourth most preferred genre. The measure was coded 4 if the respondent neither preferred nor disliked news or a political show. And finally the measure was coded 5 if the respondent really disliked news or a political show. The distributions for this measure across our three samples are shown in Figure 1.3. Part A of the figure shows the distributions when the measure is based on the respondents preference for news only, while part B shows the distribution based on both news and a political show. The results show how the general population and the elderly have a relatively low entertainment preference compared to adolescents. The largest segments of the general population and the elderly have news or a political show as their number one preference, while the largest segment of the adolescents neither like nor dislike these television genres. However, almost 16 per cent of the adolescents really dislike news or a political show, while this number is only 3.5 and 1.5 for the general population and the elderly respectively.

Two main lessons can be drawn from our three questions about news preferences: 1) people get their news from a broad variety of sources and on different platforms and 2 ) younger people think it is less important to be updated on news and prefer entertainment over news to a larger degree than the rest of the population, especially the elderly. No matter if these tendencies are the result of a generational effect or a life cycle effect, or partly both, it is important to get knowledge about the democratic consequences of these developments.

### 1.2 Media effects: malaise or mobilization?

Research in political media effects can in general be divided into two perspectives. On one hand we find scholars who see the media causing a lot of negative outcomes, e.g. political alienation, inefficacy, and a decline in participation. This perspective, know as the "media malaise" tradition, can be traced back to Robinson (1976), who accused the critical coverage of politics in American media after the Watergate scandal-especially in television-to lower the trust in the political system and spark a sense of powerlessness among the voters. Other scholars later found similar tendencies (e.g. Capella \& Jamieson, 1997; Putnam, 2000). On the other side we find scholars who instead see the media causing positive outcomes. This perspective often refers back to Norris (2000), who introduced the term "virtuous circle" when she found that media coverage of politics helps "to improve our understanding of public affairs, to increase our capacity and motivation to become active in the political process, and thereby to strengthen civic engagement" (2000: 317).

These differences in expectations to media effects has been labelled as "...a baffling contradiction at the heart of journalism research..." (Curran et al., 2014: 816). But surprisingly it seems as if both perspectives are partly right. Thus, a third perspective argues that media effects are contingent on audience characteristics (Zaller, 1992) as well as the type and content of different media outlets (e.g., de Vreese \& Boomgarden, 2006). In regard to the type of media outlet, there has especially been a distinction between public service broadcasting and commercial TV channels (Cushion, 2012). Here it has been shown that public service television has positive effects on knowledge, efficacy, interest, and engagement, while commercial television has negative effects (Aarts et al., 2012; Aarts and Semetko, 2003; Curran et al, 2014; Soroka et al., 2013; Strömbäck \& Shehata, 2010). Similarly, Newton (1999) has shown that broadsheet newspapers and television news is
positively associated with knowledge and mobilization, while use of tabloids and general television (entertainment) watching is associated with lower levels of mobilization. However, in regard to content, de Vreese and Boomgaarden (2006) found that news outlets with high levels of political information lead to more knowledge and higher turnout, whereas news outlets with less political content has either no effects or slightly positive effects. Thus, they conclude, "... it is less consequential whether people watch the news on a public or commercial station, but rather whether people watch the news at all or turn to entertainment programming" (p. 331).

### 1.3 Entertainment as a possible saviour

Entertainment media is often accused of undermining citizens' engagement in society (e.g., Prior, 2005; 2007; Putnam, 2000). As Buckingham (1997: 354) writes, "...there is a widespread belief that the news media are no longer fulfilling their historic role of producing "informed citizens"", and that "We are ... entering a state of terminal political apathy, for which television entertainment is principally to blame". The logic behind this accusation is that most people have to "do" politics in their leisure time, and leisure is a highly competitive sector (van Zoonen, 2005). Instead of reading the newspaper or going to a demonstration people can watch a movie or go to the gym. Thus, politics has to compete with a large range of more entertaining activities to gain people's attention, interest, and engagement.

With the growing preference for entertainment, it has been argued that "Politics has to be connected to the everyday culture of its citizens; otherwise it becomes an alien sphere, occupied by strangers no one cares and bothers about" (van Zoonen, 2005: 3). This line of reasoning contradicts the normal view of politics as rational communication (Habermas, 1989). In this understanding, there is no room for the "irrational" side of language found in
entertainment. But as Fiske (1992) has argued, news does not get its value from its information accuracy, but from the extent to which it is of relevance for the everyday lives of the audiences. Thus, news should become more entertaining in order to stay relevant. And to some extent this is already happening. As part of the changing media environment, entertainment now takes up a growing amount of space in the dissemination of political information in order to keep the audience (Williams \& Delli Carpini, 2011). As a consequence, the line between news and entertainment has blurred, and there has been a dramatic change in what constitutes news.

With the growing importance of entertainment in the dissemination of political news and information more and more scholars have started to look into the effects of this type of media content. Just as the general literature on media effects has thought us, the lesson from this emerging literature seems to be that the effects are contingent on both the specific content and the audience (Carpini, 2012). In regard to the specific content, Holbert (2005a) has shown how entertainment in television programs related to politics varies a lot, including different types of programs such as entertainment talk shows with politicians, fictional political dramas, and political satire among others. In my PhD project I will focus on traditional news sources, such as TV news and newspapers, and the entertaining development within these news outlets. I will do so by focusing both on the outlet level and on specific content characteristics. On the outlet level the development towards entertainment has manifested itself in a distinction between soft and hard TV news (Reinemann et al., 2012), and in the classical distinction between tabloid and broadsheet newspapers (Brants, 1998). In regard to specific content characteristics, an entertaining dissemination of news often includes less political information and is reported in an episodic way, e.g. by using exemplars (Reinemann et al., 2012). Even though audiences may not turn to these more entertaining news media
types primarily for political information, they will clearly be exposed to it. In this way, entertainment media can serve as an alternative source for political information, especially for those who turn away from more traditional news sources (Carpini, 2012).

Pure entertainment is known to be negatively associated with political attitudes and participation (Putnam, 2000; Moeller \& de Vreese, 2013). But knowledge about the effect of the mix between news and entertainment is less clear. Past research has shown how soft news can increase political knowledge for the least political attentive people (Baum 2002; 2003) and improve the ability to vote in line with one's preferences (Baum \& Jamison, 2006), but also lead to higher levels of political cynicism (Boukes \& Boomgaarden, 2014), However, studies on the effect on actual political behaviour, such as political participation, are very rare (for an exception, see Moy et al., 2005). The aim of this project is to narrow this gap in the literature.

### 1.4 Political participation as more than turning out

For many years electoral participation, and especially voting, has been seen as the most important indicator of political participation (cf. Ekman \& Amnå, 2012; Brady, 1999). However, it seems clear that political participation today has expanded well beyond the single act of casting a vote (Verba et al., 1995; Putnam, 2000). Thus, recent studies have shown the importance of including newer forms of political engagement (Zukin et al., 2006), for example buy- or boycotting products for political reasons (Ward \& de Vreese, 2011) or engaging in politics online (Hosch-Dayican, 2014). These alternative forms of participation have been pointed out as being important since the traditional ways of political participation have decreased in many countries (Bennett, 1998). Although the turn out voting rate has been fairly stable in Denmark during the last decades, alternative forms of engagement are very
relevant, since they seem to take up a growing amount of citizens' engagement relative to traditional participation forms (Zukin et al., 2006).

The expansion of ways in which people participate in politics has naturally led to questions about the boundaries of the concept of participation and demands for clear definitions. According to van Deth (2014: 351), "Political participation can be loosely defined as citizens' activities affecting politics". More detailed, Verba et al. (1995:38) define political participation as "activity that has the intent or effect of influencing government action-either directly by affecting the making or implementation of public policy or indirectly by influencing the selection of people who make those policies". However, other scholars have underlined the importance of including less active, "pre-political" forms of participation, such as political interest and attentiveness or life-style politics, in order to understand the developments in people's political engagement (Ekman \& Amnå, 2012). These actions are not directly aimed at influencing persons in power, but nevertheless express an engagement in politics.

With these different perspectives in mind my PhD project will have an inclusive approach to political participation and distinguish between offline and online modes of participation as well as active and passive types of participation (for similar approach see Bakker \& de Vreese, 2011). By including online and passive forms of participation the project takes into account that political participation is evolving (Bennett, 1998) and that especially young people have different political values than their parents (Buckingham, 1997).

### 1.5 Research design and data

In order to investigate the relationship between entertainment in the media's dissemination of political information and citizens' political participation I intent to conduct five independent studies in my PhD project. The two first studies are presented in their full length in this master thesis, while only the plans for three additional articles are outlined. As mentioned, today's high-choice media environment has made it more difficult than ever to measure media use and study its effects. Thus, the first study (Chapter 2) focuses on the independent variable-media use-and how to measure this concept. Moving to the effects, the second study (Chapter 3) examines the indirect effects of using different types of news media (hard and soft TV news as well as printed and online versions of tabloids and broadsheets) on political participation through knowledge and efficacy. In the third study (Section 4.1) I plan to examine how age moderates the effect of different news media types on political participation, focusing on differences between adolescents and elderly. In the fourth study (Section 4.2) I plan to examine the reciprocal effect between exposure to political information and political participation and investigate how these relationships are moderated by peoples' relative entertainment preference (described in Section 1.1). In the last, fifth study (Section 4.3) I plan to take a closer look at a specific element of entertainment in news-the use of exemplars-and how this affects political participation. The overall relationships between the key concepts in these five studies are illustrated in Figure 1.4. Together, these studies reflect an understanding of media effects as both mediated, reciprocal, and moderated by characteristics on the individual level (Valkenburg \& Peter, 2013).

In order to complete the five studies briefly outlined above, I rely on a five-wave panel survey and a survey pre-test conducted in Denmark as well as a content analysis of Danish news media outlets. The third and fourth survey waves were conducted in connection to the
national election in 2015, enabling an interesting opportunity for comparing non-election and election time. The data collection is part of the research project Communication and Public Engagement, conducted at the Centre for Journalism, University of Southern Denmark, directed by Erik Albæk and Claes H. de Vreese and funded by a SDU 2020 grant. The data collection is still to be fully completed. Currently we have conducted the pre-test and the first four waves of the panel survey and have started to plan the content analysis. Despite the downsides of panel mortality and response contamination, a longitudinal panel data is the best solution when studying dynamic processes, such as media effects. In contrast to crosssectional surveys that measure course and effect at the same point in time, longitudinal surveys make it possible to draw more firm and reliable conclusions about the causal relationship by looking at changes at an individual level. The advantage of this individuallevel design is further enhanced by linking the survey data of the respondents' media use with content analysis of the specific outlets, as done in some of the studies.

FIGURE 1.4: Causal relationship between key concepts in the PhD project


The five-wave panel survey and pre-test are conducted in collaboration with the research agency Epinion. The panel survey includes representative samples of the general Danish population as well as two subsamples of adolescents (age 17-21 in first wave) and elderly (age 65+ in first wave). The samples for the general population and the elderly were drawn from Epinion's database with a light quota sample technique on gender and age. 10,315 people from the general population and 3,059 elderly were invited per email. 4,641 people from the general population sample (response rate: 45 pct .) and 1,949 people from the elder sample (response rate 59.9 pct.) completed the first wave. Further, we randomly drew 9,000 names and addresses on adolescent via the Danish Civil Registration System (CPR). These 9,000 adolescent received a letter invitation to join the survey. 1,831 of the invited adolescents completed the first wave (response rate: 21.7 pct .). During the data collection for all waves, the samples receive both CATI and SMS reminders in order to boost the response rate. Table 1.1 show the number of respondents and the attrition rate for the survey waves conducted until now.

TABLE 1.1: Panel survey sample overview

|  | Wave 1 | Wave 2 | Wave 3 | Wave 4 | Wave 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Field period | Nov. 212014 | Apr. 102015 | May 272015 | June 192015 | Approx. Nov. |
|  | - Jan. 52015 | - Apr. 222015 | - June 152015 | - June 292015 | 2015 |
| General population |  |  |  |  |  |
| N | 4,641 | 3,419 | 2,951 | 2,680 | - |
| Attrition rate (pct.) |  | 26.3 | 13.7 | 9 | - |
| Adolescents |  |  |  |  |  |
| N | 1,949 | 1,047 | 740 | 546 | - |
| Attrition rate (pct.) |  | 46.3 | 29.3 | 26.2 | - |
| Elderly |  |  |  |  |  |
| N | 1,831 | 1,518 | 1,398 | 1,292 | - |
| Attrition rate (pct.) |  | 17.1 | 7.9 | 7.4 | - |

All survey waves are conducted online, which has a lot of advantages in terms of reach, speed, and economy. The questionnaires included 49 questions in the first wave, 29 questions
in the second wave, and 22 questions in the third and fourth wave. The questions cover a lot of measures, from the dependent variable, political participation, over different sociodemographic variables and political attitudes, to the independent variable, media use. In addition to these measures, it is further planned to include a survey experiment in the fifth wave in order to study the effect of using exemplars (see Section 4.3).

The content analysis will include data from the most prominent Danish media outlets, including three broadsheet newspapers (Berlingske, Jyllands-Posten, and Politiken) and two tabloid newspapers (Ekstra Bladet and BT) as well as a number of hard (TV-Avisen (DR1), Nyhederne (TV 2), Deadline (DR2), and DR2 Dagen (DR2)) and soft (Go'aften Danmark (TV2) and Aftenshowet (DR1)) TV news programs. The relevant newspaper articles will be collected via Infomedia.dk, and for the television programs DR and TV2 provide us with the program subtitles. The content data is gathered for time periods connected to the survey waves in order to link these two data sources. The specific details for the content analysis are still under development, but relevant for this PhD project, it is among other things the intention to include analysis of the amount of political information (see Section 4.2) and the use of exemplars (see Section 4.3). To the extent possible, these analyses will be automated.

Overall, the use of both the panel survey and content analysis provides my PhD project with solid a foundation to conduct the individual studies and to answer the overall research question. Table 1.2 gives a detailed overview of the five studies in my PhD project, including the relevant variables and applied data sources.

Finally, a few remarks on the context of the project. Denmark, where the project is conducted, is a part of the democratic corporatist media system (Hallin \& Mancini, 2004). As part of a public service system, the media devotes more attention to politics and therefore encourage higher levels of news consumption than market driven media systems (Curren et
al., 2009). These characteristics are reflected in the fact, that only 3 pct. of the citizens in Denmark do not get any news at all (Albæk et al., 2014: 176). These settings make Denmark ideal for exploring media effects on political participation, since these are most likely to occur. Further, prior research on the topic has mainly been done in an American context. By conducting the study in Denmark, the dissertation will not only bring us closer to understand the behavioural effects of soft news and infotainment, but also bring the discussion into a European perspective.

TABLE 1.2: Overview of studies in PhD project

|  | DV's | IV's | Mediators | Moderators | Data |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Chapter 2: <br> Measuring Political <br> Media Diet in a <br> High-Choice <br> environment | Current affairs knowledge | Exposure to political newspapers, radio, TV, and webpages |  |  | Pre-test + <br> Wave 1 |
| Chapter 3: <br> Participation pathways? | Offline/online political participation | Broadsheet/tabloid newspaper (print/online) + Hard/soft TV news programs | Current affairs knowledge + internal efficacy | Non-election/ election time | Wave 1-4 |
| Section 4.1: <br> Media use and political participation across generations | Offline/online + Active/passive political participation | Broadsheet/tabloid newspaper (print/online) + Hard/soft TV news programs |  | Age cohorts (Adolescents and elderly subsamples) | Wave 1, 2, and 5 |
| Section 4.2: <br> The reciprocal relationship between political information and political participation | Active/passive political participation --- <br> Exposure to political information | Exposure to political information --- <br> Active/passive political participation |  | Relative entertainment preference | Wave 1, 2, and 5 + Content analysis |
| Section 4.3: <br> The engaging effect of exemplars | Active/passive political participation | Exposure to exemplars in different types of news media outlets |  |  | Wave 1-5 <br> + Content analysis <br> + Survey- <br> experiment |

## CHAPTER 2

# MEASURING POLITICAL MEDIA DIET IN A HIGH-CHOICE ENVIRONMENT* - TESTING THE LIST-FREQUENCY TECHNIQUE 


#### Abstract

Exposure to political information in the media is a core concept for communication scientists. How to measure this concept is highly disputed, primarily due to the difficulties of getting accurate selfreports. The growing supply of outlets and political information has added an additional level of complexity to these problems. Reflecting on old and new approaches it is argued that both the specific source and the frequency of exposure must be taken into account. The validity of this so-called "listfrequency technique" is tested using a large-scale representative survey from Denmark $(\mathrm{N}=4,641)$ as well as a split sample experiment from the survey pre-pest $(\mathrm{N}=291)$ to enable comparison with the simpler "list technique". The results support the list-frequency technique in being the best current solution, since it provides the same aggregate estimates of media use as the already validated list technique, and further gives more detailed effect estimates and increases the amount of explained variance when predicting levels of political knowledge.


[^1]
### 2.1 Introduction

Causes and effects of exposure to information in the media is a fundamental concern of communication scientists. To study these causes and effects in real world settings they often use survey data. However, measuring media exposure in surveys is related to several problems, which in Bartels words have led to "one of the most notable embarrassments of modern social science" (1993: 267). In this article we will argue that the problems are caused by two main factors. First of all, respondents are bad at giving accurate answers about their media exposure. Secondly, the media environment has changed fundamentally during the last decades and now contains more sources of information than ever before. As a natural consequence it is more difficult than ever to get valid and reliable measures.

In recent years this challenge has led to a renewed discussion in the literature with different solutions being proposed (see e.g. Dilliplane et al., 2012; Goldman et al., 2013; Prior, 2009a; 2013). In the light of this discussion, the purpose of this study is to present a refined survey measure that takes the challenges mentioned above into account. Focusing on exposure to political information and news, we argue that it is highly important to include both the specific source and the frequency of exposure in the measure, in order to assure a better solution for measuring individuals political media diets in the high-choice media environment of the early $21^{\text {st }}$ century.

The study first identifies the problems with current measures. Possible solutions are discussed and the ideas for a refined measure are presented. Afterwards the refined measurethe so called "list-frequency technique"-is tested. It is shown how this technique is equally reliable and valid as the simpler "list technique", which does not take account of the frequency of exposure. But further the list-frequency technique also improves our understanding of media effects, since measures based on this technique increase the amount
of explained variance and the effect estimates when predicting levels of political knowledge compared to measures based on the simpler list technique. Finally, pros and cons of the listfrequency technique are discussed and directions for further possible improvements are outlined.

### 2.2 Theory

### 2.2.1 The challenges of measuring media exposure

As Price (1993: 615) puts it "One of the fundamental tasks confronting survey researchers interested in the processes and effects of mass communication is to elicit from respondents accurate self-reports of their mass media use." This claim is supported by a still growing list of research, which has shown that people have a tendency to overstate their news exposure (LaCour \& Vavreck, 2014; Prior, 2009a; 2009b). Theoretically, this problem can be caused be three factors-social desirability, satisficing, or unrealistic demands on respondents' memory. However, using an experimental approach Prior (2009a) finds that the only real reason seems to be the latter. One of the reasons for this problem lies in the way the media exposure questions are normally formulated (Price \& Zaller, 1993). An often-used example is "How many days in a regular week do you watch news on TV?" When answering a survey question like this, respondents normally go though four cognitive tasks: 1) deducing the intent of the question; 2) searching memory for relevant information and retrieving it; 3) integrating the information into a single judgement; and 4) translating the judgement into a response from among the alternatives on offer (Tourangeau \& Rasinski, 1988). Asking about "a regular week" as well as "news in TV" requires a lot from the respondents, especially in the first and second step. Evaluating "a regular week" is a lot in it self, but asking about "news on TV" further requires that the respondents to evaluate what news on TV actually includes. This
requirement is particularly problematic in today's high-choice environment. What kind of content is news and what is not? Is watching news on a computer or mobile device to be included, or is it only watching news on a regular television? Ambiguities like these make it hard for the respondents to give accurate answers.

Besides the problems connected to the respondents' self-reported answers, a new problem has emerged-today's media landscape and content are fundamentally different from only a few decades ago. The availability of media outlets has proliferated and political information now comes in many different forms. Traditional media like newspapers, radio, and television have increased in numbers, expanded to new platforms, and are now accompanied by the Internet and all its possibilities. In addition, political information is no longer only available in news programs, but also in genres like soap operas, comedy shows, and political satire (Holbert, 2005a). In this high-choice environment media usage is more diversified and fragmented. More than ever before, people can now find the content that gives them the highest level of satisfaction, resulting in both 'news drop-outs' and 'political junkies' (Garret, 2009; Prior, 2007). In terms of measuring exposure to political information, this development adds an additional level of complexity to the already mentioned problems related to the self-reported answers. With the overwhelming number of different possibilities accessible today, it seems clear that it makes little sense to ask respondents to evaluate the overall amount of news they have been exposed to. Instead, measures need to be developed further to give an accurate account of what people are actually exposed to.

### 2.2.2 The current solutions

Despite the pitfalls of using surveys to measure exposure to political information in the media, the overall advantages are still so prominent that the method needs to be refined rather
than dismissed. In Slater's words "expanded use of more sophisticated designs and methods is necessary if the media effects and campaign research area is to continue to advance" (2004: 179). And just as the literature points to considerable challenges for measuring media use, several attempts to meet these challenges have been made as well.

Regarding the challenges of self-reporting, Price (1993) has shown that providing respondents with more specific and recent time periods in the questions such as "past week" instead of a "typical" or "average" week significantly lower overall reports of usage and thereby gives more valid and reliable measures. This finding underlines the importance of constructing the questions as precise and accurate as possible to lower the demands on respondents' memory. With the same purpose in mind Prior (2009a) argues that questions should be accompanied by population frequencies. These frequencies should function as reference points and thereby help respondents anchoring their answers. Others have gone even further and are now automatically tracking media use through cell phones to be independent of respondents' memory (LaCour, 2013). At first sight the method is quite simple; the cell phones record the sound in the respondents' surroundings and afterwards it is compared to the sound from the media. However, despite the initial appeal and recommendation of this approach (Prior, 2013), it appears unrealistic to imagine that it would be possible to implement it in all future media research. The approach is highly expensive and demanding in terms of technological requirements or collaboration with external partners. Further, researchers will have no idea whether people actually used the media or just got registered as such because they were nearby the media source without paying attention.

As for the self-reported answers, more specification is also needed to handle the challenges of the changing media environment (Slater, 2014). In this regard, some studies have tried to increase the level of specificity by asking for a limited list of widely read or
watched news outlets. This approach has for example been the strategy for the European election studies since 1999 (see http://eeshomepage.net) and has been used in other crossnational studies (e.g., van Spanje \& de Vreese, 2014). Dovetailing with the latter approach, Dilliplane et al. (2012) developed what they dubbed "the program list technique". In this measure the respondents are presented with a list of specific television programs and asked to check of the programs they watch "regularly" (at least once a month). The measure was first implemented in the National Annenberg Election Study in 2008 and later in the American National Election Study in 2012. According to Dilliplane et al. this type of approach have two main advantages. First, it decreases the cognitive demands placed on the respondents. The reason is that respondents are more likely to recall the programs they have watched than how many hours or minutes they have watched (news on) television in all. Second, the approach promotes so-called content validity by listing all relevant programs and thereby eliminating the problem of having each individual respondent evaluating whether the content they have been exposed to is relevant (i.e. count as news). However, the program list technique can also be criticized (Prior, 2013). Most importantly, the measure does not capture the amount of exposure to the different programs. A respondent who watched a program one time in a month and a respondent who watched the same program every day will be treated equally, although the effect is most likely not to be the same.

Despite this shortcoming, the program list technique is a step in the right direction. By asking about specific programs it addresses the problems of the high-choice media environment and decreases the cognitive demands on the respondents' memory. LaCour and Vavreck (2014) have used the earlier mentioned cell phone tracking method to compare the traditional approach and the program list technique with actual exposure. First, they find a positive relationship between the traditional approach and actual exposure. Second, they also
find a positive relationship between the traditional approach and the new program list technique. Based on these findings, they argue that increasing values of the program list technique would reflect increasing amount of actual news viewing. However, LaCour and Vavreck also point to problems associated with the program list technique. They find that there are people scoring a zero on program count who are actually consuming more than 10 hours of news a month. This shortcoming is caused by the fact that not all news shows are included in the original version of the program list technique. To solve this problem LaCour and Vavreck suggest that the number of programs that people are asked about should be increased. Especially, they encourage that programs only including "a little bit" of news (e.g. local news and news specials) should also be included in the list.

Another possible advantage of the program list technique is that it "has the potential to be used in measuring exposure to other media as well" (Dilliplane et al., 2012: 1). An attempt to pursue this potential on the Internet has recently been made by Guess (2015). Using an intelligent experimental design he compares three different survey exposure measures to the Internet browsing history of the respondents. The results show that open-ended questions produce the most accurate picture on an aggregate level. However, open-ended questions are hard to administer in large-scale surveys. Therefore it is interesting that the list technique-or "check-all questions" as Guess call them-is the second best solution when trying to capture exposure to specific websites.

To sum up, it seems clear that the traditional survey questions for exposure to political information in the media are related with considerable methodological concerns and in need of an adaptation to today's high-choice environment. A promising alternative is the list technique. Although the approach has its shortcomings, it also contains a potential that need to be pursued.

### 2.2.3 What to do then?

Despite the advances outlined above, we will argue that the program list technique is still problematic on methodological grounds. Therefore, we suggest adjusting the program list technique into a "list-frequency" technique, taking account of three essential shortcomings. First and foremost, the frequency of exposure needs to be taken into account. Secondly, the amount of use must be captured on other platforms than television. Thirdly, the time between exposure and reporting needs to be minimized. This technique has in a simpler version, focusing on typical use of a limited amount of platforms and outlets, been used in previous research (e.g. de Vreese \& Semetko, 2004). However, the technique has never, to the best of our knowledge, been validated and compared to simpler techniques. In the following we describe the improvement of the program list technique before testing the suggested listfrequency technique.

The program list technique has so far been restricted to television (Dilliplane et al., 2012) and the Internet (Guess, 2015). What we need is a measure that can capture media exposure to political information across different media. Therefore, the refined measure presented here takes two other media types into account by including newspapers and radio as well as television and the Internet. To prevent that certain respondents answer strategically in a filter question to avoid the following questions, all respondents should be asked about their newspaper, radio, television, and Internet use respectively. Thus, all respondents will be presented with a list of specific newspapers, radio stations, television programs, and websites as well as a category for only using other sources than the listed ones and a category for not using the specific media type at all. Which specific sources the list should contain are dependent on the purpose of a specific study. However, in most cases the optimal solution will be to include a wide range of sources from hard news to soft news and entertainment, as
we do in this study. This solution ensures that all respondents-also those with no 'classical' political information consumption at all-have something to choose on the list.

Further, the list-frequency technique focuses on the respondents' media exposure during the past week. There are three reasons for this. First, this approach will decrease the cognitive demands put on the respondents' memory, since it is easier to remember the media content one have been exposed to during the past week than during the past month or in an average week (Althaus \& Tewksbury, 2007). Second, asking about the past week makes it more likely to observe changes in exposure over time when conducting panel surveys. Only asking respondents about their "regular" use reduces the variability in respondents' answers in such a design. However, if a panel design is not at hand, use of the "regular week" approach can be used instead to reduce unwanted context specific variation. Third, asking about the past week makes it possible to link respondents answers to the specific content they have been exposed to. This possibility will especially be an advantage if the researchers wish to conduct a parallel content analysis.

In addition to the number of media types included and the time period of reference, the refined measure will most importantly also take account of the frequency. Thus, the respondents are not only asked whether or not they have been exposed to specific sources, but instead how many days during the past week they have been exposed to them. Further, the scale will not include a "don't know" category. Alwin and Krosnick (1991) have shown that including such a category in survey questions does not increase the reliability, and furthermore excluding the category minimizes the risk of satisficing. Lastly, all answer options will be set to zero from start to ease the work for the respondents. Thereby the respondents only have to change the answer option if they have used the specific source and not actively answer for every single item.

Together the refinements presented above will give a highly detailed and precise measure of media use. The overall structure of the list-frequency technique is shown in Figure 2.1 below and the specific questions and items used to test the measure can be seen in Figure A1 - D2 in the appendix (pp. 44-47).

FIGURE 2.1: Structure of the list-frequency questions
How many days in the past week did you [read] [listen to] [watch] [visit] the following
[newspapers] [radio stations] [TV programs] [websites]?

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Specific source 1 | $\times$ |  |  |  |  |  |  |  |
| Specific source 2 | $\times$ |  |  |  |  |  |  |  |
| Specific source ... n | $\times$ |  |  |  |  |  |  |  |
| I did only [read] [listen to] [watch] [visit] other [newspapers] [radio stations] [TV |  |  |  |  |  |  |  |  |
| programs] [websites] in the past week |  |  |  |  |  |  |  |  |


| I did not [read] [listen to] [watch] [visit] any [newspapers] [radio stations] [TV |
| :--- |
| programs] [websites] at all the past week |

Note: The specific questions and items for each media type can be seen in Figure A1 - A4 in the appendix.

Summing up, the refined measure will improve the program list technique (Dilliplane et al., 2012) in three important ways. Firstly, it will include frequency of exposure. Secondly, it will expand the approach to other media types and include newspapers, radio, television, and websites. And thirdly, it will reduce the time period from exposure to recall and answering.

### 2.2.4 Testing the list-frequency technique

A good survey measure needs to be valid and reliable. However, it is not possible to test the reliability of the list-frequency technique, since it is specifically targeted at media use during the past week in order to capture context specific variations. Thus, we would expect respondents to give different answers over time, resulting in a low reliability score. Instead,
we rely our analyses on Dilliplane et al. (2012), who originally found the simpler list technique to be highly reliable and valid for measuring exposure to political television. If the reported exposure to the different specific sources and outlets do not differ on an aggregate level when using respectively the list-frequency technique and the simpler list technique, the list-frequency technique will have a high convergent validity. Thereby it can be argued that the results found by Dilliplane et al. (2012) for the simpler list technique also apply for the more detailed list-frequency measure-at least in regard to television. Since we have no reason to expect that the two different techniques should provide different estimates of exposure on an aggregate level we purpose the following hypothesis:

H1: There is a high degree of similarity between reported exposure to different media types on an aggregate level when using respectively the list-frequency technique and the list technique

A key argument in this study is that the list-frequency technique provides us with more detailed media measures than the simpler list technique, since it also captures the frequency of exposure. Thereby the list-frequency technique also adds more variance to the media measures. This enrichment is likely to boost the validity of these measures. A common way to test the validity of measures of political media exposure is to examine how they affect levels of political knowledge-also known as the construct or predictive validity. Political knowledge is seen as the most widely accepted (and logical) outcome of exposure to political information (Eveland et al., 2009; Price \& Zaller, 1993; de Vreese \& Boomgaarden, 2006). Thus, an intuitive approach to test the possible advantage of the list-frequency technique is to examine the difference in explained variance when using this technique and the simpler list technique when predicting levels of current affairs knowledge. In this regard, we put forward the following hypothesis:


#### Abstract

H2: Using media measures based on the list-frequency technique increases the amount of explained variance more compared to measures based on the simpler list technique when predicting levels of current affairs knowledge


In addition to the potential increase in explained variance, the list-frequency technique is also likely to affect the effect estimates of the media measures when predicting levels of current affairs knowledge, due to the increased variance in the measures. Since the list-frequency technique provides a more detailed account of media use, it can be argued that this technique should provide more precise effect estimates. In the case that the list-frequency technique produces lower effect estimates than the list technique, it will be an indication of potentially overestimating and inflating media effects when using the simpler list technique. If the listfrequency technique on the other hand produces higher effect estimates it will be an indication of underestimating media effects when using the simpler list technique. However, we have no clear expectations in this regard. Therefore, we finally put forward the following research question:

RQ: How do the effect estimates differ between using the list technique and the list-frequency technique when predicting levels of current affairs knowledge?

### 2.3 Method

To test the list-frequency measure we did two things. First, we conducted a split sample experiment as part of the survey pre-test $(\mathrm{N}=291)$. The experiment enables us to compare our list-frequency technique with the simpler list technique and thereby determine the convergent validity of the refined measure. Second, we tested the predictive validity of the
list-frequency technique using a large-scale cross-sectional survey with a representative population sample $(\mathrm{N}=4,641)$ where the refined measure was implemented.

### 2.3.1 Samples

Both the pre-test and the main survey were conducted in Denmark through self-administrated web questionnaires managed by the market research agency Epinion. The sample for the main survey was drawn from a population representative database with a quota sample technique on gender and age. 10,315 people were invited via e-mail to participate in the main survey, of which 4,641 respondents completed (response rate: 45 pct .). The respondents were invited in four batches during the data collection (November 21, 2014 to January 5, 2015) to adjust the representativeness. The sample for the pre-test experiment was randomly drawn from the same database.

### 2.3.2 Measures

In the analyses of the validity we distinguish between exposure to political information in newspapers, radio, television, and webpages. For each of these outlet types we included those specific sources, which are known to provide quality political information. For newspapers we included the three main broadsheets (Berlingske, Jyllands-Posten, and Politiken). For radio we included three public service channels ( $\mathrm{P} 1, \mathrm{P} 2$, and P 4 ) as well as one private channel (Radio 24/7). For television we included four news shows from the public service channel DR (TV-Avisen, DR2 Morgen, DR2 Dagen, and Deadline) and one news show from the private channel TV 2 (Nyhederne) as well as their 24/7 news channel (TV2 news). For the Internet we included the webpages from the three main broadsheets (berlingske.dk, jyllandsposten.dk, and politiken.dk) and the two main television providers (dr.dk and tv2.dk). When
using the list-frequency technique, we summed the relevant individual sources into indexes reflecting the past weeks amount of exposure to the specific types of media outlets. When using the simpler list technique, we recoded the indexes based on the list-frequency measure into dummy variables reflecting use or non-use of the different types of media outlets. Thus, these measures provide us with the same information, as we would have obtained if we had used the simpler list technique. Current affairs knowledge was measured as the number of correct answers to four questions regarding political happenings, which had recently been covered in the media. Compared to the often-used textbook versions of political knowledge measures this approach is more appropriate, since it closer taps the on going learning from the media, instead of tapping knowledge about the political system, which is mostly acquired through education. Further, gender, age, education, and political interest were used as control variables (see Table A in the appendix (pp. 48-49) for specifications of all variables).

### 2.4 Results

We first compared the list-frequency technique with the simpler list technique using the split sample experiment from the pre-test of the survey, where the respondents were randomly assigned to the two different types of media measures. As mentioned, Dilliplane et al. (2012) found the list technique to be highly reliable and valid when measuring exposure to political television. If we find no difference on an aggregate level between the amounts of exposure reported using the two different techniques, it can be argued that the list-frequency technique is equally reliable and valid.

To enable comparison we adjusted the original measure presented by Dilliplane et al. from asking about which specific television programs the respondents regularly used, to which specific television programs the respondents used during the past week, as we also do
in the list-frequency technique. Further, we applied the same approach for newspapers, radio, and the Internet. A summary of the results from the split sample experiment can be seen in Table 2.1 (for source specific results see Table B in the appendix, p. 50).

TABLE 2.1: Average share reporting use of specific sources within different media types

|  | List technique | List-frequency technique |
| :--- | :---: | :---: |
| Newspapers | 19.4 | 19.2 |
| Radio | 18.1 | 16.0 |
| Television | 26.8 | 29.9 |
| Webpages | 15.4 | 15.2 |
| N | 150 | 141 |
| Note: The analyses show no significant differences between the two measure techniques on average. See Table B in the <br> appendix for differences between specific sources. |  |  |

The experiment revealed no significant differences on an aggregate average outlet level between the two types of measure techniques. We only identified a significant difference at a $95 \%$ confidence level for 8 out of 61 possible items across the four media types (see Table B in the appendix, p. 50). Further, there is no consistent pattern to whether these specific differences are positive or negative or within a specific media type. Thus, we find support for our first hypothesis that there is aggregate similarity in the answers given to respectively the list technique and the list-frequency technique. Thereby, the list-frequency technique has a high convergent validity and is in principal as reliable and valid as the simple list-technique.

To test the predictive validity of the list-frequency technique and compare it to that of the simpler list technique, we examined how media measures reflecting use of newspapers, radio, television, and webpages containing quality political information based on the two different techniques differ in their ability to predict levels of current affairs knowledge. To avoid multicollinearity, we ran five regressions using each of the two techniques-four regressions where we only included one media type at the time and one overall model
including all media types (see Table C in the appendix, p. 51). The results for the full models can be seen in Table 2.2.

Table 2.2: The effect of political media use on current affairs knowledge

|  | Only controls | List technique |
| :--- | :---: | :---: | List-freq. technique | Political media use |
| :--- |
| Newspapers |

Controls

| Gender | $-.490^{* * *}$ | $-.474^{* * *}$ | $-.455^{* * *}$ |
| :--- | :---: | :---: | :---: |
|  | $(.031)$ | $(.031)$ | $(.031)$ |
| Age | $.021^{* * *}$ | $.018^{* * *}$ | $.017^{* * *}$ |
| Education | $(.001)$ | $(.001)$ | $(.001)$ |
|  | $.085^{* * *}$ | $.071^{* * *}$ | $.068^{* * *}$ |
| Political interest | $(.008)$ | $(.008)$ | $(.008)$ |
|  | $.161^{* * *}$ | $.138^{* * *}$ | $.126^{* * *}$ |
| Constant | $(.006)$ | $(.007)$ | $(.007)$ |
|  | $-.286^{* * *}$ | $-.450^{* * *}$ | $-.192 * *$ |
| Adj. $\mathrm{R}^{2}$ | $(.071)$ | $(.075)$ | $(.074)$ |

OLS regressions, unstandardized coefficients, standard errors in parentheses.
*** $\mathrm{p}<0.001$; ** $\mathrm{p}<0.01$; * $\mathrm{p}<0.05 . \mathrm{N}=4,564$

The results show that all the media measures-both the ones based on the list-frequency technique and the ones based on the simpler list technique-significantly and positively affect levels of current affairs knowledge. This is the case both for the models including only one media type at the time (see Table C in the appendix, p. 51) and the models including all the
media types at once. Although it is not possible to compare these results directly to existing findings in the literature, due to differences in operationalization and analytic models, they clearly point in the same direction (e.g. Dilliplane et al., 2012; de Vreese \& Boomgaarden, 2006). Thus, both techniques have high predictive validity. However, we also find important differences between the measures depending on which technique they are based on. Firstly, the media measures based on the list-frequency technique have a higher amount of explained variance than the measures based on the simpler list technique. Secondly, the effect estimates are generally lower for the measures based on the list-frequency technique. But since the models presented in Table 2 displays the unstandardized coefficients, these differences cannot be interpreted directly. The estimates for the measures based on the list-frequency technique reflects the increase in current affairs knowledge when using the specific media type one additionally day during the past week, while the estimates for the measures based on the simpler list technique reflects the increase in current affairs knowledge when using the specific media types at all during the past week.

TABLE 2.3: Difference in effect size and explained variance between list and list-frequency technique

|  | Newspapers |  | Radio |  | Television |  | Webpages |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Beta | $\mathrm{R}^{2}$ | Beta | $\mathrm{R}^{2}$ | Beta | $\mathrm{R}^{2}$ | Beta | $\mathrm{R}^{2}$ |
| List technique | .244 | .059 | .253 | .064 | .216 | .047 | .182 | .033 |
| List-freq. technique | .280 | .078 | .265 | .070 | .319 | .102 | .270 | .073 |
| Difference | .036 | .019 | .013 | .006 | .103 | .055 | .088 | .040 |

Note: Beta and $\mathrm{R}^{2}$ values are based on standardized OLS regressions predicting levels of current affairs knowledge without any control variables. $\mathrm{N}=4.641$

To overcome this inconsistency, we once again used the media measured based on the two different techniques to predict levels of current affairs knowledge. But this time we standardized all variables to enable comparison and left out the control variables to highlight
the direct differences between the two techniques. The results of these analyses are shown in Table 2.3.

The results support the initial findings: using the list-frequency technique increases the explained variance more compared to the simpler list technique when predicting levels of current affairs knowledge. Thus, we also find support for our second hypothesis. Further, after standardizing the models it is possible to compare the size of the effect estimates based on the two different techniques. The results show that-across all media types-measures based on the list-frequency technique provides larger estimates than measures based on the simpler list technique. Thereby we find support for the idea that using the simpler list technique leads to a potential underestimation of media effects.

### 2.5 Discussion

The purpose of this study has been to present a tool for measuring individuals political media diet in surveys, which can meet the methodological challenges communication scientists are facing in todays high-choice media environment in the best possible way. It has been suggested that the list technique, originally presented as the program list technique by Dilliplane et al. (2012), should be refined by taking the frequency of use into account and be expanded to not only include television, but also radio, newspapers, and websites, while reducing the time period between exposure and answering.

The validity and reliability of this list-frequency technique has been tested in different ways. Firstly, we examined the convergent validity of the list-frequency technique by comparing it to the simpler list technique in a split-sample experiment. We found no substantial difference in the aggregate levels of exposure to different media sources between the two different techniques. Therefore we concluded that the list technique is as reliable and
valid as the simpler list technique, which was originally tested by Dilliplane et al. (2012). Secondly, we examined the predictive validity by using measures for use of newspapers, radio, television, and webpages based on the two different techniques to predict levels of current affairs knowledge. We found that measures based on the list-frequency technique increase both the amount of explained variance and the effect estimates compared to the measures based on the simpler list technique. Overall, these results support the list-frequency measure of being the best current solution for researchers interested in examining courses and effect of media use in surveys using self-reported answers.

Although the suggested technique has a lot of advantages, it also includes some compromises and disadvantages. First and foremost, even though the technique is developed for the fragmented, high-choice media environment it is also challenged by this fragmentation. The problem is that the more personalized media exposure becomes, the longer the lists of specific sources become as well. Longer lists mean more time is required to answer the survey. In Dilliplane et al.'s (2012) study the median of answering a question based on a list with approximately 50 television programs was 100 seconds. Including frequency to the measure does not affect this pattern dramatically. In our study the median across all four media types-in total including 54 specific sources-was 123 seconds. However, for most studies this is a substantial portion of the total response time. Therefore it is necessary that the researchers select the specific sources that are relevant to include dependent on the purpose of the study to limit the length of the lists. This situation also underlines that the technique is best suited for researchers conducting their own surveys and with a limited amount of relevant media sources in interest. Thus, the technique might not be well suited for central-administrated big scale surveys like ANES and NEAS including up to 50 television programs alone.

Even though we have tried to limit the amount of over-reporting as much as possible by asking respondent about their media use in the past week and ease the answering process as much as possible, this central concern is without doubt still a problem for the presented technique. However, the amount of this over-reporting is also very likely to be smaller than that of other less refined measures. A final important compromise is that the approach can only be used when the survey is conducted in a written manner (online or postal), since the respondents need to be presented with the list of programs, newspapers or websites. This makes the measure unsuitable for surveys conducted via telephone.

Further improvement of the measure is however also wanted. A general challenge for researchers trying to tap media use through surveys is that these measures typically do not include the attention, which the respondents pay to the media they consume (Chaffee \& Schleuder, 1986; Eveland et al., 2009). This is also true for the list-frequency technique. In this regard, Price and Zaller (1993) have stressed that we need to understand not only who is exposed to news, but more importantly who "gets" the news. In other words, we need to distinguish between simple exposure and reception of news because people are not always fully concentrated when they use media. For example, television viewing can be done as a secondary activity, while one attends to other things (Miller \& Carnell, 1977). One possible way to handle this is by asking the respondents which platform they use to access the specific content. People are likely to make more active choices on new media types such as computers and smartphones than on old media platforms, and are therefore more likely to devote more attention to content accessed though these types of media. On the other hand it can be argued that attention to the new media platforms is more sporadic. Likewise, a central problem is that people can use a lot of the same outlets on different platforms (cross media). Therefore, it will be difficult to incorporate a question about platforms in a survey measure without losing its
simplicity. For the same reason, the measure does not include social media. It is simply not possible to list the content that people are exposed to in this type of outlet. Therefore, respondents should be asked about social media use in a separate measure.

Although the presented technique provides very detailed measures of media use, these measures can also be further enriched. Specifically, it has been suggested that survey data should be linked to content analysis to avoid so-called 'empty exposure studies' (Schuck et al., forthcoming). This approach is especially relevant when studying how specific features of media content (e.g. use of specific frames) affect relevant outcomes or if specific news outlets differ in their coverage, which may lead to expectations about differential effects.

Despite the shortcomings discussed above, the list-frequency technique presented in this paper is a further step in the right direction. The approach is simple and comprehensive at the same time. It lowers the demands on the respondents' memory by using the list technique and asking about media use in the past week. It takes the fragmented media environment into account by expanding the technique to other media types than television. And finally it adds frequency of exposure to the measure and thereby provides a more detailed and precise measure for media exposure.

## Appendix

FIGURE A1: Newspaper list technique
Which of the following newspapers did you read in the printed version (on paper or electronic) in the past week?

| Berlingske | Jyllands Posten | Søndagsavisen |
| :--- | :--- | :--- |
| BT | Kristeligt Dagblad | Weekendavisen |
| Ekstra Bladet | MetroXpress | Regional avis |
| Information | Politiken | Lokal avis |

I did only read other newspapers in the past week
I did not read any newspapers at all the past week

FIGURE A2: Newspaper list-frequency technique
How many days in the past week did you read the following newspapers in the printed version (on paper or electronic)?

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Berlingske | $\times$ |  |  |  |  |  |  |  |
| BT | $\times$ |  |  |  |  |  |  |  |
| Ekstra Bladet | $\times$ |  |  |  |  |  |  |  |
| Information | $\times$ |  |  |  |  |  |  |  |
| Jyllands Posten | $\times$ |  |  |  |  |  |  |  |
| Kristeligt Dagblad | $\times$ |  |  |  |  |  |  |  |
| MetroXpress | $\times$ |  |  |  |  |  |  |  |
| Politiken | $\times$ |  |  |  |  |  |  |  |
| Søndagsavisen | $\times$ |  |  |  |  |  |  |  |
| Weekendavisen | $\times$ |  |  |  |  |  |  |  |
| Regional newspaper | $\times$ |  |  |  |  |  |  |  |
| Local newspaper | $\times$ |  |  |  |  |  |  |  |
| I did only read other newspapers in the past week |  |  |  |  |  |  |  |  |
| I did not read any newspapers at all the past week |  |  |  |  |  |  |  |  |

FIGURE B1: Radio list technique

| Which of the following radio stations did you listen to in the past week? |  |  |
| :--- | :--- | :--- |
| DR P1 | DR P4 | The Voice |
| DR P2 | Radio $24 / 7$ | Local radio station |
| DR P3 | NOVA fm | Foreign radio station |
| I did only listen to other radio stations in the past week |  |  |
| I did not listen to any radio stations at all the past week |  |  |

FIGURE B2: Radio list-frequency technique
How many days in the past week did you listen to the following radio stations?

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DR P1 | $\times$ |  |  |  |  |  |  |  |
| DR P2 | $\times$ |  |  |  |  |  |  |  |
| DR P3 | $\times$ |  |  |  |  |  |  |  |
| DR P4 | $\times$ |  |  |  |  |  |  |  |
| Radio 24/7 | $\times$ |  |  |  |  |  |  |  |
| NOVA fm | $\times$ |  |  |  |  |  |  |  |
| The Voice | $\times$ |  |  |  |  |  |  |  |
| Local radio station | $\times$ |  |  |  |  |  |  |  |
| Foreign radio station | $\times$ |  |  |  |  |  |  |  |

I did only listen to other radio stations in the past week
I did not listen to any radio stations at all the past week

FIGURE C1: Television list technique
Which of the following TV programs did you watch in the past week?

| TV-Avisen (DR1) | DR2 Dagen (DR2) | Go' morgen Danmark (TV2) |
| :--- | :--- | :--- |
| Nyhederne (TV2) | Penge (DR1) | Go' aften Danmark (TV2) |
| Regionale nyheder (TV2) | Horisont (DR1) | Monte Carlo (DR3) |
| Deadline (DR2) | Bag Borgen (DR1) | Robinson ekspeditionen (TV3) |
| TV2 News | Debatten (DR2) | Vild med dans (TV2) |
| DR2 Morgen (DR2) | Aftenshowet (DR1) | Kender du typen? (DR1) |

I did only read other newspapers in the past week
I did not read any newspapers at all the past week

FIGURE C2: Television list-frequency technique

| How many days in the past week did you watch the following TV programs? |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| TV-Avisen (DR1) | $\times$ |  |  |  |  |  |  |  |
| Nyhederne (TV2) | $\times$ |  |  |  |  |  |  |  |
| Regionale nyheder (TV2) | $\times$ |  |  |  |  |  |  |  |
| Deadline (DR2) | $\times$ |  |  |  |  |  |  |  |
| TV2 News | $\times$ |  |  |  |  |  |  |  |
| DR2 Morgen (DR2) | $\times$ |  |  |  |  |  |  |  |
| DR2 Dagen (DR2) | $\times$ |  |  |  |  |  |  |  |
| Penge (DR1) | $\times$ |  |  |  |  |  |  |  |
| Horisont (DR1) | $\times$ |  |  |  |  |  |  |  |
| Bag Borgen (DR1) | $\times$ |  |  |  |  |  |  |  |
| Debatten (DR2) | $\times$ |  |  |  |  |  |  |  |
| Aftenshowet (DR1) | $\times$ |  |  |  |  |  |  |  |
| Go' morgen Danmark (TV2) | $\times$ |  |  |  |  |  |  |  |
| Go' aften Danmark (TV2) | $\times$ |  |  |  |  |  |  |  |
| Monte Carlo (DR3) | $\times$ |  |  |  |  |  |  |  |
| Robinson ekspeditionen (TV3) | $\times$ |  |  |  |  |  |  |  |
| Vild med dans (TV2) | $\times$ |  |  |  |  |  |  |  |
| Kender du typen? (DR1) | $\times$ |  |  |  |  |  |  |  |
| I did only read other newspapers in the past week |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| I did not read any newspapers at all the past week |  |  |  |  |  |  |  |  |

FIGURE D1: Internet list technique

| Which of the following websites did you visit in the past week? |  |  |
| :--- | :--- | :--- |
| berlingske.dk | ekstrabladet.dk | politiken.dk |
| billedbladet.dk | information.dk | seoghoer.dk |
| bt.dk | jyllands-posten.dk | sondagsavisen.dk |
| dagens.dk | kristeligt-dagblad.dk | tv2.dk |
| dr.dk | mx.dk | weekendavisen.dk |

I did only visit other websites in the past week
I did not visit any websites at all the past week

FIGURE D2: Internet list-frequency technique
How many days in the past week did you visit the following websites?

|  | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| berlingske.dk | $\times$ |  |  |  |  |  |  |  |
| billedbladet.dk | $\times$ |  |  |  |  |  |  |  |
| bt.dk | $\times$ |  |  |  |  |  |  |  |
| dagens.dk | $\times$ |  |  |  |  |  |  |  |
| dr.dk | $\times$ |  |  |  |  |  |  |  |
| ekstrabladet.dk | $\times$ |  |  |  |  |  |  |  |
| information.dk | $\times$ |  |  |  |  |  |  |  |
| jyllands-posten.dk | $\times$ |  |  |  |  |  |  |  |
| kristeligt-dagblad.dk | $\times$ |  |  |  |  |  |  |  |
| mx.dk | $\times$ |  |  |  |  |  |  |  |
| politiken.dk | $\times$ |  |  |  |  |  |  |  |
| seoghoer.dk | $\times$ |  |  |  |  |  |  |  |
| sondagsavisen.dk | $\times$ |  |  |  |  |  |  |  |
| tv2.dk | $\times$ |  |  |  |  |  |  |  |
| weekendavisen.dk | $\times$ |  |  |  |  |  |  |  |

I did only visit other websites in the past week
I did not visit any websites at all the past week

TABLE A: Specification of variables

Current affairs knowledge

Newspaper
(List-frequency technique)

Newspaper
(List technique)

## Radio

(List-frequency technique)

Radio
(List technique)

## Television

(List-frequency technique)

Measure $($ Mean $=1.90, \mathrm{SD}=1.24, \operatorname{Min} .=0, \operatorname{Max} .=4)$ reflecting the number of correct answers to the following four question about foreign and national current affairs: Q1: Which post has Margrethe Vestager been appointed to in the European Commission? Answer options: 1) Commissioner for Competition (correct answer); 2) Commissioner for Trade; 3) Commissioner for Health; 4) Commissioner for Climate. Q2: In what country is there currently war against IS (Islamic State)? Answer options: 1) Turkey; 2) Afghanistan; 3) Iraq (correct answer); 4) Iran. Q3: Who is the Conservative People's Party's spokesperson on politics? Answer options: 1) Søren Pape Poulsen; 2) Lene Espersen; 3) Brian Mikkelsen; 4) Mai Mercado (correct answer). Q4: Who is Minister of Employment in Denmark? Answer options: 1) Henrik Dam Kristensen (correct answer); 2) Mette Frederiksen; 3) Pia Olsen Dyhr; 4) Bjarne Corydon.

Index (Mean $=0.86, \mathrm{SD}=1.31, \operatorname{Min} .=0, \mathrm{Max} .=7)$ reflecting the number of days in the past week the respondents were exposed to the printed version (on paper or electronic) of the broadsheet newspapers Berlingske, Jyllands-Posten, or Politiken.
Dummy variable (Mean $=.45, \mathrm{SD}=.50)$ reflecting whether the respondents have been exposed to one or several versions of the printed version (on paper or electronic) of the broadsheet newspapers Berlingske, Jyllands-Posten, or Politiken during the past week.
Index (Mean $=1.00, \mathrm{SD}=1.16$, Min. $=0$, Max. $=7$ ) reflecting the number of days in the past week the respondents were exposed to the radio channels P1, P2, P4, or Radio 24/7.
Dummy variable (Mean $=.60, \mathrm{SD}=.49$ ) reflecting whether the respondents have been exposed to one or several radio channels (P1, P2, P4, or Radio 24/7) during the past week.
Index $($ Mean $=1.55, \mathrm{SD}=1.23, \operatorname{Min} .=0, \operatorname{Max} .=7)$ reflecting the number of days in the past week the respondents were exposed to TV-Avisen (DR1), Nyhederne (TV2), DR2 Morgen, DR2 Dagen, Deadline (DR2), or TV 2 News.

TABLE A: Specification of variables (continued)

| Television <br> (List technique) | Dummy variable (Mean $=.85, \mathrm{SD}=.36$ ) reflecting whether the respondents have been exposed to one or several television programs (TVAvisen (DR1), Nyhederne (TV2), DR2 Morgen, DR2 Dagen, Deadline (DR2), or TV 2 News) during the past week. |
| :---: | :---: |
| Webpages <br> (List-frequency technique) | Index (Mean $=0.91, \mathrm{SD}=1.49$, Min. $=0$, Max. $=7$ ) reflecting the number of days in the past week the respondents were exposed to the websites berlingske.dk, jyllands-posten.dk, politiken.dk, dr.dk, or tv2.dk |
| Webpages <br> (List technique) | Dummy variable (Mean $=.66, \mathrm{SD}=.48$ ) reflecting whether the respondents have been exposed to one or several websites (berlingske.dk, jyllands-posten.dk, politiken.dk, dr.dk, or tv2.dk) during the past week. |
| Gender | $0=$ male (49.17\%), $1=$ female (50.83\%) |
| Age | Age in years ( Mean $=50.11, \mathrm{SD}=15.41$, Min. $=18$, Max. $=86$ ) |
| Education | Measure $($ Mean $=4.28, \mathrm{SD}=1.89$, Min. $=0$, Max. $=7$ ) based on respondents' answers to the following question: What is your highest completed education? Categories: 0) None; 1) Primary school; 2) Vocational education; 3) High school; 4) Short higher education; 5) Medium higher education; 6) Bachelor; 7) Long higher education. |
| Political interest | Measure $($ Mean $=6.48, \mathrm{SD}=2.54$, Min. $=0$, Max. $=10$ ) based on respondents' answers to the following question: Generally speaking, how interested are you in politics? With answer options from 0 (Not interested at all) to 10 (Very interested). |

TABLE B: Comparing the list technique and the list-frequency technique (Pct.)

| Newspaper |  |  | Radio |  |  | Television |  |  | Internet |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Source | List | Listfreq. | Source | List | Listfreq. | Source | List | Listfreq. | Source | List | Listfreq. |
| Berlingske | 21.3 | 17.7 | DR P1 | 30.7 | 30.5 | TV-Avisen (DR1) | 74.7 | 80.1 | berlingske.dk | 22.0 | 21.3 |
| BT | 24.0 | 21.3 | DR P2 | 12.7 | 11.3 | Nyhederne (TV2) | 66.7 | 69.5 | billedbladet.dk | 2.7 | 4.3 |
| Ekstra Bladet | 26.0 | 18.4 | DR P3 | 31.3 | 22.0\# | Regionale nyheder (TV2) | 54.7 | 56.0 | bt.dk | 31.3 | 31.9 |
| Information | 9.3 | 11.3 | DR P4 | 51.8 | 44.0 | Deadline (DR2) | 32.7 | 35.5 | dagens.dk | 2.7 | 3.5 |
| Jyllands Posten | 22.0 | 20.6 | Radio 24/7 | 12.0 | 13.5 | TV2 News | 41.3 | 44.0 | dr.dk | 42.0 | 40.4 |
| Kristeligt Dagblad | 8.7 | 7.1 | NOVA fm | 9.9 | 14.0 | DR2 Morgen (DR2) | 9.9 | 12.0 | ekstrabladet.dk | 32.7 | 31.2 |
| MetroXpress | 31.2 | 22.0\# | The Voice | 7.3 | 2.1* | DR2 Dagen (DR2) | 9.3 | 16.3\# | information.dk | 6.0 | 10.6 |
| Politiken | 29.3 | 29.8 | Local radio station | 13.5 | 16.0 | Penge (DR1) | 34.7 | 38.3 | jyllands-posten.dk | 21.3 | 29.8\# |
| Søndagsavisen | 16.0 | 25.5* |  |  |  | Horisont (DR1) | 21.3 | 27.7 | kristeligt-dagblad.dk | 4.0 | 11.3* |
| Weekendavisen | 8.7 | 9.2 |  |  |  | Bag Borgen (DR1) | 15.3 | 13.5 | mx.dk | 2.0 | 6.4\# |
| Regional newspaper | 14.7 | 17.7 |  |  |  | Debatten (DR2) | 25.3 | 22.0 | politiken.dk | 28.7 | 28.4 |
| Local newspaper | 50.7 | 62.4* |  |  |  | Aftenshowet (DR1) | 28.0 | 40.4* | seoghoer.dk | 4.0 | 3.5 |
|  |  |  |  |  |  | Go' morgen Danmark (TV2) | 20.7 | 32.6* | sondagsavisen.dk | 1.3 | 1.4 |
|  |  |  |  |  |  | Go' aften Danmark (TV2) | 26.0 | 30.5 | tv2.dk | 27.3 | 26.2 |
|  |  |  |  |  |  | Monte Carlo (DR3) | 4.7 | 4.3 | weekendavisen.dk | 1.3 | 2.1 |
|  |  |  |  |  |  | Robinson ekspeditionen (TV3) | 5.3 | 7.1 |  |  |  |
|  |  |  |  |  |  | Vild med dans (TV2) | 23.3 | 36.2* |  |  |  |
|  |  |  |  |  |  | Kender du typen? (DR1) | 24.0 | 29.1 |  |  |  |
| Only other newspapers | 1.3 | 0.0 | Only other radio | 3.3 | 2.1 | Only other TV programs | 2.7 | 1.4 | Only other webpages | 9.3 | 4.3\# |
| No newspapers at all | 10.7 | 6.4 | No radio at all | 8.7 | 4.3 | No TV programs at all | 6.0 | 2.1\# | No webpages at all | 23.3 | 2.1*** |
| Avg. score | 19.4 | 19.2 | Avg. score | 18.1 | 16.0 | Avg. score | 26.8 | 29.9 | Avg. score | 15.4 | 15.2 |

[^2]Note: Table shows per cents of respondents reporting using a specific media source in the two conditions.
TABLE C: The effect of political media use on current affairs knowledge - specific models

|  |  | List technique (Model 2-6) |  |  |  |  | List-frequency technique (Model 7 -11) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 | Model 10 | Model 11 |
| Political media use |  |  |  |  |  |  |  |  |  |  |  |
| Newspapers |  | $\begin{gathered} .195^{* * *} \\ (.033) \end{gathered}$ |  |  |  | $\begin{gathered} .124^{* * *} \\ (.034) \end{gathered}$ | $\begin{gathered} .098^{* * *} \\ (.013) \end{gathered}$ |  |  |  | $\begin{aligned} & .033^{*} \\ & .014) \end{aligned}$ |
| Radio |  |  | $\begin{gathered} .192^{* * *} \\ (.034) \end{gathered}$ |  |  | $\begin{gathered} .143^{* * *} \\ (.034) \end{gathered}$ |  | $\begin{gathered} .064^{* * *} \\ (.015) \end{gathered}$ |  |  | $\begin{aligned} & .032^{*} \\ & (.015) \end{aligned}$ |
| Television |  |  |  | $\begin{gathered} .305 * * * \\ (.045) \end{gathered}$ |  | $\begin{gathered} .267^{* * *} \\ (.045) \end{gathered}$ |  |  | $\begin{gathered} .118^{* * *} \\ (.014) \end{gathered}$ |  | $\begin{gathered} .096^{* * *} \\ (.014) \end{gathered}$ |
| Webpages |  |  |  |  | $\begin{gathered} .265^{* * *} \\ (.034) \end{gathered}$ | $\begin{gathered} .204^{* * *} \\ (.035) \end{gathered}$ |  |  |  | $\begin{gathered} .152^{* * *} \\ (.012) \end{gathered}$ | $\begin{gathered} .126^{* * *} \\ (.007) \end{gathered}$ |
| Controls |  |  |  |  |  |  |  |  |  |  |  |
| Gender | $\begin{gathered} -.490^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.485^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.481^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.496^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.475 * * * \\ (.031) \end{gathered}$ | $\begin{gathered} -.474^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.472^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.485^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.494 * * * \\ (.031) \end{gathered}$ | $\begin{gathered} -.453^{* * *} \\ (.031) \end{gathered}$ | $\begin{gathered} -.455^{* * *} \\ (.031) \end{gathered}$ |
| Age | $\begin{gathered} .021^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .020^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .018^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .019^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .022^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .018^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .020^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .019^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .017^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .022^{* * *} \\ (.001) \end{gathered}$ | $\begin{gathered} .017^{* * *} \\ (.001) \end{gathered}$ |
| Education | $\begin{gathered} .085^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .076 * * * \\ (.008) \end{gathered}$ | $\begin{gathered} .083^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .087 * * * \\ (.008) \end{gathered}$ | $\begin{gathered} .076 * * * \\ (.008) \end{gathered}$ | $\begin{gathered} .071^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .073^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .083^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .088^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .069^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .068^{* * *} \\ (.008) \end{gathered}$ |
| Political interest | $\begin{gathered} .161^{* * *} \\ (.006) \end{gathered}$ | $\begin{gathered} .152^{* * *} \\ (.007) \end{gathered}$ | $\begin{gathered} .156^{* * *} \\ (.006) \end{gathered}$ | $\begin{gathered} .155^{* * *} \\ (.006) \end{gathered}$ | $\begin{gathered} .150^{* * *} \\ (.008) \end{gathered}$ | $\begin{gathered} .138^{* * *} \\ (.007) \end{gathered}$ | $\begin{gathered} .149^{* * *} \\ (.007) \end{gathered}$ | $\begin{gathered} .156^{* * *} \\ (.006) \end{gathered}$ | $\begin{gathered} .146^{* * *} \\ (.007) \end{gathered}$ | $\begin{gathered} .141^{* * *} \\ (.007) \end{gathered}$ | $\begin{gathered} .126^{* * *} \\ (.007) \end{gathered}$ |
| Constant | $\begin{gathered} -.286 * * * \\ (.071) \end{gathered}$ | $\begin{gathered} -.249 * * * \\ (.071) \end{gathered}$ | $\begin{gathered} -.255^{* * *} \\ (.071) \end{gathered}$ | $\begin{gathered} -.413^{* * *} \\ (.073) \end{gathered}$ | $\begin{gathered} -.414^{* * *} \\ (.072) \end{gathered}$ | $\begin{gathered} -.450^{* * *} \\ (.075) \end{gathered}$ | $\begin{gathered} -.203^{* *} \\ (.071) \end{gathered}$ | $\begin{gathered} -.214^{* *} \\ (.073) \end{gathered}$ | $\begin{aligned} & -.185^{*} \\ & (.072) \end{aligned}$ | $\begin{gathered} -.348^{* * *} \\ (.070) \end{gathered}$ | $\begin{gathered} -.192^{* *} \\ (.074) \end{gathered}$ |
| Adj. $\mathrm{R}^{2}$ | . 302 | . 308 | . 307 | . 309 | . 312 | . 322 | . 311 | . 311 | . 312 | . 325 | . 334 |

OLS regressions, unstandardized coefficients, standard errors in parentheses. ${ }^{* * *} \mathrm{p}<0.001 ;{ }^{* *} \mathrm{p}<0.01 ;{ }^{*} \mathrm{p}<0.05 . \mathrm{N}=4,564$

## CHAPTER 3

# PARTICIPARTION PATHWAYS? ${ }^{\dagger}$ <br> THE INDIRECT EFFECT OF DIFFERENT NEWS MEDIA TYPES ON POLITICAL PARTICIPATION TROUGH KNOWLEDGE AND EFFICACY OVER TIME 


#### Abstract

Today, citizens have the possibility to use many different types of news media and participate in various ways, both offline and online. We know that news media use affects participation, but how and through which underlying mechanism is still a puzzle. This study examines how use of different news media types (hard and soft TV news as well as printed and online versions of broadsheet and tabloid newspapers) indirectly affects changes in offline and online political participation through knowledge and internal efficacy. In order to do so, we use a four-wave panel survey with a large sample of the general population in Denmark ( $\mathrm{N}=2,680$ ). The results show that hard TV news and broadsheets affect changes in both offline and online political participation positively through knowledge and internal efficacy. However, these results are more pronounced for online political participation and in election time. In some cases, tabloid newspapers and soft TV news also have a positive effect on changes in political participation, but this effect is not mediated through knowledge and internal efficacy.


[^3]
### 3.1 Introduction

Political participation is one of the keys to a healthy democracy (Lazarsfeld et al., 1944). Knowledge and efficacy are important steps on the way to political participation. Ideally a citizen is able to form opinions based on a sufficient level of knowledge about political issues in order to act politically (Carpini \& Keeter, 1997). In addition, citizens need to view themselves as capable of acting upon their beliefs and consider the political systems responsive to their demands in order for participation to be meaningful (Finkel, 1985). The media play a central role in this relationship, since they are the primary source for citizens to get information and obtain knowledge about political issues (Strömbäck, 2005). Thus, the media can be expected to have an indirect effect on political participation through knowledge and efficacy. Prior research has shown how the media affect knowledge and efficacy (e.g., Dilliplane et al., 2012; Hansen \& Pedersen, 2014; Moeller \& de Vresse, 2013). The pressing questions are, whether use of different news media types yield different effects, and whether these effects can be translated into actual political participation.

Both media use and political participation have undergone fundamental changes during the last decades. With a growing commercialization and new online technological possibilities, the availability of media outlets has proliferated, and citizens now have the possibility to create their own personal media diets based on individual preferences (e.g., Prior, 2007). This development has led to a highly fragmented media environment with considerable variations in the amount and type of political information citizens are exposed to and thus the levels of knowledge, which they act upon (Prior, 2003; 2005). Likewise, political participation no longer only includes traditional activities, such as voting or attending public demonstrations (e.g., Zukin et al., 2006). Instead, political participation has broadened in scope and now takes place both offline and online, for example by engaging in different
political activities on social media sites (Gibson \& Cintijock, 2013). The democratic consequences of these developments in media use and political participation are not clear. From a pessimistic perspective, it has been argued that the polarization in news consumption between different types of outlets creates an information gap, which in turn leads to gaps in knowledge and participation (Prior, 2003; 2005). From a more optimistic perspective, other scholars have argued that tabloid newspapers or soft TV news programs, which entertain the audience while also providing them with political information, can inform people who would not otherwise have been so (Brants, 1998; Baum, 2002; 2003; Baum \& Jamison, 2006). Thus, media types, which at first sight do not look relevant, might have a substantial democratic potential (Williams \& Carpini, 2011). The same ambiguities might be at stake for political participation, where informal and more issue-orientated types of participation-especially online-are on the rise, while more formal types of participation are decreasing (Bennett, 1998). The decrease in formal types of participation has been seen as a treat undermining the foundation for a strong democracy (Putnam, 1995; 2000). Political participation online is especially interesting in this regard, since the Internet provides new avenues for participation requiring other resources than traditional offline activities (Best \& Krueger, 2005).

Even though the changes in media use and political participation have been acknowledged in the literature, they are rarely taken into account when examining the underlying mechanisms between the two concepts. Measures for media use are often very general and underspecified in terms of different types of newspapers (e.g. tabloid/broadsheet) and TV news (e.g. soft/hard) (Jung et al., 2011; Moeller et al., 2014), and likewise political participation measures are often too simplified by focusing on single acts of offline participation, such as voting or protesting (Corrigall-Brown \& Wilkes, 2014), or solely online
participation (Kenski \& Stroud, 2006). Further, some of these relevant studies have relied on convenient samples (Hoffman \& Young, 2011) or cross-sectional data (Jung et al., 2011).

Thus, this paper contributes to our knowledge about the recent developments in both the media environment and forms of political participation and the democratic implications of these developments, by examining how use of different news media types affects changes in offline and online political participation indirectly through knowledge and efficacy over time. In order to do so, the analysis relies on a Danish four-wave panel survey ( $\mathrm{N}=2,680$ ) conducted from November 2014 to June 2015 and including detailed measures of all relevant variables. The third and fourth survey waves were conducted in connection with the national election. On top of the normal benefits of longitudinal data for examining the dynamic process of media effect, this context provides us with a unique opportunity to investigate differences between non-election and election time.

The paper proceeds as follows. First we elaborate on the theoretical argument for an indirect news media effect and present our hypotheses for the study. Afterwards the data and statistical method is presented followed by the empirical results. Finally, the findings and their implications are discussed.

### 3.2 Theory

Both media use and political participation have changed during the last decades. In both cases, choices have never been more extensive: what should we read, see or listen to, and how should we act? In the following, we elaborate on the argument of an indirect effect from news media use to political participation through knowledge and efficacy in this changing environment, and outline our expectations for how different types of news media moderates this indirect effect.

### 3.2.1 Knowledge, efficacy, and political participation

In general, political knowledge, efficacy, and participation are, to a certain degree, dependent on media use. This dependency can either be positive or negative. The positive effects are known as the idea of a 'virtuous circle', where political information from the media helps "to improve our understanding of public affairs, to increase our capacity and motivation to become active in the political process, and thereby strengthen civic engagement" (Norris, 2000: 317). The reverse effects are known under the term 'media-malaise' (Newton, 1999; Robinson, 1976), where media use has a negative effect on political attitudes and participation (e.g. Capella \& Jamieson, 1997; Putnam, 2000). Independent of whether the media effects are positive or negative, there seems to be an underlying psychological argument of an indirect effect through knowledge and efficacy on political participation, as seen in Norris' description of the virtuous circle above. Likewise, this underlying psychological mechanism is present in the definition of efficacy, which is normally divided into internal and external efficacy. Internal efficacy is defined as "individuals' self-perceptions that they are capable of understanding politics and competent enough to participate in political acts such as voting", whereas external efficacy is defined as "the feeling that an individual and the public can have an impact on the political process because government institutions will respond to their needs" (Miller et al., 1979: 253). In other words, there seems to be no reason for citizens to participate in politics, if they do not find themselves competent and believe that their actions will have any consequences (Abramson \& Aldrich, 1982), while the media is expected to affect these attitudes, as they provide a foundation for citizens to reason on political issues (Iyengar, 1991). In empirical support for this idea, efficacy correlates positively with political knowledge (e.g. Bennett, 1997), and media use is known to be a strong predictor for both concepts (e.g. Dilliplane et al., 2012; Hansen \& Pedersen, 2014).

The remaining question in the literature is whether and how the relationships between media use, knowledge, and efficacy actually can be indirectly translated into political participation. If not, these relationships seem to have limited relevance. Even though the indirect scenario seems likely, since efficacy (e.g., Finkel, 1985) and knowledge (e.g., Carpini \& Keeter, 1997) are known to affect political participation, this indirect relationship has rarely been tested explicitly (Corrigall-Brown \& Wilkes, 2014; Jung et al., 2011; Kenski \& Stroud, 2006), and never, to the best of our knowledge, with a detailed differentiation between different news media types and a distinction between non-election and election time.

### 3.2.2 Mixing news and entertainment

In order to differentiate between different types of news media, primarily within newspapers and television news, scholars have used concepts such as infotainment (Brants \& Neijens, 1998), tabloidization (Esser, 1999), or hard and soft news (Reinemann et al., 2012). Even though these concepts have been widely used in the literature, there seems to be no consensus on how they should be defined (ibid.). The concepts overlap quite a bit and are often used as synonyms both theoretically and empirically. For example, a decrease in hard news and increase in soft news can be seen at part of defining the tabloidization concept (Esser, 1999). Despite these confusions, all the concepts are driven by the observation of blurring lines between news and entertainment. In this observation, there seems to be an underlying idea of a continuum ranging from core political information to pure entertainment. The more entertainment features a news item includes, the more soft or tabloid it is (Baum, 2003; Brants, 1998). However, such a degree of entertainment is hard to identify, and empirically all types of news include some elements of entertainment (Brants \& Neijens, 1998). Therefore, single characteristics are often pointed out as indicators for a specific news type. Focussing on
the dimensions of focus, topic, and style, Reinemann et al. (2012: 13) have the following definition of soft and hard news:
"The more a news item is politically relevant, the more it reports in a thematic way, focuses on the societal consequences of events, is impersonal and unemotional in style, the more it can be regarded as hard news. The more a news item is not politically relevant, the more it reports in an episodic way, focuses on individual consequences of events, is personal and emotional in style, the more it can be regarded as soft news."

Even though the concepts of hard and soft news can be equally applied to all media formats, they are most often used in relation to TV news. In regard to newspapers, the tabloidization concept is more often used for covering this development. Thus, this study distinguishes between soft and hard TV news as well as broadsheet and tabloid newspapers. Due to the growing use of the Internet, the newspapers will further be divided into printed and online versions of broadsheets and tabloids, as the different platforms may yield different results.

### 3.2.3 New avenues for political participation

Just like the media environment has changed, forms of political participation have changed as well. These changes has mainly pushed citizens' political engagement in two direction; towards less formal types of participation (Ekman \& Amnå, 2012) and towards online forms of participation (Hosch-Dayican, 2014). With the fall in traditional forms of political participation, these new forms of engagement has been highlighted as important (Bennett, 1998), since they can be done at a lower cost than traditional forms of participation (Best \& Kreuger, 2005) and are especially attractive for young people (Buckingham, 1997).

In this study we focus on formal types of political participation, including acts such as attending political discussions and contacting respectively politicians and the media to express ones political opinion. In order to take account of the changing participation forms, we distinguish between performing these acts in the traditional offline way or performing them online using the Internet. Focusing on these formal types of political participation provides us with a hard case for finding indirect media effect. However, this seems reasonable when investigating the potential indirect effect through knowledge and efficacy, since especially the latter mediator address citizens' belief in they own capabilities of actively participation.

### 3.2.4 Different effects for different types of news media?

The causal mechanism investigated in this study is illustrated in Figure 1. As mentioned, we differentiate between different news media types (hard/soft TV news as well as printed and online versions of broadsheet and tabloid newspapers) and examine how they indirectly affect offline and online political participation through knowledge and efficacy. For this purpose, we focus on current affairs knowledge and internal efficacy. Current affairs knowledge was chosen, since we investigate an on-going process, where new inputs are likely to influence the outcome. Internal efficacy was chosen, since the feeling of political confidence is more likely to be an outcome of media use than external efficacy (Jung et al., 2011), and since internal efficacy is more closely related to participation than external efficacy (Berry et al., 1993).

FIGURE 3.1: The indirect causal mechanism from news media use to political participation

| MEDIA TYPE <br> HARD/SOFT TV NEWS PRINTED BROADSHEETS/TABLOIDS ONLINE BROADSHEETS/TABLOIDS | $\longrightarrow$ | CURRENT AFFAIRS KNOWLEDGE |
| :---: | :---: | :---: |

How the different types of news media outlined above affects respectively knowledge, efficacy, and political participation is unclear. On the one hand, Prior (2005) argues that the polarization in news consumption creates an information gap between low informed and high informed citizens, which in turn leads to gaps in knowledge and participation. In line with this idea, Newton (1999) found a positive effect of broadsheet newspapers and TV news on knowledge and political mobilization, while general television use was associated with lower levels of knowledge and political mobilization. Similar, de Vreese and Boomgaarden (2006) have shown how news media with high levels of political content (such as broadsheet newspapers) affects knowledge and turn out positively, whereas news media with low levels of political content have no effect. Focusing more explicitly on the role of entertainment, Prior (2003) found a negative effect of preference for entertainment on knowledge. However, de Vreese and Boomgaarden (2006) did not find such an effect.

On the other hand, some scholars have contested that media diets based primarily on entertainment necessarily are problematic to democracy (Brants, 1998; Baum, 2002; 2003; Baum \& Jamison, 2006). These scholars argue that entertaining presentations of political information, such as tabloid newspapers and soft news, can lower the cost associated with paying attention. Thus, outlets, which at first sight do not look relevant, might have a substantial democratic potential (Williams \& Carpini, 2011). And indeed, research has shown that soft news can cause significant shifts in political attitudes (Jebril et al., 2013a; Boukes \& Boomgaarden, 2014), affect knowledge (Baum, 2002; 2003; Jebril et al., 2013b), and the ability to vote for a favourable candidate (Baum \& Jamison, 2006). One of the remaining questions in this line of research is, whether soft news also has the ability to change citizens' behaviour, e.g. their political participation, and under which circumstances. In one of the few
studies looking at this, Moy et al. (2005) found that watching late night comedy increased the intend to vote and discuss politics, but more for political sophisticates than for others.

Despite the scholarly disputes about positive or negative effects of using tabloid newspapers or soft TV news, it seem reasonable to expect that the effect differs between these more entertaining news media types and using broadsheets newspapers or hard TV news, which contain relative less entertainment in their news disseminations. Thus, our first hypotheses in regard to the direct media effect on current affairs knowledge are:

H1a: Hard TV news have a more positive effect on current affairs knowledge than soft TV news
H1b: Broadsheets have a more positive effect on current affairs knowledge than tabloids

As mentioned, knowledge is known to affect internal efficacy positively (Bennett, 1997). Therefore we can also expect that the indirect effects on internal efficacy through current affairs knowledge differs between the different media types according to the degree of entertainment. Thus, we have the following expectations for the relationship between news media use, current affairs knowledge, and internal efficacy:

H2a: The media effects on internal efficacy are mediated through current affairs knowledge
H2b: Hard TV news have a more positive indirect effect on internal efficacy than soft TV news
H 2 c : Broadsheets have a more positive indirect effect on internal efficacy than tabloids

Since both knowledge (Carpini \& Keeter, 1997) and internal efficacy (Finkel, 1985) are known to affect political participation positively, the expectations outlined above can be transferred to the last step in the causal chain as well. Thus, we have the following
expectation for the overall relationship between news media use, current affairs knowledge, internal efficacy, and political participation:

H3a: The media effects on changes in political participation are mediated through current affairs knowledge and internal efficacy

H3b: Hard TV news have a more positive indirect effect on changes in political participation than soft TV news

H3c: Broadsheets have a more positive indirect effect on changes in political participation than tabloids

The fact that our data collection took place in both non-election and election time, provide us with the unique opportunity of investigating variations in news media effects between these periods. This opportunity is very interesting when trying to untangle the dynamics of these media effects. Election campaigns can be seen as the highlight of democracy, including more intense media coverage of politics and thus more pronounced effects on knowledge and efficacy (Hansen \& Pedersen, 2014). Thus, we have the following expectation in regard to the changing context:

H4: News media in general have larger indirect effects on changes in political participation in election time than in non-election time

Finally, we examine how the indirect media effects vary between offline and online political participation. Even though the political activities that people can engage with online resembles those found offline (Gibson \& Cantijoch, 2013), the costs required for participation online are lower than for offline activities (Best \& Krueger, 2005; Jung et al., 2011). Thus, we expect that:

H5: News media in general have larger indirect effects on changes in online political participation than on changes in offline political participation

### 3.3 Method

In order to examine the indirect effects from use of different news media types on political participation, the study relies on a four-wave panel survey conducted in Denmark. As a corporative media system with a public service system, Denmark has a high level of news consumption (Curren et al., 2009; Hallin \& Mancini, 2004). Thus, Denmark can be seen as a most likely case for identifying media effects. This setup is useful when investigating the indirect effect of many different types of news media, which otherwise could be even harder to identify. The panel survey relies on a sample of the general Danish population above 18 years old. The first wave was conducted from November 21, 2014 to January 5, 2015 and the second wave four months later from April 10 to April 22, 2015. The third and forth waves were conducted in connection with the Danish national election in June 2015. The third wave was conducted during the election campaign, from May 27 to June 15, while the forth wave was conducted directly after Election Day, from June 19 to June 29, 2015. This provides us with the optimal setup for investigating differences in media effects between non-election and election time.

### 3.3.1 Sample

The survey was conducted through self-administrated web questionnaires managed by the research agency Epinion. The sample was drawn from a population representative database with a quota sample technique on gender and age. 10,315 people were invited via e-mail to participate in the first wave, of which 4,641 respondents completed (response rate: 45 pct.).

3,419 respondents completed two waves (attrition rate: 26.3 pct.), 2,951 respondents completed three waves (attrition rate: 13.7 pct.), and 2,680 respondents completed all four waves (attrition rate: 9 pct.). The panel attrition did not lead to a significant change in the sample's gender distribution. However, the attrition did lead to a small increase the average age and educational level. Even though this lower the representation of the sample, it is not to the biggest concern of our study, since it's main focus is on the causal mechanism and not on drawing a precise inference to the greater population. All further analyses in this study were done on the 2,680 respondents, who participated in all four waves.

### 3.3.2 Measures

The study's independent variables are use of different news media types including hard and soft television news as well as printed and online versions of broadsheet and tabloid newspapers in non-election and election time. Hard TV news includes two regular evening news shows (TV-Avisen on DR1 and Nyhederne on TV 2), three in-depth news programs (DR2 Morgen, DR2 Dagen, and Deadline on DR2), and one 24-hour news channel (TV2 News). Soft TV news includes one morning (Go' morgen Danmark on TV 2) and two evening shows (Aftenshowet on DR1 and Go' aften Danmark on TV 2) similar to American programs such as Good Morning America and Entertainment Tonight. Importantly, these programs are therefore not similar to comedy shows such as The Daily Show, which have a more satirical approach to politics (Holbert, 2005a). The measures for both printed and online newspapers include respectively three broadsheets (Berlingske, Jyllands-Posten, and Politiken) and two tabloids (BT and Ekstra Bladet). Slater (2004: 169) has argued that media measures should be as specified as possible in order to avoid underestimation of possible effects. Thus, the respondents' use of the specific sources was measured on a scale from 0 to 7 reflecting the
number of days in the last week where the respondents used these (as described and tested in Chapter 2). For each of the four waves the specific sources were combined in indexes reflecting the different news media types. These indexes were then averaged for respectively non-election and election time.

As mediating variables the study includes current affairs knowledge and internal efficacy. Current affairs knowledge was in each wave measured by the number of correct answers to four questions about on-going national and foreign politics, which is a good indicator for this concept (Price \& Zaller, 1993). In order to tap the 'current' dimension the questions varied between the four waves. All 16 knowledge questions can be seen in the appendix (p. 78). Like the media use variables, the measures for current affairs knowledge were averaged and re-scaled for respectively non-election time $($ Mean $=58.94, \mathrm{SD}=26.91$, Min. $=0$, Max. $=100)$ and election time $($ Mean $=77.19, S D=20.68$, Min. $=0, \operatorname{Max} .=100)$.

In line with prior research (e.g., Hansen \& Pedersen, 2014), internal efficacy was in all four waves measured by the respondents' answers to five items about their own political abilities: 1) "Sometimes politics is so complicated that a person like me cannot really understand what is going on"; 2) "Generally speaking, I do not find it difficult to take a stand on political issues" (reversed); 3) "When politicians debate economic policy, I only understand a small part of what they are talking about"; 4) "Citizens like me are qualified to participate in political discussions" (reversed); 5) Citizens like me have opinions on politics that are worth listening to" (reversed). The answers, ranging from "Totally agree" to "Totally disagree" on a 5-point Likert scale, was combined into a reflective indexes for each wave and averaged for respectively non-election time $($ Mean $=72.81, \mathrm{SD}=13.58, \mathrm{Min} .=28$, Max. $=$ $\left.100, \alpha_{W 1}=0.74, \alpha_{W 2}=0.74\right)$ and election time $($ Mean $=74.12, S D=14.19, \operatorname{Min} .=24$, Max. $=$ $\left.100, \alpha_{\mathrm{W} 3}=0.76, \alpha_{\mathrm{W} 4}=0.79\right)$.

The study's dependent variables are offline and online political participation in nonelection and election time. The measure for offline political participation in non-election time was measured by the respondents' answers to four items regarding this type of behaviour on a 5-point scale from "Not at all" to "Four time or more" during the last twelve month in the first wave and the last four month in the second wave. The time frame in the second wave corresponds to the time in between the two waves. The included items were: 1) Attended a public political discussion, debate or lecture; 2) Contacted or visited a politician in person; 3) Sent letters or written articles to newspapers, magazines or the like to comment on a political matter; 4) Called in to a radio or television program to express your opinion on a political issue, even if you did not get on the air. In order to secure a high comparability with the measure for offline political participation in election time, which only includes one item for media contact (see below), the last two items were combined into one. The three items were then combined to an additive index for the first wave $($ Mean $=8.31, \mathrm{SD}=17.04, \mathrm{Min} .=0$, Max. $=100, \alpha=.65)$ and second wave (Mean = 5.61, $\mathrm{SD}=14.82$, Min. $=0$, Max. $=100, \alpha=$ .73) respectively. The measure for offline political participation in election time was measured by the respondents' answers to three items regarding this type of behaviour. The included items were: 1) Attend(ed) public meetings, discussions, debates and lectures on the election; 2) Contact(ed) a politician personally to discuss the election; 3) Contact(ed) the media to express your opinion about the election (e.g. by calling or writing to radio, television or newspaper). In the third wave the respondents were asked how likely it was that they would do the activities during the election on a 11-point scale from "Not likely at all" to "Very likely". In the fourth wave the respondents were asked which of the activities they actually had done during the election campaign. The three items were again combined to an
additive index for the third wave $($ Mean $=21.69, \mathrm{SD}=18.18, \mathrm{Min} .=9.09, \mathrm{Max} .=100, \alpha=$ $.80)$ and forth wave $($ Mean $=4.17, \mathrm{SD}=14.47$, Min. $=0, \operatorname{Max} .=100, \alpha=.55)$ respectively.

Like offline political participation, the measure for online political participation in non-election time was measured by the respondents' answers to four items regarding this type of behaviour on a 5-point scale from "not at all" to "four time or more" during the last twelve month in the first wave and the last four month in the second wave. The included items were: 1) Initiated a political discussion or supported a political issue online, e.g. by creating a group or donating money to a political project or event; 2) Expressed your opinion in a post on Facebook or similar social media sites about a political or societal issue; 3) Contacted a politician via e-mail or social media to express your opinion; 4) Changed personal information or picture on your social media profile because of a political or societal issue. These four items were combined to an additive index for the first wave $($ Mean $=10.43, \mathrm{SD}=$ 18.69, Min. $=0$, Max. $=100, \alpha=.68)$ and second wave $($ Mean $=8.76, \mathrm{SD}=17.22, \operatorname{Min} .=0$, Max. $=100, \alpha=.69)$ respectively. The measure for online political participation in election time was also measured by the respondents' answers to four items regarding this type of behaviour. The included items were: 1) On social media or elsewhere on the internet take(n) the initiative to discuss the election (e.g., by creating a group); 2) Express(ed) your support for a party or candidate on Facebook or other social media (e.g., by writing or comment on posts or change profile information); 3) Via e-mail or social media contact(ed) a politician to express your opinion about elections; 4) Change(d) your personal information or picture on Facebook or other social media due to the election. In the third wave the respondents were asked how likely it was that they would do these activities during the election on an 11-point scale from "Not likely at all" to "Very likely". In the fourth wave the respondents were asked which of the activities they actually had done during the election campaign. The three items
were again combined to an additive index for the third wave $($ Mean $=17.25, \mathrm{SD}=17.93$, Min. $=0$, Max. $=100, \alpha=.79)$ and forth wave $($ Mean $=6.61, S D=17.13$, Min. $=0$, Max. $=$ $100, \alpha=.64$ ) respectively.

In addition to the variables described above, the study includes controls for gender (50.30 pct. females), age $($ Mean $=52.84, S D=14.77$, Min. $=19$, Max. $=86)$, and education (High school or less $=13.43$ pct., Vocational $=21.38$ pct., Short term $=9.44$ pct., Medium term $=35.60$ pct., Long term $=18.99$ pct.). All variables except current affairs knowledge were pre-tested on a sample of 200 respondents. The pre-test showed good distributions for all variables, and these were therefore kept in the original form.

### 3.3.3 Analyses

To test for differences between non-election and election time, the analysis was divided between these two time frames. The first two waves were used for testing the media effects in non-election time and the last two waves were used to test media effects in election time. In order to test how use of different news media types directly affect knowledge we apply standard OLS regression models. In order to test the mediation through knowledge and efficacy, the size and significance level of the indirect effects were calculated using the bootstrap test (Preacher \& Hayes, 2004) as recommended by Zhao et al. (2010). Based on three regression models for each news media type (IV $\rightarrow$ DV, IV $\rightarrow \mathrm{M}$, and $\mathrm{M} \rightarrow \mathrm{DV}$ ), this method provides us with respectively the indirect, direct and total effect on changes in political participation. A lagged dependent variable was applied for the analyses looking at changes in political participation (Markus, 1979). This approach provides us with a more valid and conservative estimate of the causal relationships.

### 3.4. Results

In this section the result from the different analyses will be presented. First, we look at the direct media effects on current affairs knowledge. Second, we look at the indirect media effects on internal efficacy through current affairs knowledge. And finally, we look at the indirect media effects on offline and online political participation.

TABLE 3.1: Effects on current affairs knowledge (0-100)

|  | Non-election |  | Election |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Without news media | With news media | Without news media | With news media |
| Television |  |  |  |  |
| Hard news |  | $\begin{gathered} 5.760 * * * \\ (.448) \end{gathered}$ |  | $\begin{gathered} 4.243 * * * \\ (.362) \end{gathered}$ |
| Soft news |  | $\begin{gathered} -2.112 * * * \\ (.428) \end{gathered}$ |  | $\begin{gathered} -.928^{* *} \\ (.372) \end{gathered}$ |
| Printed newspapers |  |  |  |  |
| Broadsheets |  | $\begin{gathered} 2.287 * * * \\ (.492) \end{gathered}$ |  | $\begin{gathered} 1.027 * * \\ (.410) \end{gathered}$ |
| Tabloids |  | $\begin{gathered} -1.419 * * * \\ (.383) \end{gathered}$ |  | $\begin{gathered} -1.239 * * * \\ (.336) \end{gathered}$ |
| Online newspapers |  |  |  |  |
| Broadsheets |  | $\begin{gathered} 2.153 * * * \\ (.445) \end{gathered}$ |  | $\begin{gathered} 1.730^{* * *} \\ (.352) \end{gathered}$ |
| Tabloids |  | $\begin{gathered} 1.267 * * * \\ (.321) \end{gathered}$ |  | $\begin{gathered} .824 * * * \\ (.262) \end{gathered}$ |
| Female | $\begin{gathered} -15.374^{* * *} \\ (.928) \end{gathered}$ | $\begin{gathered} -12.359 * * * \\ (.893) \end{gathered}$ | $\begin{gathered} -9.127 * * * \\ (.772) \end{gathered}$ | $\begin{gathered} -7.489 * * * \\ (753) \end{gathered}$ |
| Age | $\begin{gathered} .525^{* * *} \\ (.032) \end{gathered}$ | $\begin{gathered} .347 * * * \\ (.035) \end{gathered}$ | $\begin{gathered} .092 * * * \\ (.027) \end{gathered}$ | $\begin{gathered} -.035 \\ (.029) \end{gathered}$ |
| Education |  |  |  |  |
| Vocational | $\begin{gathered} -2.589 \\ (1.594) \end{gathered}$ | $\begin{aligned} & -1.758 \\ & (1.497) \end{aligned}$ | $\begin{aligned} & -2.228^{*} \\ & (1.326) \end{aligned}$ | $\begin{gathered} -1.217 \\ (1.269) \end{gathered}$ |
| Short term | $\begin{aligned} & -1.606 \\ & (1.940) \end{aligned}$ | $\begin{aligned} & -1.394 \\ & (1.818) \end{aligned}$ | $\begin{gathered} .950 \\ (1.614) \end{gathered}$ | $\begin{gathered} 1.376 \\ (1.539) \end{gathered}$ |
| Medium term | $\begin{gathered} 7.329 * * * \\ (1.460) \end{gathered}$ | $\begin{gathered} 4.657 * * * \\ (1.376) \end{gathered}$ | $\begin{gathered} 5.126^{* * *} \\ (1.215) \end{gathered}$ | $\begin{gathered} 3.657 * * * \\ (1.163) \end{gathered}$ |
| Long term | $\begin{gathered} 14.801^{* * *} \\ (1.611) \end{gathered}$ | $\begin{gathered} 10.036^{* * *} \\ (1.552) \end{gathered}$ | $\begin{gathered} 8.545 * * * \\ (1.340) \end{gathered}$ | $\begin{gathered} 5.736^{* * *} \\ (1.313) \end{gathered}$ |
| Constant | $\begin{gathered} 34.216^{* * *} \\ (1.953) \end{gathered}$ | $\begin{gathered} 31.547 * * * \\ (1.915) \end{gathered}$ | $\begin{gathered} 73.836^{* * *} \\ (1.625) \end{gathered}$ | $\begin{gathered} 71.516^{* * *} \\ (1.612) \end{gathered}$ |
| $\begin{aligned} & \text { Adj R }{ }^{2} \\ & \mathrm{R}^{2} \\ & \hline \end{aligned}$ | $\begin{aligned} & .220 \\ & .222 \end{aligned}$ | $\begin{aligned} & .318 \\ & .321 \end{aligned}$ | $\begin{aligned} & .085 \\ & .087 \end{aligned}$ | $\begin{aligned} & .171 \\ & .175 \\ & \hline \end{aligned}$ |

Unstandardized OLS regressions, standard error in parentheses.
$\mathrm{N}=2,680, *<0.1 ; * *<0.5 ; * * *<0.01$.

Table 1 presents the result for the direct media effects on current affairs knowledge in nonelection and election time. The results support our first hypotheses (H1a $+\mathrm{H} 1 \mathrm{~b})$, since hard

TV news and broadsheet newspapers have a more positive effect on knowledge than soft TV news and tabloids. Actually, soft TV news and printed tabloids have a negative effect on knowledge, while online tabloids have a positive, but smaller, effect on knowledge. The same results are found for both non-election and election time.

Table 2 presents the result for the indirect media effects on internal efficacy through current affairs knowledge, as illustrated in Figure 2. Hard TV news and broadsheets have a more positive indirect effect on internal efficacy than soft TV news and tabloids. Again we found a negative effect of soft TV news and printed tabloids, while online tabloid have a positive, but again smaller, indirect effect on internal efficacy. Thus, our second hypotheses $(H 2 a+H 2 b+H 2 c)$ are all supported as well. Importantly, we also in general find a direct effect of the different types of news media on internal efficacy. Thus, the media also affect efficacy through other mechanisms than current affairs knowledge.

FIGURE 3.2: Indirect media effects on internal efficacy


Note: Indirect effect $=a \times b$, direct effect $=c^{\prime}$, total effect $=c$.

TABLE 3.2: Effects on internal efficacy (0-100)

|  | Non-election |  |  | Election |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Indirect $a \times b$ | Direct $c^{\prime}$ | Total <br> c | $\begin{gathered} \text { Indirect } \\ a \times b \end{gathered}$ | Direct $c^{\prime}$ | Total c |
| Television |  |  |  |  |  |  |
| Hard news | $\underset{(.083)}{.719 * * *}$ | $\begin{gathered} 1.675 * * * \\ (.247) \end{gathered}$ | $\begin{gathered} 2.394 * * * \\ (.246) \end{gathered}$ | $\underset{(.077)}{.639^{* * *}}$ | $\begin{gathered} 1.692 * * * \\ (.244) \end{gathered}$ | $\underset{(.244)}{2.331 * * *}$ |
| Soft news | $\begin{gathered} -.264 * * \\ (.059) \end{gathered}$ | $\begin{gathered} -1.181 * * * \\ (.230) \end{gathered}$ | $\begin{gathered} -1.444^{* * *} \\ (.235) \end{gathered}$ | $\begin{gathered} -.140^{* *} \\ (.060) \end{gathered}$ | $\underset{(.245)}{-1.239^{* * *}}$ | $\underset{(.251)}{-1.379 * * *}$ |
| Printed newspapers |  |  |  |  |  |  |
| Broadsheets | $\underset{(.063)}{.285 * * *}$ | $\begin{aligned} & .449^{*} \\ & (.264) \end{aligned}$ | $\begin{gathered} .734 * * * \\ (.270) \end{gathered}$ | $\begin{aligned} & .155 * * \\ & (.055) \end{aligned}$ | $\begin{aligned} & .584^{* *} \\ & (.270) \end{aligned}$ | $\underset{(.277)}{.739^{* * *}}$ |
| Tabloids | $\begin{gathered} -.177 * * * \\ (.048) \end{gathered}$ | $\begin{aligned} & -.241 \\ & (.206) \end{aligned}$ | $\begin{gathered} -.418^{* *} \\ (.210) \end{gathered}$ | $\begin{gathered} -.187 * * * \\ (.001) \end{gathered}$ | $\begin{aligned} & .061 \\ & (.221) \end{aligned}$ | $\begin{aligned} & -.126 \\ & (.226) \end{aligned}$ |
| Online newspapers |  |  |  |  |  |  |
| Broadsheets | $\begin{aligned} & .269^{* *} \\ & (.054) \end{aligned}$ | $\underset{(.239)}{.981 * * *}$ | $\begin{gathered} 1.250 * * * \\ (.245) \end{gathered}$ | $\begin{aligned} & .261 * * \\ & (.051) \end{aligned}$ | $\begin{gathered} 1.041 * * \\ (.232) \end{gathered}$ | $\begin{gathered} 1.302 * * * \\ (.237) \end{gathered}$ |
| Tabloids | $\begin{gathered} .158^{* * *} \\ (.040) \\ \hline \end{gathered}$ | $\begin{aligned} & -.297^{*} \\ & (.172) \\ & \hline \end{aligned}$ | $\begin{array}{r} -.139 \\ (.176) \\ \hline \end{array}$ | $\begin{aligned} & .124 * * \\ & (.038) \\ & \hline \end{aligned}$ | $\begin{gathered} -.471^{* *} \\ (.172) \\ \hline \end{gathered}$ | $\begin{array}{r} -.347 \\ (.177) \\ \hline \end{array}$ |

Mediation test with bootstrap ( 5000 resamples), unstandardized regression coefficients, standard error in parentheses. Controlling for gender, age, education, current affairs knowledge, and use of other media types.
$*<0.1 ; * *<0.5 ;^{* * *}<0.01 . \mathrm{N}=2,680$.

We now turn to the indirect effects on changes in political participation through current affairs knowledge and internal efficacy. To examine these effects, we estimated the indirect effect through internal efficacy, while controlling for current affairs knowledge, as illustrated in Figure 3.

FIGURE 3.3: Indirect media effects on political participation


Note: Indirect effect $=a \times b$, direct effect $=c$ ', total effect $=c$.

Table 3 presents the results for offline political participation. Surprisingly, we find no indirect effect in non-election time. Thus, the effect found on knowledge and efficacy does not translate into changes in offline political participation in this period. However, in election time, we find a positive indirect effect for hard TV news and online broadsheets, while we find a negative indirect effect for soft TV news and online tabloids. We find no indirect effect for printed newspapers. Very interestingly, we find a positive direct effect of soft TV news and online tabloids, indicating that these news media do in fact affect changes in offline political participation positively, but not through current affairs knowledge and internal efficacy.

TABLE 3.3: Effects on changes in offline political participation (0-100)

|  | Non-election |  |  | Election |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Indirect $a \times b$ | Direct $c^{\prime}$ | Total c | Indirect $a \times b$ | Direct $c^{\prime}$ | Total <br> c |
| Television |  |  |  |  |  |  |
| Hard news | . 033 | . 128 | . 161 | .049* | -. 029 | . 020 |
|  | (.026) | (.239) | (.238) | (.024) | (.243) | (.242) |
| Soft news | -. 026 | -. 004 | -. 030 | -.048* | .441* | . 393 |
|  | (.021) | (.222) | (.221) | (.023) | (.240) | (.239) |
| Printed newspapers |  |  |  |  |  |  |
| Broadsheets | . 009 | . 240 | . 249 | . 019 | .440* | .459* |
|  | (.010) | (.253) | (.253) | (.014) | (.264) | (.264) |
| Tabloids | -. 005 | -. 086 | -. 091 | . 003 | -. 309 | -. 306 |
|  | (.007) | (.197) | (.197) | (.009) | (.216) | (.216) |
| Online newspapers |  |  |  |  |  |  |
| Broadsheets | . 021 | .469** | .490** | .031* | . 274 | . 306 |
|  | (.017) | (.230) | (.230) | (.017) | (.229) | (.228) |
| Tabloids | -. 007 | . 150 | . 143 | -.016** | .434** | .417** |
|  | (.00) | (.165) | (.165) | (.010) | (.417) | (.169) |

Mediation test with bootstrap ( 5000 resamples), unstandardized regression coefficients, standard error in parentheses. Controlling for initial offline political participation, gender, age, education, current affairs knowledge, and use of other media types.
$*<0.1 ; * *<0.5 ; * * *<0.01 . \mathrm{N}=2,680$.

Table 4 presents the results for online political participation. Here we find indirect effects in both non-election and election time. In non-election time, hard TV news and broadsheet newspapers, both printed and offline, have a positive indirect effect on changes in participation, while soft TV news have a negative effect. Tabloid newspapers, both printed and online, have no indirect effect. In election time, we also find a positive indirect effect for
hard TV news and broadsheet newspapers, both printed and offline, while soft TV news and online tabloids have a negative indirect effect. Printed tabloids have no indirect effect in election time. Again very interestingly, we find a positive direct effect for soft news and online tabloids, indicating that these news media types in some settings affect changes in political participation positively, but through other mechanisms than knowledge and efficacy. Taken together, the results for offline and online political participation partly support our third hypotheses $(\mathrm{H} 3 \mathrm{a}+\mathrm{H} 3 \mathrm{~b}+\mathrm{H} 3 \mathrm{c})$. The media effects on changes in political participation are mediated through knowledge and efficacy, but only for some news media types and in some settings. In general, the indirect effects are more positive for hard TV news and broadsheets than for soft TV news and tabloids. When the two latter have a significant indirect effect, it is actually negative, in line with the previously results for current affairs knowledge and internal efficacy.

TABLE 3.4: Effects on changes in online political participation (0-100)

|  | Non-election |  |  | Election |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Indirect $\mathrm{a} \times \mathrm{b}$ | $\begin{aligned} & \text { Direct } \\ & c^{\prime} \end{aligned}$ | Total c | Indirect $\mathrm{axb}$ | $\begin{gathered} \text { Direct } \\ c^{\prime} \end{gathered}$ | Total C |
| Television |  |  |  |  |  |  |
| Hard news | .154*** | -. 253 | -. 098 | . $147^{* * *}$ | .610** | .757*** |
|  | (.038) | (.248) | (.247) | (.040) | (.259) | (.258) |
| Soft news | -.123*** | . $656 * * *$ | .533** | -.131*** | . 141 | . 010 |
|  | (.033) | (.230) | (.230) | (.037) | (.258) | (.258) |
| Printed newspapers |  |  |  |  |  |  |
| Broadsheets | .062** | .445* | .507* | .059** | . 087 | . 145 |
|  | (.029) | (.263) | (.264) | (.030) | (.284) | (.285) |
| Tabloids | -. 030 | -. 132 | -. 161 | . 008 | -. 360 | -. 352 |
|  | (.022) | (.205) | (.206) | (.022) | (.232) | (.233) |
| Online newspapers |  |  |  |  |  |  |
| Broadsheets | .060** | . 079 | . 138 | .081*** | .447* | .528** |
|  | (.027) | (.241) | (.242) | (.029) | (.246) | (.246) |
| Tabloids | -. 028 | .495*** | .467*** | -.048** | . 285 | . 237 |
|  | (.018) | (.172) | (.172) | (.019) | (.181) | (.182) |

Mediation test with bootstrap ( 5000 resamples), unstandardized regression coefficients, standard error in parentheses. Controlling for initial
online political participation, gender, age, education, current affairs knowledge, and use of other media types.
$*<0.1 ; * *<0.5 ; * * *<0.01 . \mathrm{N}=2,680$.

The results also support our fourth hypothesis (H4), predicting that news media in general have a larger indirect effect on changes in political participation in election time than in non-
election time. Even though we find indirect effects on changes in online political participation both in non-election and election time, the indirect effect were more pronounced for the latter period. The fact that we find indirect effect on online political participation for both nonelection and election time, while only in election time for offline political participation, also supports our last hypothesis (H5), which predicted that news media in general have a more positive indirect effect on online political participation than on offline political participation.

### 3.5. Discussion

This study is to our best knowledge the first taking a proper account of the changes in both the media environment and forms of political participation in the examination of the underlying mechanisms between these two concepts. Our analysis have shown how hard TV news and broadsheet newspapers, both printed and online have a positive direct effect on current affairs knowledge, which is further translated into an indirect positive effect on internal efficacy. The opposite is the case for soft TV news and printed tabloids. Interestingly, online tabloids have a positive effect on current affairs knowledge, and is further indirectly affecting internal efficacy positively. This latter result may reflect that online tabloids are some of the most visited news websites in Denmark (www.fdim.dk). However, when it comes to the indirect effects on changes in political participation through knowledge and efficacy, these are either negative or non-significant for both online and printed tabloids as well as soft TV news. Contrasting these patterns, hard TV news and broadsheet newspapers have positive indirect effect on changes in political participation. The results do however vary dependent on context and participation form. In general, the results are more pronounced in election time and for online political participation. These patterns supports the ideas that election time constitutes a principal avenue for citizens engagement in politics, and that online participation
can be done at a lower cost than offline participation. This is especially interesting, since recent research have shown how online political participation has a spill-over effect on offline participation (Cantijoch et al., 2015). Thus, involving in online types of participation is an important step on the way to participating offline as well.

On of the main questions in the literature has been whether an entertaining dissemination of political information has any democratic potential (Williams \& Carpini, 2011). Our results point in both a negative and positive direction. Even though soft TV news and tabloids did not have a positive indirect effect through knowledge and efficacy, they did have a positive direct effect in some specific instances. These results indicate that use of these news media types might influence changes in political participation positively through other mechanisms. Since these types of news sources often apply an episodic framing of political information, with a focus on individual consequences (Reinemann et al., 2012), these mechanisms might be more of an emotional character, such as empathy. Further, the negative results for soft TV news and printed tabloids should not be taken as evidence for a claim that people get more stupid or do not participate at all as a consequence of using these news sources. Our operationalization of both knowledge and political participation has a high threshold. Thus, entertaining news sources might have a positive effect on other types of political knowledge (as shown by Baum, 2002; 2003) and more low-cost political activities.

The findings presented in this study also have their limitations. First and foremost, they rely on what can be labelled an "empty exposure study" (Schuck et al., fourthcoming), since we only take account of the specific newspapers and TV programs, which people have been exposed to, and not the actual content of these outlets. Therefore, we cannot examine whether specific elements of soft TV news and tabloid newspapers actually do have a mobilizing potential. For example, Jebril et al. (2013a) found that privatisation and
personalisation in infotainment can have opposite effects on political cynicism. Thus, future research should continue to look into whether specific elements of these news types can have a positive effect. Further, this study has not looked at the possible indirect effects, which can stem from relationships that exist among different forms of media use, whereby different media types can have a cumulative and complementary function (Holbert, 2005b). This possibility is supported by Wonneberger et al. (2013), who have shown how soft news is used in a supplementing way and not as substitutes for hard news. Thus, it would be relevant to study the consequences of combinations of different media types. Finally, this study has not looked at any moderating effects. For example, Moy et al. (2005) found that watching late night comedy increased the intention to vote and discuss politics-but more for political sophisticates than for others. Pointing in the other direction, Jebril at al. (2013b) found, that political interest moderates the effect of human-interest framing on knowledge, having the largest effect on the least interested. Thus, it could be relevant to include these potential moderating relationships in future analysis, for example if the effect of different news types is moderated by age.

Despite the limitations mentioned above, this study has given an important insight to the underlying mechanisms between use of different media types and changes in political participation. This has been done in a comprehensive matter using a four-wave panel survey with detailed measures of both media use and political participation, supporting the strength of our results. The results have shown how current affairs knowledge and internal efficacy are important mediators between use of broadsheet newspapers and hard TV news and changes in political participation. This relationship is especially pronounced for online political participation and in election time. These factors show the importance of including new types
of political participation when investigating media effect as well as taking account of the context where these effects take place.

## Appendix

TABLE D: Current affairs knowledge questions in the four survey waves

In the first wave the questions were: 1) Which post has Margrethe Vestager been appointed to in the European Commission? (Commissioner for Competition); 2) In what country is there currently war against IS (Islamic State)? (Iraq); 3) Who is the Conservative People's Party's spokesperson on politics? (Mai Mercado); 4) Who is Minister of Employment in Denmark? (Henrik Dam Kristensen).

In the second wave the questions were: 1) Which party was Klaus Riskær Pedersen recently excluded from? (The Alternative); 2) Which country is currently experiencing fierce fighting after a rebel group overthrew the president? (Yemen); 3) What did a majority in the parliament recently decide that the Danes must hold a referendum about? (The EU legal reservation); 4) Who is Minister of the Environment in Denmark? (Kirsten Brosbøl).

In the third wave the questions were: 1) Which party is Søren Gade running for at the upcoming national election? (Venstre); 2) Who was recently elected as Prime Minister in Great Britain? (David Cameron); 3) Which politician from the Red-Green Alliance is not re-running at the national election? (Frank Aaen); 4) Which minister was recently criticized for his/her role in the sale of Dong? (Bjarne Corydon).

In the fourth wave the questions were: 1) Which party did not run for the national election? (The National Party); 2) Which country has started negotiations on its future relationship with the EU? (Great Britain); 3) What was also celebrated on Constitution Day on June 5 this year? (100 years of women's suffrage); 4) Which party got the most mandates at the national election? (The Social Democrats).

## CHAPTER 4

## OUTLINE FOR ADDITIONAL ARTICLES

In this chapter I outline the plans for the three additional studies in the PhD project. All plans are tentative and will without doubt be adjusted during the next years. Nevertheless, the plans give an important indication of the combined contribution of the PhD project.

### 4.1 Study 3: Media use and political participation across generations

In the third study I plan to examine how the effect of using different news types on political participation is moderated by age (see Figure 4.1). I will do so by comparing the two subsamples of adolescents (age 17-21 in first wave) and elderly (age 65+ in first wave) with the general population sample. This comparison is very interesting, since these two age cohorts have grown up in fundamental different media environments, and thus can be expected to have different media habits and react differently to media exposure. The elderly have lived most of their life in a low-choice media environment with few different options, while the adolescents have grown up with the Internet and a broad spectre of news and entertainment media types. As shown in the introduction chapter (Section 1.1), this "Internet generation" (Bakker \& de Vreese, 2011) or "digital natives" (Moeller et al., 2014) also have different preferences for where to get political information, different opinions about the importance of being updated on news, and different preferences for entertainment, compared with the elderly. All these factors are likely to influence how different news media types affect their political participation. Several studies have examined media effects on political participation among adolescents (e.g., Moeller \& de Vreese, 2013; Moeller et al., 2014;

Quintelier \& Hooghe, 2011), but nobody have directly, to the best of my knowledge, compared these young citizens with the elderly or the general population.

FIGURE 4.1: Causal relationship examined in Study 3


In order to examine this relationship, the study will rely on the panel survey data from first, second, and fifth wave, which are all collected in non-election time, using both the general population sample and the two sub-samples of adolescents and elderly. As in Chapter 3, I intent to distinguish between hard and soft TV news as well as printed and online versions of broadsheets and tabloids. Likewise, I intent to distinguish between offline and online political participation, but further I plan to differentiate between passive and active types of political participation (Bakker \& de Vreese, 2011) in order to take account of potential different patterns at different levels of engagement.

### 4.2 Study 4: The reciprocal relationship between political information and participation

In the fourth study I plan to study the reciprocal effect between exposure to political information in the media and political participation. Such a dual process has been studied before, but primarily with a focus on attitudes, such as political knowledge and interest, and not actual behaviour (Slater, 2007; 2014; Strömbäck \& Shehata, 2010). For example, Moeller
(2013, Ch. 3) found a reciprocal relationship between attention to media use and political knowledge among adolescents, and Boulianne (2011) found a reciprocal effect between television news and political interest. The same mutual dependency can be expected for political participation. If you get political information from the media, it is more likely that you will engage. But if you engage, it also seems more likely that you will seek out more political information in the media.

In order to investigate this reciprocal relationship, I intent to examine how exposure to political information in the news media and political participation (passive/active) are dependent on each other. Exposure to political information in the news media will be measured by combining results from the content analysis with media variables in the survey. Political participation will be divided into passive and active types in order to distinguish between potential different patterns at different levels of engagement. To highlight the impact of peoples' preference for entertainment, I further intent to test whether the reciprocal effects are moderated by peoples' relative entertainment preference (described in Section 1.1). Here, and expectoration could be that people who prefer news will be affected to a higher degree. The causal relationship is illustrated in Figure 4.2.

FIGURE 4.2: Causal relationship examined in Study 4


To make firm conclusions about the causal relationships in a mutually dependent relationship, longitudinal data is a fundamental requirement. Therefore I plan to conduct the analysis on the first, second, and fifth survey waves, which all were conducted in non-election time.

### 4.3 Study 5: The engaging effect of exemplars

In the fifth study I plan to look into a specific entertaining element of the news-the use of exemplars-and how this journalistic practice affects political engagement. Exemplars are common people used by the journalist to illustrate a more complex news story in order to help the audience absorb the information (Zillmann et al., 1996). Thus, exemplars can be seen as an indicator of human interest or episodic framing. Exemplars are known to affect peoples' opinion, even more than politicians and experts (Lefevere et al., 2012). One of the remaining questions is, whether the exposure exemplars also can affect peoples' political participation (see Figure 4.3).

FIGURE 4.3: Causal relationship examined in Study 5


To examine this causal relationship I plan to do two things. Firstly, I plan to use the panel survey data and the content analysis to investigate whether exposure to exemplars (exposure to specific programs weighted by the amount of exemplars used in these programs) affects political participation. In order to take account of potential different patterns at different levels of engagement, I again intent to distinguish between passive and active types of political
participation. Secondly, I plan to do a survey experiment to back up the first part of the analysis. This experiment can either be implemented in the fifth wave of the panel survey or in a stand-alone survey experiment. The survey experiment will contain four stimuli conditions (see Table 4.1 below) plus a control group. In the stimuli conditions the respondents will be shown either a newspaper article or television news clip featuring the closing of local school or something similar. These news items will either contain an exemplar or pure base-rate information (Zillmann et al., 1996). After being exposed to the stimuli the respondents will be asked how likely it is that they will engage in different active and passive types of participation, such as attending a demonstration or post an update on a social media site.

TABLE 4.1: Experimental conditions in exemplar study

|  | Newspapers | TV |
| :--- | :---: | :---: |
| Exemplar | Group 1 | Group 3 |
| No exemplar | Group 2 | Group 4 |

Combining the panel data and content analysis with an experiment will give the study a very high external as well as internal validity. The panel data and content data give a broad scale indication of the relationship between the relevant concepts, while the experiment will provide the study with a strong argument for the causal mechanism.

## CHAPTER 5

## CONCLUDING REMARKS

With a growing fragmentation of the media environment, democracy faces serious challenges for informing and engaging the citizens. In order to attract peoples' attention the news media is increasingly embracing an entertaining dimension in their dissemination of political information. The aim of this thesis has been to examine how this development in the news media affects citizens' political participation. In order to do so, I have presented two full studies in Chapters 2 and 3 as well as the plans for three additional studies of the PhD project in Chapter 4. In this concluding chapter I summarize the key points from the two full studies and outline what the additional studies are expected to contribute with.

Since peoples' news media use is a central concern of my PhD project, it is very important to have the best possible measure for this concept. Thus, I devoted the first study (Chapter 2) to present the main challenges for measuring media use in todays high-choice environment and evaluate the current solutions to these challenges. Based on these considerations I presented the list-frequency technique and tested its validity by comparing it to the simpler list technique. The analyses supported the list-frequency technique in being the best current solution for measuring media use in surveys, since it provides the same aggregate estimates of media use as the list technique (originally validated by Dilliplane et al. (2012)), and further gives more detailed effect estimates and increases the amount of explained variance when predicting levels of political knowledge. Therefore the list-frequency technique was used for the analyses in the second study (Chapter 3), as well as it will be used in the three additional studies in the PhD project (Chapter 4).

In Chapter 3 I examined how use of different news media types (hard and soft TV news as well as printed and online versions of broadsheets and tabloids) affects changes in offline and online political participation indirectly through knowledge and efficacy. An examination of these underlying mechanisms is important in order to understand in which way different news media types affect participation. The results showed that using hard TV news and broadsheets indeed affect changes political participation positively through knowledge and internal efficacy. However, these results are more pronounced for online political participation and in election time. Soft TV news and tabloid newspapers did not affect political participation indirectly through this underlying mechanism, but the results showed how these more entertaining news media types actually do have a positive direct effect on political participation in some settings.

The results presented in Chapter 2 and, most importantly, in Chapter 3 do not provide us with a clear-cut answer to the overall research question. Even though I did not find an indirect effect of using soft TV news and tabloids on political participation through knowledge and efficacy, I did find a direct effect. This result indicates that these entertaining forms of political news affect political participation through other mechanisms. Thus, these news media types might indeed have a substantial democratic potential (Williams \& Carpini, 2011). This potential is supported by the fact that the results presented in Chapter 3 were based in formal types of political participation with a high threshold, such as attending political discussions or contacting the media or a politician to express ones opinion. Since entertaining news formats might influence less active and formal types of participation to a higher degree, the additional studies will additionally include more passive and untraditional types of participation, such as commenting on or sharing information on social media sites. I further intent to explore the moderating role of age in the relationship between the use of
different news media types and political participation (Study 3). I will do so by comparing the news media effects on participation for adolescents and elderly. The adolescents have grown up in the new high-choice media environment, and some studies have shown how young people can learn from an entertaining dissemination of news (Hollander, 2005). In addition to these improvements, the last two studies planned for the PhD project will move from a broad outlet centred perspective to a more narrow and detailed content specific perspective. In practice, this shift in focus will be done by combining the survey data with a content analysis in order to examine the effect of overall exposure to political information (Study 4) and exposure to exemplars (Study 5). Thereby, the additional studies planned in the PhD project will to a higher degree than the full studies presented I this thesis take account of the fact that media effect are contingent on audience as well as content characteristics (Carpini, 2012). Overall, these ambitions will hopefully bring us even closer to a more detailed understanding of how entertainment in the media's dissemination of political information affects the citizens' political participation.

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[^0]:    Question: Where do you prefer to get news about politics?
    $\mathrm{N}_{\text {Adolescents }}=1,047, \mathrm{~N}_{\text {Population }}=3,419, \mathrm{~N}_{\text {Elderly }}=1,518$.

[^1]:    * Current status: "Revise and resubmit" for Journal of Communication Methods and Measures' special issue "Communication Exposure in a Changing Environment".

[^2]:    Two-sided significance test for difference: ${ }^{* * *} \mathrm{p}<0.001 ;{ }^{* *} \mathrm{p}<0.01 ;{ }^{*} \mathrm{p}<0.05 \# \mathrm{p}<0.1 . \mathrm{N}_{\mathrm{L} i s t}=150, \mathrm{~N}_{\text {List-frequency }}=141$.

[^3]:    ${ }^{\dagger}$ Current status: Accepted for submission to Journal of Media Psychology's special issue "The Changing Role of Media Use in Political Participation".

