Two sides to every story

Causes and consequences of selective exposure to balanced political information

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Chapter 1

Introduction
Seventy years ago, during the era of broadcast media, scholars began studying the phenomenon of **selective exposure**, that is, the idea that media consumers purposefully chose pro-attitudinal information – that which reflects their predispositions – and avoid counter-attitudinal information. Despite initial evidence in support of selective exposure (Festinger, 1957; Lazarsfeld, Berelson & Gaudet, 1948), this notion that citizens intentionally crafted their information diet was dismissed since the 1970s (Sears & Freedman, 1967) and still by many today (e.g., Van Aelst et al., 2017). Even though the prevalence of selective exposure has been questioned during past decades, scholarly interest in the subject was reinvigorated as a result of substantial changes in the media landscape during the 21st century.

This contemporary information environment, known as the post-broadcast era, saw a rapid growth of cable news that provided vast and specialized information choices to match consumer preferences (Mullen, 2003). This included the emergence of 24-hour partisan news programming which contributed to a fragmentation of the media landscape, and further allowed citizens to live in a news world that reflected their ideological predispositions (Manjoo, 2008; Sunstein, 2009). Additionally, exposure to news about politics and public affairs became increasingly mediated by the Internet and social media, which lead to speculations that individuals would self-select into personalized **echo chambers** (e.g., Sunstein, 2009) – online information environments in which people are mostly exposed to pro-attitudinal information – and **filter bubbles** (e.g., Bakshy, Messing & Adamic, 2015) – in which information exposure is selected by algorithms to match an individual’s prior selective exposure behavior.

Although the current information environment offers citizens an unprecedented opportunity to see mostly pro-attitudinal information, the debate about the prevalence of selective exposure is largely inconclusive, and some argue that selectivity in a high-choice media environment is not a widespread phenomenon (see Van Aelst et al., 2017). Furthermore, what we know about selective exposure originates from research that has focused mostly on selection of one-sided messages – those that present either pro- or counter-attitudinal information – and has not paid enough attention to balanced messages – those that present both pro- and counter-attitudinal arguments side by side within one message.

It is crucial to focus research on studying balanced exposure for two reasons. One, even if the current media environment has created a substantial supply of online partisan media (Van Aelst et al., 2017), the majority of media outlets continue to favor balanced reporting of competing perspectives, both in the U.S. and in other Western democracies (see
Hallin & Mancini, 2004; Prior, 2013; Umbricht & Esser, 2014; Van Aelst et al., 2017). Also, both observational and experimental research has shown that substantial numbers of media consumers purposely choose balanced political information about political issues (Feldman, Stroud, Bimber & Wojcieszak, 2013; Dilliplane, 2011; Garret, Carnahan & Lynch, 2013; Garret & Stroud, 2014; Levendusky, 2013; Metzger, Hartsell & Flanagin, 2015; Prior, 2013).

Within the traditional scholarly focus on selection of one-sided content, studies have produced mixed findings. Some research has shown that individuals disproportionally chose pro-attitudinal content (Iyengar & Hahn, 2008), but other evidence has suggested this preference is confined to small groups of partisan audiences (e.g., Prior, 2013). Furthermore, other studies have shown that echo chamber and filter bubbles do not warrant a strong concern as some have speculated (see Zuiderveen Borgesius et al., 2016), that individuals seek both pro- and counter-attitudinal news (Bakshy et al., 2015; DiMaggio & Sato, 2003; Stroud, 2011), that they do not avoid counter-attitudinal information (Garret, 2009), and that some people even take advantage of the current high-choice media environment to tune out of political news altogether (Arceneaux & Johnson, 2012; Prior, 2007).

To explain these inconsistencies, some scholars have argued that the prevalence of selective exposure depends on psychological characteristics that vary across individuals, such as motivations and attributes of issue attitudes (e.g., Arceneaux & Johnson, 2013; Garret, 2013; Hart et al., 2009; Knoblock-Westerwick & Meng, 2009), or certain characteristics of media messages, such as information utility or the evidence type for a message claim (e.g., Hart et al., 2009; Knobloch-Westerwick, Johnson, Silver & Westerwick, 2015), or on contextual conditions, such as the amount of pro-attitudinal information that individuals can select (Fischer, Schulz-Hardt & Frey, 2008). Whereas past studies have examined the drivers of one-sided information exposure, we do not yet understand the psychological and contextual factors leading to balanced information exposure.

Another dominant line of research has studied the consequences of selective exposure to one-sided content for information processing and political polarization. That work has shown that even if people are exposed to pro- and counter-attitudinal information, they will uncritically accept the former and refute the latter (e.g., Ditto & Lopez, 1992; Druckman & Bolsen, 2011; Taber & Lodge, 2006). This biased form of information processing has been a dominant explanation of why exposure to either pro- or counter-attitudinal information can lead to the polarization of attitudes among citizens (e.g., Garret & Stroud, 2014, Prior, 2013; Sunstein, 2012; Taber & Lodge, 2006).
In sum, available evidence suggests that selective exposure in a high-choice environment may be limited to certain individuals and contexts, whereas other work suggests that different types of information can fuel political polarization – mostly among certain groups of citizens (see Van Aelst et al., 2017). However, the extant scholarship has studied mostly the selection and effects of one-sided information, and has largely ignored balanced media messages. In this dissertation, I shift this dominant attention from one-sided information towards balanced exposure. Despite the availability and popularity of balanced information, scientific evidence on the factors that drive balanced exposure, in addition to its consequences for information processing and political polarization, is largely missing.

To address this important gap in the literature, this dissertation reports several experiments to study 1) whether the selection of balanced, in addition to pro- and counter-attitudinal information depends on whether an individual is personally invested and has strong opinions about a certain issue (issue public membership), and on the type of evidence for a message claim – numerical vs. narrative (chapter 2); 2) how psychological factors, such as individual motivation and attributes of issue attitudes, influence balanced information selection (chapter 3); and 3) how balanced exposure affects information processing and attitude polarization (chapter 4). Collectively, the experiments presented in the three chapters uncover the psychological underpinnings of balanced exposure and its attitudinal outcomes about contested and highly relevant socio-political issues, such as climate change, health care reform and refugees.

Advancing our understanding of selective exposure and polarization in the current fragmented and personalized media environment has important implications for democracy. Selective exposure threatens the democratic idea that citizens seek and objectively evaluate diverse issue perspectives before making political decisions (Iyengar, Hahn, Krosnick & Walker, 2008; Stroud, 2006). Additionally, selective exposure can also polarize individual attitudes (e.g., Stroud, 2010) – especially among citizens who already hold extreme political views (see Van Aelst et al., 2017) – perpetuate the support of falsehoods (Kull, Ramsay & Lewis, 2003), and influence the way partisan news consumers react to threats (Baum, 2011). If this is indeed the case, the prospects more democracy are dire. For one, having more extreme opinions causes individuals to be less tolerant and open to opposing political views (Mutz, 2002; Sunstein, 2009), and makes them less willing to compromise on contested political issues (Leeper, 2014). Also, polarization across partisan divides can influence citizens to develop different conceptions of reality and factual truth (Manjoo, 2008). Although some research has shown that polarization increases political participation among citizens (Abramowitz, 2010; Dilliplane, 2011), this
could actually pose a threat to democracy if polarization fuels extremist movements of civic engagement (Sunstein, 2009).

Given that selective exposure can lead to political polarization among certain citizens, some have hoped that exposure to counter-attitudinal information could reduce polarization (e.g., Matthes & Valenzuela, 2012). If citizens encounter alternative issue perspectives, they might better understand the motivations that drive opposing views, which in turn could foster political tolerance (Mutz, 2002; Price, Cappella & Nir, 2002). However, counter-attitudinal exposure could fail to act as an effective remedy for polarization, given that individuals refute this information (e.g., Taber & Lodge, 2006) and may even polarize in response to counter-attitudinal messages (e.g., Garret & Stroud, 2014; Wojcieszak, 2011). Although scientific evidence is inconsistent and limited, exposure to balanced messages could be more beneficial for democratic well-being, given that balanced exposure minimizes attitude polarization (Slater, 2007), encourages citizens to become more open-minded (see Lodge & Taber, 2000; Metzger et al., 2015) and helps bring different social groups closer to each other (Matthes & Valenzuela, 2012). Deriving from this normative debate, this dissertation extends our understanding on whether and how balanced content exposure may facilitate these democratic benefits.

Figure 1. Overview of the dissertation
Figure 1 presents the overview of this dissertation. In this chapter, I detail each concept. First, I will review the literature on the prevalence of selective exposure. Second, I will elaborate on the psychological factors that impact selectivity – which are the focus of chapter 2 and 3. Third, I will elaborate on the influence of message characteristics on selective exposure, namely the type of evidence for a message claim – which are studied in chapter 2. Finally, I will explain the relationship between selective exposure, information processing and attitude polarization – the main focus of chapter 4.

The prevalence of selective exposure
Selective exposure is not a new phenomenon, and neither is the debate about its prevalence among citizens. The study of selective exposure goes back to the seminal work of Lazarsfeld, Belerson and Gaudet (1948) on voting behavior, and later on to Festinger’s (1957) research on cognitive dissonance and selective exposure to newspapers. As the dominant explanation of selective exposure at the time, cognitive dissonance theory posited that individuals preferred pro-attitudinal information to reinforce their preferences, but avoided counter-attitudinal information to protect themselves from experiencing cognitive dissonance, which increased uncertainty and psychological discomfort. However, the notion that dissonance avoidance influences information selection was dismissed during the sixties and seventies (see Sears & Freedman, 1967), as numerous studies showed that individuals purposely seek – and do not avoid – counter-attitudinal information (Bartlett, Drew, Fahlé & Watts, 1974; Feather, 1962, 1963; Freedman, 1965; Sears, 1965). Most recent evidence also suggests that individuals have little motivation to avoid counter-attitudinal information (e.g., Garret, 2009; Johnson et al., 2011).

Scholarly attention to selective exposure waned until the end of the century. However, the 21st century brought substantial changes to the media landscape, offering almost unlimited and personalized choices to consumers. With these changes came a renewed interest in the topic (e.g., Mutz & Martin, 2001; Sunstein, 2001). The literature in the past 15 years has produced an unprecedented amount of research on selective exposure, which has yielded inconsistent results.

For one, some individuals take advantage of the vast opportunities offered in the media environment to avoid political news altogether (Arceneaux & Johnson, 2012; Prior, 2007). Among citizens attracted to news about politics and public affairs, some consumers of television and online news, as well as political blogs, prefer pro-attitudinal information (Goldman & Mutz, 2011; Iyengar & Hahn, 2008; Johnson, Bichard & Zhang, 2009; Kohut, Doherty, Dimock & Keeter, 2012; Stroud, 2008), and may avoid counter-attitudinal news.
sources – which are perceived as biased against their side (Iyengar & Hahn, 2009). This preference for pro-attitudinal information has also been supported by experimental research (e.g., Taber & Lodge, 2006) and a meta-analysis (Hart et al., 2009).

However, only a small group of partisan audiences have information diets that are disproportionately composed of pro-attitudinal information (Prior, 2013). Most individuals – even those who consume partisan news sources in television or access political websites – do not avoid counter-attitudinal news (Garret, 2009; Jang, 2014; Johnson, Zhang & Bichard, 2011), but instead actively seek both pro- and counter-attitudinal media (Dvir-Gvirsman, Tsfati & Menchen-Trevino, 2014; Garret, 2009; Garret et al., 2013; Gentzkow & Shapiro, 2011; Jang, 2014; Knobloch-Westerwick & Kleinman, 2012; Prior, 2013; Webster & Ksiazek, 2012). In addition, some individuals are also exposed to pro- and counter-attitudinal information as a result of web-browsing behavior (Flaxman, Goel & Rao, 2016), in personalized news (Beam & Kosicki, 2014), and in social media platforms such as Facebook (Bakshy et al., 2015). However, the extent to which individuals purposely consume opposing perspectives on Facebook may be limited by the content endorsed by their friends (Messing & Westwood, 2012; Winter, Metzger & Flanagin, 2016), and by the influence of news-feed ranking algorithms (Bakshy et al., 2015).

When summarizing the mixed findings, two important caveats should be noted that guide the focus of this dissertation. One caveat is the lack of consistent evidence to conclude that selective exposure is a one size fits all phenomenon. Instead, the available evidence suggests that different citizens engage in different patterns of information selection (see Garret, 2013; Prior, 2013). Therefore, it is likely that the extent to which individuals seek pro- or counter-attitudinal information depends on psychological characteristics that vary across individuals, such as motivations to select information and the attributes of issue attitudes (e.g., Arceneaux & Johnson, 2013; Garret, 2013; Hart et al., 2009; Knobloch-Westerwick & Meng, 2009).

A second caveat is that what we know about the prevalence of selective exposure originates from research that focused mostly on selection of one-sided information (i.e., pro- relative to counter-attitudinal). However, this dissertation argues that further research should account for the selection of balanced content, in addition to one-sided content. One reason to study balanced exposure is that the media environment continues to supply balanced news, both in the U.S. and in other Western democracies (see Hallin & Mancini, 2004; Prior, 2013; Umbricht & Esser, 2014). From the demand side, media consumers seek balanced news coverage provided by broadcast television (Johnson et al., 2010; Prior, 2013). This evidence has been supported by experimental research showing

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that people select balanced content when given the opportunity (e.g., Feldman et al., 2013; Garrett & Stroud, 2014; Levendusky, 2013; Metzger et al., 2015).

Considering that psychological factors play an important role in selectivity, in addition to the importance of advancing our understanding of balanced exposure, this dissertation studies in chapters 2 and 3 whether preferences for balanced, pro- or counter-attitudinal information depend on whether an individual is personally invested and has strong opinions about a certain issue (issue public membership), the motivations driving information selection, and the influence of attributes of issue attitudes (e.g., Arceneaux & Johnson, 2013; Guess, 2016; Knoblock-Westerwick & Kleinman, 2012; Knoblock-Westerwick & Meng, 2009; Winter et al., 2016). In addition, chapter 2 examines whether information selection also depends on characteristics of media messages, such as the type of evidence for a message claim (e.g., Knobloch-Westerwick et al., 2015).

The psychological underpinnings of balanced information exposure

This dissertation argues that the selection and effects of balanced, pro- and counter-attitudinal information can be explained by psychological characteristics of individuals. One psychological factor central to the communication science literature is individual motivation to select and process political information (e.g., Druckman, 2012; Hart et al., 2009; Taber & Lodge, 2006; Winter et al. 2016). For this reason, I draw on motivated reasoning as the core theoretical framework to study, in chapters 2 and 3, the extent to which individual motivation explain differences in selection of balanced, pro- and counter-attitudinal information. Afterwards, chapter 4 examines how motivation moderates the impact of information exposure on processing and attitude polarization. Motivated reasoning theory posits that individual motivations influence the cognitive processes people use to select and process information (Kunda, 1990). Motivation is defined as "any wish, desire, or preference that concerns the outcome of a given reasoning task" (Kunda, 1990, p. 480). Although an individual may have multiple motivations, two main motivations affect information selection and processing: a defensive motivation and an accuracy motivation (Leeper & Slothuus, 2014; Kruglanski & Klar, 1987; Pyszczynski & Greenberg, 1987).

Defensive motivated individuals select and process information in ways that validate and protect their existing attitudes, beliefs and behaviors (e.g., Hart et al., 2009; Kunda, 1990; Kruglanski, 1989; Pyszczynski & Greenberg, 1987). These individuals are more likely to prefer pro-attitudinal over counter-attitudinal information (Hart et al., 2009; Lodge & Taber, 2005; Smith, Fabrigar, Powell & Estrada, 2007; Taber & Lodge, 2006). However, they do not necessarily avoid the latter (e.g., Knoblock-Westerwick & Kleinman, 2012),
and instead may seek counter-attitudinal information to learn what “the enemy” is thinking and how to better argue their position (Valentino, Banks, Hutchings & Davis, 2009). Additionally, these individuals are more likely to process information in a biased fashion, which means they will bolster pro-attitudinal information and refute counter-attitudinal information (Bolsen, Druckman, & Cook, 2014; Lodge & Taber, 2000; Taber & Lodge, 2006).

In contrast, accuracy motivated people use cognitive strategies that are optimal to reach a correct conclusion about a specific issue (Kunda, 1990). As a result, they select and process information in an objective and open-minded fashion, regardless of whether this information supports their prior opinions (e.g., Chaiken, Giner-Sorolla & Chen, 1996). An accuracy motivation reduces selective exposure to pro-attitudinal information (Fischer & Greitemeyer, 2010; Fischer, Jonas, Frey & Kastenmuller, 2008; Hart et al., 2009), and instead, it encourages individuals to seek both pro- and counter-attitudinal information because exposure to diverse perspectives should be more useful to make accurate judgments. This also means that, unlike defensive motivated individuals, those motivated by accuracy should process pro- and counter-attitudinal information in an unbiased and even-handed manner (Chaiken et al., 1996; Kunda, 1990).

Although some scholars have argued that a defensive motivation is the automatic and dominating motivation people use to reason about political issues (e.g., Taber & Lodge, 2006; Taber & Lodge, 2012), this dissertation draws on another perspective which posits that the strength of defensive and accuracy motivations will vary across different individuals and situations (see Leeper & Slothuus, 2014; Lodge & Taber, 2000; Nir, 2011). Motivated reasoning theory has been extensively used in the selective exposure literature to understand the motivations driving the selection of one-sided political content. However, given that some citizens are attracted to balanced messages, chapters 2 and 3 of this dissertation extend the literature by studying the motivations behind balanced information selection, and how this motivated selection relates to other psychological characteristics of individuals (i.e., attributes of issue attitudes).

Chapter 2 links motivated reasoning theory with the issue publics scholarship to study whether the selection of balanced, in addition to pro- and counter-attitudinal information, depends on whether an individual is an issue public member. The issue publics hypothesis argues that individuals are not cognitively capable nor interested in attending to an unlimited range of political issues. Instead, issue publics strive to be well-informed and knowledgeable about issues they care about, whereas they are less informed about issues that are unimportant (e.g., Converse, 1964; Hutchings, 2003; Iyengar, 1990; Krosnick &
Telhami, 1995). Although issue publics can be identified in several ways, such as having an opinion on a certain issue (see Krosnick & Telhami, 1995) or based on demographic membership (e.g., Page & Shapiro, 1992), chapter 2 uses a more direct and reliable approach which defines issue publics based on the importance of their issue attitudes (e.g., Krosnick & Berent, 1993; Kim 2009), and on their strength (e.g., Converse, 1964; Krosnick & Telhami, 1995; see Wojcieszak, 2014). The limited research on selective exposure among individuals who can be characterized as issue publics, those with important and strong attitudes, has shown that issue publics select both pro- and counter-attitudinal information about politics (Iyengar et al., 2008; Kim, 2007; Knoblock-Westwick & Meng, 2009). Chapter 2 extends this literature by comparing balanced information selection between issue publics and average citizens – those who are less personally invested in certain political issues.

Chapter 3 further extends the literature on motivated reasoning and selective exposure by empirically studying how defensive and accuracy motivations impact the selection of balanced, pro- and counter-attitudinal information. In addition, this chapter examines whether motivated selection of balanced content is moderated by two issue attributes, namely, attitude strength and certainty. Research on selective exposure to one-sided content has shown that a defensive motivation is stronger among strongly opinionated individuals (e.g., Hart et al., 2009; Lodge & Taber, 2005; Taber & Lodge, 2006), and consequently, they are more likely to prefer pro-attitudinal information, compared to people with weaker opinions (e.g., Hart et al., 2009; Holbrook, Berent, Krosnick, Visser & Boninger, 2005). Studies on the effects of attitude certainty on defensive-driven selection have yielded mixed findings (Albarracin & Mitchell, 2004; Hart et al., 2009; Knoblock-Westwick & Meng, 2009), whereas the influence of attitude strength and certainty on accuracy-driven selection has not been studied in prior research. Chapter 3 addresses this gap by comparing whether attitude strength and certainty have different moderating roles on defensive and accuracy driven selection of balanced and one-sided information.

Selective exposure and the type of evidence for a message claim

Although chapters 2 and 3 focus mostly on the psychological underpinnings of balanced information exposure, chapter 2 also examines whether differences in selection between issue and non-issue publics also depend on the type of evidence for a message claim. Specifically, this chapter draws on well-established research from health and persuasive communication, which has compared the relative effectiveness of numerical versus narrative evidence (e.g., Allen & Preiss, 1997; de Wit, Das & Vet, 2008). Numerical evidence presents quantitative information about populations (Allen & Preiss, 1997). Narrative evidence uses case stories or examples of individual experiences and conveyed by someone who is firsthand affected by an issue (see Kreuter et al., 2007).
Although political communication scholars have paid little attention to the role of evidence type in explaining selective exposure, I study this factor for two reasons. First, different types of evidence are likely present in news stories, and for example, the percentage of news with narrative evidence has increased in U.S. newspapers (Weldon, 2008). Second, persuasive communication research has documented the importance of evidence type in shaping message effectiveness (e.g., Allen & Preiss, 1997; Perloff, 2003), and in the political communication domain, research has shown that narrative evidence increases people’s acceptance of counter-attitudinal views (Wojcieszak & Kim, 2016). Investigating whether numerical and narrative evidence play a role in determining selective exposure to political information is a fruitful next step in this line of research.

Only a few studies, mostly from health communication, have examined how evidence type impacts selective exposure. Two studies have shown that people prefer narrative evidence on personal issues, such as weight-loss and stress (Hastall & Knoblock-Westerwick, 2013; Knoblock-Westerwick & Sarge, 2015), whereas another study suggested that differences in preference of numerical or narrative evidence regarding hard issues depend on individual characteristics, such as empathy and numeracy (Knobloch-Westerwick et al., 2015). Chapter 2 extends the literature on evidence type and selective exposure by comparing the preference of numerical vs. narrative evidence between issue and non-issue publics, and in addition, whether issue publics prefer balanced content with numerical evidence, compared to balanced content with narrative evidence.

**Consequences of selective exposure for information processing and polarization**

Whereas chapters 2 and 3 study the factors driving balanced exposure, chapter 4 examines its impact on information processing and attitude polarization. Research has shown that pro-attitudinal exposure may lead to more extreme attitudes (Arceneaux & Johnson, 2013; Bennett & Iyengar, 2008; Garret et al., 2014; Levendusky, 2013; Stroud, 2011). Although some have hoped that counter-attitudinal exposure could be an antidote to attitude polarization (e.g., Matthes & Valenzuela, 2012), the available evidence suggests this might not be necessarily the case (e.g., Garret et al., 2013b). Some work has shown that counter-attitudinal exposure may contribute to moderate political opinions (Garret et al., 2014; Mutz; 2002; Parsons, 2010), yet other studies have suggested that counter-attitudinal messages do not weaken attitude polarization, but instead may fuel it (Arceneaux & Johnson, 2012; Arceneaux, Johnson & Cryderman, 2013; Wojcieszak, 2011).

People may polarize in response to pro- or counter-attitudinal messages in the media because they process information in a biased fashion. Citizens rely on two types of
cognitive biases to interpret pro- or counter-attitudinal information. First, an attitude congruency bias, such that pro-attitudinal messages are perceived as stronger than counter-attitudinal messages. Second, a disconfirmation bias, such that people are uncritical in response to pro-attitudinal messages, but spend cognitive effort refuting counter-attitudinal ones (see Ditto & Lopez, 1992; Druckman & Bolsen, 2011; Lord, Ross, & Lepper, 1979; Redlawsk, 2002; Taber, Cann, & Kucsova, 2009; Taber & Lodge, 2006).

The majority of scholarly work on the consequences of information exposure for biased processing and attitude polarization has focused on one-sided messages. Chapter 4 takes a different perspective and examines how processing and polarization are affected by balanced exposure. It is possible that people respond to balanced messages differently, compared to one-sided messages. Balanced exposure may encourage more unbiased processing (see Lodge & Taber, 2000; Metzger et al., 2015), and may constrain polarization, more so than one-sided messages (Levendusky, 2013). Yet, balanced information may also be processed in the same biased fashion as one-sided information (see Arceneaux & Johnson, 2015; Taber et al., 2009; Kahan et al., 2008), which could explain why balanced exposure may have similar polarizing effects (see Arceneaux & Johnson, 2015; Feldman, 2011; Taber et al., 2009).

To explain these mixed findings, it is possible that whether people interpret and react to balanced messages in the same manner as one-sided messages depends on the influence of individual motivations on information processing. As aforementioned, motivated reasoning theory posits that a defensive motivation facilitates biased information processing, whereas an accuracy motivation encourages open-minded reasoning (Kunda, 1990). Chapter 4 draws on this theory to test the extent to which processing outcomes of balanced information exposure, compared to one-sided information, depend on whether individuals are defensive or accuracy motivated. In addition, it also examines whether the impact of balanced information on attitude polarization is moderated by these individual motivations.

Research Design
This dissertation studies how psychological and message factors influence the selection of balanced political information, in addition to how balanced exposure affects information processing and attitude polarization. To answer these questions, I developed a series of online experiments which offer several advantages, such as inferring causal relationships, high internal validity, and control over participant's exposure to stimuli (Durrheim, 2007; Babbie, 2012). However, one tradeoff is their lower external validity, as participants are exposed to information from a limited set of stimuli, whereas they encounter a wider set of information sources in the real world.
To study information selection in chapters 2 and 3, the experimental designs employed self-selection protocols, in which participants select the stimuli from a limited set of choices. This common approach to study selective exposure (e.g., Feldman et al., 2013) simulates a natural media environment in which individuals are free to choose from diverse information sources (Arceneaux & Johsnon, 2012). The experiment in chapter 4 relies on randomized exposure to fixed treatment stimuli, which is an adequate strategy to isolate the causal effects of political information exposure on processing and attitudinal outcomes (see Arceneaux & Johnson, 2012).

Data in all experiments are collected from online, convenience samples of United States citizens. The United States is a suitable context for the study of selective exposure and polarization. For one, scholars, political observers and media pundits have worried that mass polarization has been on the rise in the U.S. (see Manjoo, 2008; Sunstein, 2009; but see e.g., Fiorina, Abrams & Pope, 2005). For example, Americans have become increasingly polarized across partisan divides (Jacobson, 2006), polarization sometimes attributed to the influence of selective exposure to political information in a fragmented media environment (e.g., Bennett & Manheim, 2006; Iyengar & Hahn, 2008; but see e.g., Arceneaux et al., 2013). Furthermore, the American media landscape has seen an increase in the supply of online partisan media – which can influence some of their audiences to become more polarized (see Van Aelst, 2017). Given these considerations, it can be argued that polarization across different issues is a cause for concern.

The samples were recruited from Amazon Mechanical Turk. MTurk is a crowdsourcing online marketplace, in which participants and researchers coordinate the use of human intelligence to perform tasks. The quality of MTurk samples has been examined extensively. Compared to other convenience samples, MTurkers are more demographically diverse, more representative of the general population, and equally or more attentive to experimental tasks (Berinsky, Huber, & Lenz, 2012; Hauser & Schwarz, 2015; Paolacci, Chandler, & Ipeirotis, 2010). Also, identical studies run on Mechanical Turk and nationally representative samples have generated the same results (Leeper & Mullinix, 2014; Mullinix, Leeper, Druckman & Freese, 2015). Attesting to the credibility of MTurk samples, research that relies on these participants has been published in psychology (e.g., Casler, Bickel & Hackett, 2013) and communication science (e.g., Messing & Westwood, 2012). Finally, MTurk samples may accurately represent the population of interest of this dissertation, i.e., Americans likely to read about political news online.

The stimuli of the three experiments consist of short articles that were drawn from existing news articles and issue-specific websites about three contested socio-political
issues in the U.S., namely, climate change, health care reform and refugees. The study of different issues is important to assess whether selective exposure and its effects are sensitive to particularities of socio-political issues (see Stroud, 2008). The stimulus materials were manipulated in ways that certain characteristics were kept constant across articles, whereas only the factors of interest were varied (e.g., balanced, pro-, or counter-attitudinal). Pretests were conducted with MTurk samples to assure that participants perceived the stimuli as intended.

Several methods have been used in the extant literature to operationalize selective exposure at the individual level (for overview see Clay, Barber & Shook, 2013). One method includes retrospective reports of prior behaviors, while another measures intentions to engage in selectivity. This dissertation uses a different method which unobtrusively observes selective exposure behavior in the experimental situation (e.g., Garrett, 2009; Kim, 2007; Knobloch-Westerwick & Meng, 2009). This technique tracks the amount and type of information that participants select from a limited set of information choices. Then, selective exposure is estimated as the congruence between participants’ issue attitudes and the slant (balanced, pro-, or con-issue) of the information they selected. An alternative estimate is to rely on political ideology (e.g., Stroud, 2010), instead of issue attitudes. However, the use of issue attitudes is preferred in this dissertation because using ideology or issue attitudes yields almost the same estimates of selective exposure frequency (Feldman et al., 2013), and also because it allows estimating whether selective exposure varies across different issues (see Clay et al., 2013). In sum, compared to selective exposure operationalization techniques that rely on self-reported behavior, the method used in this dissertation does not assume that participants accurately report their past behavior, or that they accurately predict their future behavior. Instead, the technique used here observes selective exposure as it occurs (Clay et al., 2013).

**Dissertation outline**

This dissertation proceeds with three articles. Each article builds subsequently on the previous one to study the selection of balanced political information, and its effects on information processing and attitude polarization. Chapter 2 examines whether selection of balanced, in addition to pro- and counter-attitudinal information about climate change and health care reform, depends on whether an individual is an issue public member, and on whether a message presents numerical or narrative evidence. Chapter 3 studies how individual motivation influences information selection, and whether this selection is moderated by attitude strength and certainty. Two experiments are implemented, which prime either defensive or accuracy motivations and examine selection of information about health care reform and climate change. Chapter 4 studies how defensive and
accuracy motivations moderate the impact of balanced exposure, concerning climate change and Syrian refugees, on information processing and attitude polarization. Since the three empirical chapters were originally written in the form of articles, they can be read as standalone papers. As a consequence, there is some overlap in the theoretical introductions of the three articles. Finally, chapter 5 looks back at the previous chapters and its results, and draws conclusions about selective exposure to balanced, pro- and counter-attitudinal information, in addition to its processing and attitudinal outcomes. Also, this chapter discusses limitations of the dissertation and suggestions for future research.