# Which came first: The opinion or the news?



## A study on the influence of online news on diversity perspectives in the Netherlands

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#### **Abstract**

The ongoing debates in societies all over the world about the influence of fast circulating and personalized online news about patriotic ideas and negativities concerning cultural diversity in society serve as the basis for this study. A theoretical research of the influence of news on people's perspectives on society generally begins with two assumptions about its potential: the news has to imply bias to a certain degree, and the to-be-influenced people and opinions have to be triggered by this bias. Therefore, this thesis looks at a possible new contributing factor to the influence of news on people's perspectives, namely the online news environment in which its closed information system is accused of having a narrowing, polarizing and attitude reinforcing effect on people's diversity perspectives. The experimental research model provides insight into the full online news media process in which possibilities for selective exposure, as well as the effects of closed information systems online, are explained. Experiment 1 tested the selective exposure theory online along people's diversity perspectives and Experiment 2 tested the influence of unilateral biased news on these perspectives. To measure the diversity perspective variable a validated questionnaire was used to measure people's diversity perspectives, respectively 'multiculturalism' and 'colorblindness', as two separate constructs. To measure people's usage of online news in Experiment 1, a fictive news website was built containing news articles with multicultural and colorblind news articles. To measure the influence of unilateral biased news on people's diversity perspective for Experiment 2, three fictive news websites were built containing news articles containing either a multicultural or colorblind bias, or had no cultural bias. Both were online experiments. This study is motivated by the reignited interest of the selective exposure theory in an online environment and the ability of online mechanisms to narrow rather than widen people's perspectives on diversity. Contradicting these theories, this study finds that people are not motivated to search for online news that confirms their diversity perspective and their diversity perspective is also not amplified by biased online news. Concluded is that only spending more time reading multicultural news reinforces the multicultural- as well as the colorblind perspective, which can be ascribed to the agenda-setting function of multicultural news in the online environment.

Keywords: Online news, cultural diversity, diversity perspective, multiculturalism, colorblindness, selective exposure, bias, attitude reinforcement

#### **Preface**

Just a week ago I came to the realisation that all I have been doing for the last couple of months is making letters and words appear on my laptop screen. That realisation was kind of depressing; I must have had a bad withdrawal for coffee or something. Not too much later I realised I had been staring at the same letters and words for a while already and that I'd better start typing again since they don't write themselves. My personal experiment that researched the influence of studying the master Media & Business on my own personal being is finished. Throughout the last year, all necessary data was gathered to study variables such as academical English skills, curiosity, coffee consumption and knowledge about media & business-related topics of course. A nice steep positive curve was detected for all of these variables, indicating a positive effect of participating in this Master's programme. Not entirely unexpected, significant evidence was found for the negative relationship between studying the master Media & Business and the variables hours of sleep, variation in daily planning, reading for fun and hours of partying. Concluding on these results can be stated that this master has brought me a lot of things. I know this isn't a very academic conclusion but hey, the following 72 pages are enough to chew on I think.

I would like to end with a very big thank you to my thesis supervisor Joep, who with his always apparent enthusiasm and overload of ideas, helped me to develop the concept for this thesis and helped me to figure out my brain when I was once again confused about my own reasoning. I'd also like to thank my mom, dad, and Lieke for supporting me during this thesis period and for convincing me to come back home from Bali to do this Master's study instead of flaunting around in Asia for the rest of my life. Last but not least I'd like to say thank you to my friends Lisan, Marissa, Vera, and Lisette for sharing the self-pitiful but sociable library days with me. Now I hand in 74 pages of new self-invented knowledge and will hopefully get 1 very valuable paper in return that proves that my dedication to the letters and words on my computer was more than worth it and that I did something pretty cool after all.

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#### 1. Introduction

''The human spirit must prevail over technology.''
Albert Einstein

After the United States' Presidential elections held on Tuesday November 8, 2016, a wave of discussion about fake news that appeared on Facebook and the influence this news was said to have, flood the United States and the rest of the world. The news media responded to the fake news with dozens of articles in which they accused Facebook of influencing the outcome of the Presidential election (Olson, 2016; Ohlheiser, 2016; Parkinson, 2016; Leonhardt, 2016; Tavernise, 2016; Ahuja, 2016). The highly-personalized newsfeed offered by Facebook would have made it possible for the fake news to circulate and influence individual's opinions and with that their voting behaviour (Ahuja, 2016). Facebook, the social media network that exists to connect people, was accused of being polarizing and was said to help dividing families and friends by evoking irrational fear through the spread of fake news on their platform (Olson, 2016; Parkinson, 2016). Mark Zuckerberg, Facebook's co-founder and chief executive, called the allegations that Facebook influenced the result of the 2016 elections a "crazy idea" and said that the fake news on Facebook "surely had no impact" on who American voters chose to be their president (Ohlheiser, 2016). Zuckerberg's defence against the allegations touched upon the ability of news, whether fake or real, to influence people's opinions in the first place. The fake news about the USA Presidential election was the catalyst of a larger debate in societies all over the world about the influence of (fake) online news on people's opinions. In modern societies, the consumption of news is an important aspect of everyday life and information processing and reciprocal communication are concepts that exist as long as humans do and are essential to all purposive activities (Beniger, 2009). New technologies and technological developments are expected to keep pushing the boundaries of information processing and consumption and with that the boundaries of social changes. With the rapid growth of new technologies, among which the internet, questions rise about its role in shaping societal changes, opinions and perspectives.

#### 1.1 A new era for news consumption

The influence of news media is a part of a dynamic process that develops and unfolds over time (Holbert, Garrett, & Gleason, 2010; Slater, 2007). Numerous studies in psychology have proven that news doesn't have influence on our perspective on the world around us. A theory that is widely argued by many researchers is that people don't read the news articles they disagree with to begin with (Boomgaarden & Vliegenthart, 2007, 2009; Dutta-bergman, 2004; Li, Chu, Langford, & Wang, 2011; Valentino, Banks, Hutchings, Davis, 2009; Vasterman, Yzermans, & Dirkzwager, 2005). This

doesn't mean that people's perspectives are always set and stable, but it does imply that variation in their perspectives is probably due to external shocks that change certain relevant societal conditions and with that people's perspectives (Boomgaarden & Vliegenthart, 2009). Wanta, Golan and Lee (2004) emphasize on this idea and refer to the 'agenda-setting' function of news, which stresses that news doesn't tell people what to think but it does tell people what to think about. This implies that people's opinions and perspectives aren't influenced by news, but that news merely steers people's attention in a certain direction. These findings correspond to the statement Mark Zuckerberg made to the Washington Post about the influence of the fake news that appeared on Facebook. He stated that "voters make decisions based on their lived experience" (Ohlheiser, 2016). The allegations to Facebook of influencing the results of the election contradict with the existing research about the influence of traditional news media, which states news doesn't have influence on people's perspectives (Boomgaarden & Vliegenthart, 2007, 2009; Dutta-bergman, 2004; Li et al., 2011; Valentino et al., 2009; Vasterman et al., 2005). Nowadays, a decrease in the use of traditional news such as television, newspapers and magazines and an increase in the use of online news leads to different forms of gratification opportunities for the consumer (Dutta-bergman, 2004). The influence of traditional news on people's opinion is a topic that is already widely researched and discussed. However, the influence of the increasingly used online news on people's opinion is still an underexplored area and could use more research since the ways people consume news and are presented with it online is different from traditional news; technological developments have changed the consumption of news and push individual's online behaviour in certain directions. As a result, their online searches for news and newsfeed become more personalized (Knowles, Lowery, Hogan, & Chow, 2009; Knobloch-Wersterwick, Sharma, Hansen & Alter, 2005; Dutta-bergman, 2004). The internet created a new era for news consumption and opens up new possibilities for influencing and persuasion (Schultz & Roessler, 2012). Reading news in an online context raises the question to what extent the news content itself influences opinions, and what the role is of the online environment in which the news is presented. When reading news in an online environment, the mechanisms in the online environment create a more personalized newsfeed which can result into echo chambers that mirror and resemble the reader's previous choices (Garrett, 2009; Schultz & Roessler, 2012). The changing way readers are presented with news online in a personalized and filtered environment may be of significance to their opinions.

Scholars argue about the possibility that the vast amount of choices for online news and personal control could increase people's tendency for selectivity of certain news (Knowles et al., 2009; Knobloch-Wersterwick et al., 2005; Dutta-bergman, 2004; Sunstein, 2012). Contradictorily, the online news environment could possibly weaken traditional social, informational boundaries which might lead to an increased exposure to diverse perspectives. When looking at existing literature about the influence of news on people's perspectives and opinions as mentioned before, this is a rather contradicting conclusion. Therefore, this research will look into the influence of the online news

environment and possibilities of selective exposure to news online on people's perspective on cultural diversity, which will be discussed in the next section.

#### 1.2 News and polarisation in the Dutch society

Questions and concerns arise about the role of the information tide in society that exists as a result of the online world. One of these questions is if the internet, with its great capacity for managing information flows online, would help to develop polarization in a well working democracy (Garrett, 2009; LaCour, 2013; Mutz & Leighley, 2017; Mutz & Martin, 2001; Brundidge & Rice, 2009). Numerous scholars underscore the need for research on whether reading news online can have implications for the existence or development of polarization of opinions (Scheufele & Tewksbury, 2007; Tewksbury & Rittenberg, 1998; Sunstein, 2001). The other way around, Sunstein (2001) argues the possibility of pre-existing audience polarization that may result in more specific and targeted news reading. The influence of online news on people's perspectives might show from topics that are prone to work polarizing, which are often societal engaging topics. A widely covered polarizing topic in the Dutch news, that people read consciously or unconsciously read about, and that causes a lot of debates in the Dutch society is cultural diversity. Therefore, this study will use the topic 'cultural diversity in society' to research the influence of online news on people's perspectives and it's possible polarizing working.

The Netherlands knows a lot of ethnic-/cultural diversity in the society due to its successive waves of immigration throughout the last centuries (Vasta, 2007). Some immigrated from the former Dutch East Indies (now known as Indonesia), a lot of people came from the Dutch Antilles and Surinam and some came as so-called "guest workers" from Turkey, the south of Europe and Morocco. The degree of cultural diversity in the Netherlands is reflected in the debates in the Dutch society about multiculturalism and the alleged 'failure of multiculturalism' is a hot topic of discussion in a country that is self-proclaimed tolerant and open minded (Boomgaarden & Vliegenthart, 2009). When looking at the ongoing debate in the Dutch society about multiculturalism, discrimination because of skin colour and tolerance there are a lot of online news sources that discuss the debate from a different point of view. This disunity embedded in the Dutch society shows clearly in the discussion about the Dutch Sinterklaas celebration with headlines on Dutch news websites such as "There are more important things going on in our country" (Rust, 2016) and "Black Pete; people in privileged positions act as if racism doesn't exist" (Bruijn, 2016). Another example that causes a lot of heated debates in society about multiculturalism and discrimination are the statements of the Dutch politician Geert Wilders. Dutch political parties, media and society are triggered and challenged by his statements about the Islam, Muslims, the Koran, and Moroccans to formulate an opinion about these topics as well (Schuh, Burchardt, & Wohlrab-Sahr, 2012). Cultural diversity in society can be perceived as a sensitive and polarizing topic and is therefore useful to research the influence of online

news on people's perspectives. Most previous macro-level studies that tried to explain the influence of news on social perspectives have missed an important factor, because they ignored the information environment and closed information systems provided by online news media. Accordingly, this study aims to contribute to the existing research and approaches about cultural diversity and news, and therewith to extend the prior work that is conducted about the effects of online news on opinions and in particular on diversity perspectives.

An important part of this study focusses on the new context in which news is presented in the online environment. Selectivity online plays a key role since the internet not only relights the discussion about selective exposure to news but also opens a new door to the inevitable exposure to many different opinions and news sources (Schultz & Roessler, 2012). To create an accurate and complete depiction of the news media effects process, a model in which the selectivity of news and its effects are both assessed within the same analysis is needed (Holbert et al., 2010). Pioneering on the latter, the aim and structure of this study are twofold: on the one hand, it considers the influence of diversity perspectives for the choice of online news, and on the other hand, the influence of online news on diversity perspectives. This twofold character gives the opportunity to compare both components and helps to give an answer to the following research question:

How does online news influence diversity perspectives in the Netherlands?

#### 1.3 Online experiments

To study the research question, a dual approach is chosen to explore and expose both the possibility for selectivity of news online and its influence on diversity perspectives. This research seeks to further the understanding of people's choices for online news and the influence of online news by using people's diversity perspectives. These perspectives can be specified through the division between 'multicultural' and 'colorblind' perspectives on diversity, which will be further elaborated on in the theoretical framework (*Chapter 2.2*) (Jansen, Vos, Otten, Podsiadlowski, & van der Zee, 2016; Jansen, Otten, & van der Zee, 2015; Stevens, Plaut, & Sanchez-Burks, 2008). As already mentioned, the intent of this study is twofold and therefore incorporates two separate experiments of which the comparison and combination of both will create an accurate and complete depiction of the online news media effects process with its possibility for selectivity and its effects both considered in the analysis. Both experiments are accompanied by a research question to show the experiment's intent and to provide an explanation for this study's umbrella research question. The research question of the first experiment is as follows:

How does selective exposure to online news apply in regards to diversity perspectives in society?

This first experiment focusses on the possibilities for selectivity of news online. A quantitative research, in specific an experimental design, will help to detect variation in the choice of online news and its relationship with the diversity perspectives. The subject's online news behaviour will be observed and compared to the extent to which people enhance the colorblind and/or multicultural perspective on diversity. The research question of the second experiment is as follows:

What is the effect of reading biased unilateral online news on people's diversity perspectives?

This second experiment focusses on the effects of the personalized and filtered newsfeed online and will help to detect variation in the diversity perspectives through manipulation of online news.

The remainder of this study is organized as follows: In the theoretical framework (*Chapter 2*), additional related work is presented and considered and the hypotheses that will help to research the research question are formulated. In this chapter, the diversity perspectives and theories about selective exposure online and polarization due to the closed information system online are discussed. The theoretical framework is followed by the method chapter (*Chapter 3*) which is used to describe the development of the experimental materials, the research design, the sample and the analyses that are used in this study. The results chapter (*Chapter 4*) presents the results of the analyses that are executed with SPSS. This chapter shows whether the hypotheses are rejected or are found to be significant and what these results mean for the theory as it was proposed. The results chapter is followed by the conclusion and discussion of this study (*Chapter 5*) in which a conclusion is drawn based on the results of the analyses and also provides an answer to the research question. Also, suggestions for further research are made and implications of this study are explained.

#### 2. Theoretical framework

This study researches whether online news influences people's perspectives by using the polarizing topic 'cultural diversity in society' to measure this influence. The aim of this study is to establish the degree to which online news contributes to the perspectives on diversity in the Netherlands. In this chapter theories about multiculturalism and colorblindness, selective exposure to news, bias in news and the amplifying impact of the internet on these theories are explained in order to get a clear view on what they mean and how they relate to each other. Based on these theories hypotheses are formulated that help to analyse the research question '' *How does online news influence diversity perspectives in the Netherlands?''*. This theoretical framework serves as an analytical overview of the information about the influence of online news on diversity perspectives and serves as the basis upon which the experimental research design is built. The context of this study is the Netherlands in which multiculturalism in the news raises discussions about the influence of news media on Dutch citizens' opinions.

This chapter starts with explaining diversity perspectives (Chapter 2.1). It is necessary to have an understanding of the different diversity perspectives before elaborating on the influence of online news because the diversity perspectives will be used throughout this chapter to explain the influence of online news. The diversity perspectives, respectively multiculturalism and colorblindness, need to be understood to be able to hypothesize about what happens to people's perspective when they choose a certain type of news (Stevens et al., 2008). The choice for a certain type of news, called the selective exposure theory, is discussed in *Chapter 2.2*. This theory emphasises people's acceptance or ignorance towards certain news that is or isn't in accordance with their own beliefs (Boomgaarden & Vliegenthart, 2007, 2009; Dutta-bergman, 2004; Li et al., 2011; Valentino et al., 2009; Vasterman et al., 2005). As the basis of a lot of theories about the influence of traditional news media, the selective exposure theory is widely discussed and is revived by the possibilities for news consumption online. In *Chapter 2.2* hypotheses are presented about the possibilities for the expected effect of diversity perspectives on selective exposure online. Chapter 2.3 provides information about what happens to people's perspective when their perspective is subject to the closed information system online. This paragraph will further zoom in on the alleged polarizing effect of the online news media as mentioned in the introduction, and is necessary to obtain an understanding of possibilities of under- and overexposure to certain (biased) news online and in particular what their implications for diversity perspectives can be. This chapter presents hypotheses about the effects of reading biased and unilateral news online.

#### 2.1 Diversity perspective – Multiculturalism and colorblindness

The Dutch society has changed over the past decades due to an increase in immigration and a growing presence of diverse ethnic-/cultural groups. These changes of the society's composition go along with different perspectives and ideas on how ethnic-/cultural groups should live alongside each other (Kauff, Asbrock, Thörner, & Wagner, 2013). According to Banks (2017), unity in society without cultural diversity can result in cultural repression and hegemony. The other way around, cultural diversity in society without unity can lead to Balkanization and the fragmentation of society. Therefore, cultural diversity and unity should ideally exist together in a balance (Banks, 2017). Cultural diversity in society poses challenges to civic and redistributive values (Soroka & Johnston, 2008). The higher the level of ethnic-/cultural heterogeneity in society, the lower the level of trust and other communal attitudes. The creation of an in-group bias occurs when individuals share their ethnic-/cultural background. This in-group bias develops affection, trust and cooperation for group members but also out-group hostility. When cultural diversity is measured at a national, regional or local level it might not accurately reflect the real experiences or perceptions of the heterogeneity people experience in their day to day lives (Soroka & Johnston, 2008). These theories show the challenges of cultural diversity in society.

Cultural diversity in societies can have a great impact, in a positive and in a negative way, on the well-being of societal performances and has positive and negative outcomes (Jansen et al., 2015). Individuals can benefit from a culturally diverse society when it provides an environment in which individuals are able to maintain attachments to their ethnic-/cultural groups and in which they can participate successfully in the shared national culture. Many problems that are associated with cultural diversity emerge from individuals' habit to categorize the environment they live in into ''us'' and ''them'', with which they create a social barrier between the majority and minority groups in society (Banks, 2017; Jansen et al., 2015; Soroka & Johnston, 2008). These categorizations can be explained by the two different diversity perspectives that are used in this study.

Diversity perspectives explain how people perceive society and in particular how people perceive cultural- and ethnical differences in society. The perspectives have an influence on people's daily lives and choices and can be influenced by people's daily lives and choices as well, including the choices for the news they read (Stevens et al., 2008). Therefore, they will be used as a context to explain the influence of online news later in this chapter and throughout this study. The approaches to diversity that are most frequently described in the literature are the multicultural perspective and the colorblind perspective (Jansen et al., 2008, 2015; Stevens et al., 2008; Crisp & Turner, 2011; Levin, Matthews, Guimond, Sidanius & Dover, 2012; Plaut et al., 2009, 2011; Richeson & Nussbaum, 2004; Ryan, Hunt, Weible, Peterson, & Casas, 2007; Stevens et al., 2008; Knowles et al., 2009). To make sense of the culturally diverse environment people live in, they use social categorizations based on

demographic differences to structure that diverse environment and as explained earlier people tend to make categorizations of ''us'' and ''them'' (Stevens et al., 2008; Banks, 2017; Jansen et al., 2015; Soroka & Johnston, 2008). The way people perceive cultural diversity of the society they live in can influence their perception of ''us'' and ''them''; in-group bias and out-group hostility can foster an inclusive as well as an exclusive environment towards majority and minority groups in society (Soroka & Johnston, 2008). The experience of cultural diversity is not the same for everyone, and it can lead to both positive and negative outcomes such as acceptance and polarization.

The Dutch society, like many others, can be described as a multicultural society with a great variety of minority groups due to the globalization, the increasing possibilities for global mobility and waves of immigration in the past and in the present. The change of cultural, ethnic and social boundaries made more complex and diverse representations of identity in the Dutch society possible and created an environment in which multiple diversity perspectives were able to develop (Boomgaarden & Vliegenthart, 2007; Crisp & Turner, 2011; Vasta, 2007). Previous research has demonstrated that people differ in the extent to which they are supportive of the multicultural perspective and the colorblind perspective (Jansen et al., 2016; Stevens et al., 2008). It is important to mention that one perspective does not exclude the other and that both perspectives can have a strong or a weak presence (Stevens, et al., 2008). Therefore, in this study diversity, with its two approaches, is reviewed as a 'double-edged-sword'.

#### 2.1.1 Multicultural perspective

Individuals who adopt the multicultural perspective stress that differences between cultural groups in society should be acknowledged and celebrated. They emphasize the benefits of cultural diversity and they see differences between cultural groups as a strength (Jansen et al., 2016; Jansen et al., 2015; Stevens et al., 2008). The multicultural perspective is according to Jansen et al., (2016) an "allencompassing" approach to diversity in which differences are of great value. People who adopt a multicultural perspective stress the importance of differences between different ethnic- and cultural groups in society and acknowledge the benefits this can have for social interactions and development (Jansen et al., 2015; Plaut et al., 2009; Richeson & Nussbaum, 2004). Multiculturalism is attractive to minorities since from this perspective cultural diverse backgrounds are being recognized. In this study minority groups are referred to as groups of people who have been subjected to unequal and differential treatment because of their physical ethnic characteristics (Plaut et al., 2009, 2011; Stevens et al., 2008). According to the Statistics Netherlands (CBS), on 08-05-2017 the Netherlands had almost 17 million citizens of which about 2.1 million non-western foreigners; people of who at least one parent is born in Africa, Latin-America and Asia (with the exception of Indonesia and Japan) or Turkey (CBS, 2017). People originating from these parts of the world usually have a different ethnicor cultural background than Dutch people and could because of that potentially stand out in society

due to their customs and beliefs. According to the multicultural perspective, group identities such as religion, ethnicity and race are acknowledged in society and can be preserved (Stevens et al., 2008). The extent to which multiculturalism is supported by individuals is different between minority and majority group members; previous research has pointed out that in general majorities are more colorblind than minorities (Plaut et al., 2009). The other way around, minorities tend to have a more multicultural perspective than majority group members (Jansen et al., 2016; Plaut et al., 2011). Majority group members (in the Netherlands these are people with a Dutch heritage or western foreigners) have the tendency to perceive multiculturalism as something that is only for minorities. Therefore, multiculturalism is often thwarted by majority groups in society who feel resistance against the idea of inclusion and the acceptance of cultural differences (Stevens et al., 2008). Because majority group members usually don't see themselves as diverse they see less need in the preservation of different ethnic- and cultural identities. Since this is important for people with a multicultural perspective, they are less likely to adopt multiculturalism (Jansen et al., 2016).

#### 2.1.2 Colorblind perspective

Individuals who are colorblind stress that group differences and cultural group identities should be ignored and that people should be treated equally as individuals (Jansen et al., 2016; Stevens et al., 2008). As seen from this perspective, racial categories do not matter, and should preferably not be addressed in a categorizing way (Richeson & Nussbaum, 2004). Colorblindness is connected to ideals of equality, individualism, meritocracy, assimilation and people with a more colorblind perspective see society as a melting pot (Stevens et al., 2008). People with a more colorblind perspective on society ignore the existence of group differences and try to decrease the growth of individual- and group differences as well (Stevens et al., 2008). There are different ways to cope with cultural differences in society. Ignoring the existence of group differences in society is a negative result of the stress, distress and other psychological emotional outcomes caused by the colorblind perspective (Crisp & Turner, 2011). Perceiving the society as a whole in which differences and categorizations are of no interest and as an inclusive environment towards everyone isn't solely associated with a positive and progressive perspective on society. The effectiveness of cultural diversity in society is for a large part dependent on the receptiveness of majority group members since a lot of communication and diversity efforts often only deal with the majority groups. The diversity initiatives often intend to solve problems that minority groups are primarily faced with. As an unintended consequence, these initiatives with their one-sided focus sometimes give majorities the idea that diversity is only for minorities (Jansen et al., 2015). Individuals with a colorblind perspective often deny the existence of structural and ideological racism that exists in society due to their one-sided focus. That this might have unequal effects for minority group members is something the colorblind perspective fails to acknowledge (Jansen et al., 2016; Richeson & Nussbaum, 2004). As seen from the colorblind

perspective all people should be treated equally and the same (Jansen et al., 2016; Richeson & Nussbaum, 2004; Stevens et al., 2008). Despite its ideals being meritocracy and equality, this perspective is often defined by minorities as exclusionary (Stevens et al., 2008). Because colorblind members of majority groups try to be inclusive towards minority groups, they create an environment in which they deny existing cultural differences and existing social categories which results in disadvantages for the existing minority groups. This (unintended) backlash that results from ignoring group differences by colorblind individuals undermines the cultural heritage of ethnic minorities in society. This can be harmful to these minorities (Richeson & Nussbaum, 2004).

Research has indicated that individuals with a more colorblind perspective have a stronger racial bias and are linked to interpersonal discrimination among majorities (Jansen et al., 2016; Richeson & Nussbaum, 2004). Colorblindness in society is therefor also linked to racism because it is the (often unconscious) system of beliefs that the society is tolerant and liberal while there is a lot of exclusion going on because of the ignoring of differences (Vasta, 2007). According to Vasta (2007), racism is an attitude that emerges with modernity because people try to cope with the complex and diverse social world around them. Since the Netherlands is a country with a large degree of diversity, some people adopt colorblindness as a way to make sense of this culturally diverse society they live in and to be including towards minority groups. Since not everyone experiences the same amount of ethnic- and cultural diversity in their environment, people's diversity perspectives are shaped by their own lived experiences and sources of information.

The high degree of cultural diversity in the Netherlands is reflected in the amount of different Dutch online news sources that are available to the public. These news sources all base the reporting of their news on the same set of underlying facts. Nevertheless, they all report the news along their own framework of references that is shaped by the cultural categorization they make (Shapiro, Alesina, Ambrus & Zeckhauser, 2005). Their selective neglect, word choice and the variation in credibility they ascribe to the primary news source shapes their impression and with that their presentation of the news event. The news media slants information in a way that is called bias and reflects their perspective on diversity. Often, the news media's bias varies based on its target audience. Previous research suggests a correlation between the news media's bias and the views of their readers (Shapiro et al., 2005; Stroud, 2008). News media report news along the way they perceive the society around them and always slant slightly in a certain direction in regards with the two diversity perspectives. Therefore, the diversity perspectives are useful to measure the influence of biased online news.

#### 2.2 Selection of-, and exposure to news online (H1, H1a & H1b)

The previous section explained the different diversity perspectives, multiculturalism and colorblindness, and that these perspectives are used to make sense of the society people live in. A way

people become educated about the society they live in and its cultural composition is through news (Valentino et al., 2009; Holbert et al., 2010; Sunstein, 2002). The goal of this section is to provide information about how, according to previous research, individuals are exposed to news and how they select the news they read. Central in this section is the Internet's role and its influence on individuals' selection for certain news. The theories about exposure to news and selection of news will be reflected on the diversity perspectives and predictions are made about what the implications of these theories are for people's perspective on diversity. The theories discussed in this section result in the formulation of the hypotheses H1, H1a and H1b which try to find an answer to the question ''How does selective exposure to online news apply in regards to diversity perspectives in society?''.

#### 2.2.1 Introduction to the selective exposure theory

In this digital age where news has become omnipresent the internet has greatly contributed to the information tide (Knowles et al., 2009; Knobloch-Wersterwick et al., 2005). Before the emerge of the internet consumers used to be limited to printed news media such as national and local newspapers. Due to the internet, consumers can choose from many more sources online to be informed about local, national and international news. Not only the production of news but also the consumption of news has changed due to new technologies (Dutta-bergman, 2004; Valentino et al., 2015). The increasing choice in media and information online permits the audience to opt out of news from many different online resources (Dutta-bergman, 2004; Valentino, et al., 2015; Bakshy, Messing & Westwood, 2014; Tewskbury & Rittenberg, 2002). When talking about the impact of the internet on the exposure to news there are generally two camps. The first one states the internet increases the likelihood that consumers are exposed to diverse news because of the increase of accessible information. From this point of view, online news media give audiences more independence in choosing what news they want to view and with that which perspectives and opinions they encounter (Bakshy et al., 2015; Valentino et al., 2015). The first camp reviews the exposure to news online as a product of active choice (Dutta-bergman, 2004). This active choice shows from individuals willingness to expose themselves to diverse information and viewpoints and therewith learn more about to them unfamiliar perspectives (Stroud, 2008). The gatekeeping that was present in traditional news media and provided a dominant paradigm for news gathering and publishing has undergone changes in the online news media environment (Bruns, 2005). In online news media, there are fewer restrictions on the available publishing space, which were inherent to the traditional news media. Online, consumers of news are less reliant on the information that passes through the 'gates' of mainstream news organizations and can opt out of what sceptics perceive as an abundance of 'junk news information' (Bruns, 2005; Bawden & Robinson, 2009). This means that online news consumers might need a stronger realisation of how much junk news is available among the more reliable 'hard news'. The paradox of choice created by the overload of news and information online can affect individuals' efficiency in using

information they read. An increase in diversity of information and news online can lead to this overload and is not necessarily negative or positive. It does increase the difficulty of fitting the different perspectives and opinions within cognitive framework that can be used as a reference, which could result in a widening of one's perspective (Bawden & Robinson, 2009). Hence, digital technologies have the possibility of nourishing a far-reaching medley of different voices and stories and of presenting these to the audience (Burns, 2005; Bawden & Robinson, 2009). The abundance of online news might broaden perspectives on society when people take advantage of the possibility to choose to read more news articles with a different tonality and bias and when people, due to the overload of information, find it hard to construct 'boxes'.

The second camp states the internet decreases the likelihood that consumers are exposed to diverse news and opinions (Valentino, et al., 2015; Garrett, 2009). The biggest concern of people in the second camp is that individuals will only look for those online news articles and online news websites that reinforce their current preferences, which will increase social fragmentation and polarization and is associated with more extreme attitudes over time (Valentino, et al., 2015; Bakshy et al., 2015; Garrett, 2009). The latter is called the selective exposure theory; the selection of (news) media that matches people's predispositions and beliefs (Dutta-bergman, 2004; Valentino et al., 2015; Stroud, 2008). The selective exposure theory is the basis for thinking about how individuals determine which news source they choose to read, also when talking about traditional media (Burns Melican & Dixon, 2008). According to Garrett (2009), this theory means that exposure to different media content is a product of active choice. This phenomenon is explained by the cognitive dissonance theory which states that dissonance produces discomfort and because of that it pressures to reduce or eliminate the dissonance that arises (Festinger, 1989; Garrett, 2009). In that respect, people experience positive feelings when they read information that confirms that their ideas are the right ones (Festinger, 1989; Garrett, 2009). Selectivity online is very easy and therefor a pattern may be expected in individuals' choices for certain type of news. According to numerous studies, there is substantial evidence that individuals are indeed interested in reading opinion-reinforcing information (Bakshy et al., 2015; Boomgaarden & Vliegenthart, 2007, 2009; Dutta-bergman, 2004; Garrett, 2009; LaCour, 2013; Sunstein, 2002; Vasterman et al., 2005). The selective exposure theory states that individuals look for information that matches their cultural predispositions about the society and politics in particular, and interpret the information on behalf of these predispositions (Dutta-bergman, 2004; Burns Melican & Dixon, 2008; Garrett, 2009; Valentino et al., 2015; LaCour, 2013). The selective exposure theory has made many to believe that the internet will lead us to an increase in social fragmentation, ideologically close-minded groups and polarization in society (Sunstein, 2002). It is important to mention that the selective exposure theory doesn't mean that individuals systematically avoid contact with information that doesn't match their diversity perspective. They don't filter out articles that don't match their opinion but their tendency to read articles that do is simply bigger, especially with political and societal engaged topics (Garrett, 2009; LaCour, 2013; Liao & Fu, 2013; Valentino et al.,

2015; Vasterman et al., 2005). According to the selective exposure theory news media don't have a big effect on people's opinions because individuals don't read the articles they disagree with (Li et al., 2011; Vasterman et al., 2005; Vaccari, 2013). The selectivity, as endorsed by this theory, may thus expand opportunities for attitude reinforcement but that doesn't necessarily imply a change in attitude. This leads to the following hypothesis:

H1: There is a positive relationship between people's diversity perspective and their choice for news articles.

#### 2.2.2 The selective exposure theory in the online news environment

The usage of internet to search for news items has reignited the interest in the classic and debated selective exposure theory (Vasterman et al., 2005). As mentioned in the introduction and in the previous section, the internet offers a high level of user control and permits individuals to opt out of exposure to news from many different online resources (Dutta-bergman, 2004; Valentino, et al., 2015; Bakshy et al., 2015; Tewskbury & Rittenberg, 2002). There has not been an agreement on the functionality of the selective exposure theory in an online context. Critics of the selective exposure theory in an online context have stated that in the internet age, news consumers are moving into a new era in which news online has limited effects and selectivity is said to reduce the likelihood of influence and shifts in the consumers opinion (Holbert et al., 2010; Knobloch-westerwick & Johnson, 2014). These scholars question the existence of the underlying psychological tendency of seeking support for politically motivated subjects and to avoid challenging information in an environment where there is an abundance of information (Holbert et al., 2010; Knobloch-westerwick & Johnson, 2014). They also state that an individual's choices that do provide exposure to predominantly opinionreinforcing news do not have to be motivated by opinion-based selectivity per se. They can also be secondary consequences of decisions that are not related to ideology, but for example are related to individual's own socio-economical background or other contextual factors. People might base their choices on the relevance of the information for their daily lives and seek for information and topics that they are familiar with (Knobloch-westerwick & Johnson, 2014; Knobloch & Francesca, 2005). These theories imply that most people use the full functionality of the internet that allows them to be presented with different types of information, opinions and perspectives. They also imply that the choices individuals make online that do lead to opinion-reinforcing news might not be guided by their perspectives but by other contextual and socio-economic factors. This doesn't support the idea of selective exposure to news online and its influence on perspectives due to these exposure patterns.

Advocators of the selective exposure theory in the online environment state that the ability for people to be more rigid in their information seeking online than with traditional media helps the selective exposure theory, because the ability to look for opinion reinforcing information online in

comparison than with traditional news media is evident (Bakshy, Messing & Westwood, 2014; Duttabergman, 2004; Knobloch-westerwick & Johnson, 2014; Scheufele & Tewksbury, 2007; Valentino et al., 2015). The internet creates an information environment in which people have more control over their exposure to news and which therefor makes it easier for individuals to choose opinion reinforcing news articles. In the online environment, consumers are forced to choose more often due to the multiplying number of potential news sources. The increase in choices online may lead to a less diverse exposure to news (Mutz & Martin, 2001; Brundidge & Rice, 2009; Stroud, 2008). The potential for selective exposure online increases due to the multiplying options of news media (Mutz & Martin, 2001; Brundidge & Rice, 2009; Stroud, 2008; Sunstein, 2002). Scholars note that the subjects of the news can also increase the chances of selective exposure to prevail (Dutta-bergman, 2004; Stroud, 2008; Sunstein, 2002).

The occurrence of selective exposure is not only dependent on the content of the information in terms of its subject and tonality, but also on psychological and context factors (Karlsson, Loewenstein, & Seppi, 2009; Sedereviciute & Valentini, 2011; Stroud, 2008). Selective exposure occurs in cases where people's media selection is guided by their beliefs though some beliefs might me more likely to guide this selection than others. Selective exposure may be particularly inspired by political and societal engaging topics of the information (Valentino et al., 2015). According to Stroud (2008), certain constructs are chronically accessible to people, which means that the chance that they are used as a basis to process information is more likely. This chronic accessibility can derive from different sources; personally relevant information such as political and societal information can foster media selection and the processing of information. Previous studies have shown that beliefs that are personally relevant and related to an individual's self-interest or ethnic-/cultural identity, are likely to influence decisions (Stroud, 2008; Dutta-bergman, 2004). Also, individuals derive greater utility from positive information that is in line with their self-interest, ethnic-/cultural identity or the identity they attach to the environment they live in (Knobloch & Francesca, 2005). This means that people most likely prefer to read information that matches their perspective on diversity in society since that information confirms their own positive perspective. Selective exposure to information can in this way be seen as a function of social utility. Social variables are important when predicting selective exposure since this exposure can be motivated by the capacity of the information to provide social utility over solving internal problems, such as reducing cognitive dissonance (Knobloch & Francesca, 2005; Valentino et al., 2015). Topics and beliefs that inspire an affective response may also stimulate selective exposure to information. Individuals may expose themselves to certain information to obtain or maintain a certain desired emotional state in which their perception of the environment they live in is not altered (Stroud, 2008; Valentino et al., 2015). This involvement with a certain societal engaging subject or issue is found to be positively associated with seeking information that is related to that subject or issue (Dutta-bergman, 2004). Argued from a cognitive perspective, beliefs that are personally relevant are more readily activated from one's memory and are therefore more likely to

guide one's thoughts and actions (Stroud, 2008; Sunstein, 2002). In this way, they can guide an individual's choice of news.

What this evaluation of the selective exposure theory implies regarding the diversity approaches, is that people are likely to search for diversity perspective confirming information; Individuals with a multicultural perspective would look for more multicultural oriented news articles and individuals with a colorblind perspective would look for more colorblind oriented news articles. The selective exposure theory is encouraged by the information environment online. The vast options individuals have online for multicultural and colorblind news articles does not eliminate the selective exposure theory. Thus, the internet would make it easier for people to read opinion reinforcing news articles. Hence, the following hypotheses are proposed:

H1a: Individuals with a strong multicultural perspective choose to read more multicultural news articles than colorblind news articles.

H1b: Individuals with a strong colorblind perspective choose to read more colorblind news articles than multicultural news articles.

#### 2.3 Reinforcing or changing existing attitudes in closed information systems online

As hypothesized in the previous section about the selective exposure theory in an online news media environment, people are predicted to prefer reading the news that is in line with their pre-existing perspective on diversity and that the internet allows people to search more rigid for opinion reinforcing information. In this section, there will be elaborated further on how the internet has changed people's news consumption and the implications of these changes for people's perspective on diversity. First, the notion of the possible polarizing effects of the online news environment for diversity perspectives is discussed. After that, the notion of bias in the online news environment and what this means for people's diversity perspectives is discussed.

#### 2.3.1 Polarization as a result of the online news environment

The allegation against Facebook of having influenced the 2016 United States Presidential elections by spreading fake news through their highly-personalized newsfeed is a discussion about the influence of constant unilateral biased news circulating on the internet. Even though individuals have a lot of control over the online news they read, just a few online news media consumers choose the articles they read entirely at random because of the internet's capacity to manage information flows (Duttabergman, 2004; Tewksbury & Rittenberg, 2008). The internet's capacity to manage information flows causes worries in societies about the possible decrease in exposure to diverse viewpoints due to these

technologies. A decreasing exposure to different viewpoints is associated with more extreme attitudes over time and will increase polarization (Valentino, et al., 2015; Bakshy et al., 2015; Garrett, 2009). According to Sunstein (2002), two principal mechanisms lie at the basis of polarization of opinions and perspectives in societies; the first mechanism emphasizes the importance of social influences on an individual's behaviour and the second stresses the importance of limited 'argument pools' and the extreme directions in which they lead individuals. When considering online news as a factor in the polarization of perspectives on diversity, Sunstein's theory would not support arguments that stress the polarizing effect of online news. This because social influences that can direct people info extreme directions take place in the physical environment of individuals instead of online. Also, instead of limited argument pools, online news offers a big 'argument pool'. As a result of the abundance of news information available online individuals can opt out of information from different points of view. These mechanisms suggest that deliberation suppresses polarization but the question remains if discussion indeed helps to discourage polarization.

The management of information flows and circulation of constant biased news is a result of the closed information systems online such as echo chambers (Burns Melican & Dixon, 2008). The internet creates an environment, one that is different from the environment of traditional media, in which it is easy for individuals to read information that reinforces their existing perspective on diversity as mentioned in the previous section. Research has proven that the internet creates so-called echo chambers that reinforce established opinions and perspectives which makes it harder for individuals to read about opposing viewpoints (Dutta-bergman, 2004; Sunstein, 2002; Vaccari, 2013). The online echo chambers create individual filter bubbles due to the algorithms of search engines that make use of individual's search history to target the content the individual has been looking for earlier on (Schulz & Roessler, 2012). These filter bubbles resemble the limited 'argument pool' as theorized by Sunstein (2002). In this way, the actual big 'argument pool' of information available online is not fully visible and easily attainable. Not everyone is aware of the existence of these filter bubbles and their implication for the full potential of the information environment online. In this situation, people don't take advantage of the diversity of news and available information online since they are led towards the same sort of information that might even have the same tonality or perspective (Vaccari, 2013). Readers are presented with information online that is similar to the information they previously searched for or clicked on. The perspective of the new information readers are presented with is most probably in line with the reader's existing perspective. In this way, readers become overexposed to that perspective and underexposed to opposite perspectives. The ability for individuals to customize their news diet online and the direction they are being pushed in by the internet, which is specified by their own customizations, will lead to decreasing exposure to diverse viewpoints. This is consistent with the argument that technological developments will narrow rather than widen people's perspective on society (Holbert et al., 2010).

As already mentioned, a decreasing exposure to different viewpoints is associated with more extreme attitudes over time and will increase polarization (Valentino, et al., 2015; Bakshy et al., 2015; Garrett, 2009). The current structure of online media might create an environment in which discourses are driven by echo chambers that over time amplify collective prejudices (An, Quercia, & Crowcroft, 2013; Bakshy et al., 2015; Holbert et al., 2010; Vaccari, 2013; Dutta-bergman, 2004). The following hypotheses imply the polarizing and perspective amplifying effect of reading news online and the decreasing exposure to different viewpoints due to the internet:

H2a: Reading multicultural news articles will lead to a stronger multicultural perspective than reading colorblind or neutral news articles.

H2b: Reading colorblind news articles will lead to a stronger colorblind perspective than reading multicultural or neutral news articles.

#### 2.3.2 Attitude reinforcement due to biased news online

To have influence on the reader's opinion and to create more extreme attitudes over time it seems necessary for news to imply a certain bias. Though in the 21st century in the Netherlands extreme multiculturalis or colorblind perspectives are not expressed explicitly and in a structural matter by the news media, news almost always contains a diversity bias (Boomgaarden & Vliegenthart, 2007, 2009). When news is biased, the dominant perspectives have influence on an individual's readiness to categorise other groups of people (Burns Melican & Dixon, 2008). According to previous research, bias in news is said to reinforce already existing attitudes (Burns Melican & Dixon, 2008; Gentzkow & Shapiro, 2005; Slater, 2007). This latter does not necessarily mean that people are influenced by bias in news when their initial perspective is different than the news article's perspective. This is because people interpret and process the information they are presented with along their pre-existing meaning structures (Burns Melican & Dixon, 2008; Gentzkow & Shapiro, 2005). If the bias doesn't match people's prepositions about the topic, they will reflect on the information that is provided rather than let it influence their pre-existing perspective, as the selective exposure theory also endorses (Gentzkow & Shapiro, 2005; Tewksbury & Rittenberg, 2008; Vasterman et al., 2005; Schultz & Roessler, 2012). News with a bias that does match people's predisposition is therefor expected to work perspective reinforcing. The repetitive nature of online news on people's perspective on diversity is due to the filter bubbles that are created by online mechanisms. The structural repetition and growing time-consuming unilateral biased information due to these mechanisms can amplify existing perspectives. When individuals are highly involved with the topic of the news they read and the dissemination of the news medium is high they can even interpret the information as hostile towards their own perspective when it is actually neutral and balanced. This phenomenon is called the

'hostile media effect (Schultz & Roessler, 2012). In this case, the inexistence of a perspective doesn't lead to a change in perspective but rather a confirmation of an individual's already existing perspectives. It is important to acknowledge the reciprocal inherent characteristics of the selectivity of online news and the effects of online news to understand the relationship between the two. However, the notion of reciprocity can also be misleading and does not necessarily have to imply a causal relationship. Previous studies have shown that audiences rely more on their own perspective, their own version of reality, that is constructed from personal experiences, their interaction with other people and their own interpretation of news, even when the news they read is not in line with their presumptions (Scheufele, 1999; Shapiro et al., 2005; Sunstein, 2002). As mentioned, closed information systems of the internet in which people are often presented with information that matches their previous clicks can possibly create an environment that is attitude reinforcing (Slater, 2007). Thus, when people consume biased information that doesn't match their existing attitudes their attitudes will not change due to their own interpretation of this information, but when people consume biased information online time and time again that matches their attitudes, this might work reinforcing and people might develop a stronger perspective (Boomgaarden & Vliegenthart, 2009; Slater, 2007; Vaccari, 2013). The analysis made in this sub-chapter implies that the closed information systems online can work attitude reinforcing when people are repeatedly presented with news that supports their perspective on diversity. When we apply these theories to the perspective on diversity the following hypothesis will be researched:

H3a: Spending more time reading multicultural news will lead to a stronger multicultural perspective and a less strong colorblind perspective.

H3b: Spending more time reading colorblind news will lead to a stronger colorblind perspective and a less strong multicultural perspective.

The literature reviewed so far has helped our understanding of the meaning of the two diversity perspectives (multiculturalism and colorblindness), the selective exposure theory in relationship to online news and the influence of biased online news on individual's diversity perspectives and the possibilities for polarization. In the following chapter, the methods with which the hypotheses which are formulated in this chapter (H1, H1a & H1b, H2a & H2b, and H3a & H3b) are tested will be explained.

#### 3. Method

This Chapter explains the methodology that was used for this research which exists from two experiments. First, the sampling methods that were used for both experiments are explained (3.1). After that, the development of the experimental materials and the websites that are used for the experiments are explained (3.2). In the sub chapters following, Experiment 1 (3.3) and Experiment 2 (3.4) are described separately including their procedure and design, an explanation of the methods and analyses chosen to answer the accompanying hypotheses.

In order to answer the research question '' *How does online news influence diversity perspectives in the Netherlands?*'' a quantitative method is used. The hypotheses outlined in the theoretical section will be tested by means of two separate experiments. The first experiment tested the hypotheses H1, H1a, and H1b. The second experiment tested the hypothesis H2a, H2b, H3a, and H3b. An experimental research design matches the research question because with experiments the usage of online news can be manipulated and its connection to an individual's perspective on diversity can be established and analysed (Bryman, 2012). The use of experiments for this study will provide more insight in particular effects of the manipulated variables (Bryman, 2012).

#### 3.1 Sampling method

The same sampling method was used for Experiment 1 and Experiment 2 and therefor this subchapter will explain the sampling method for both methods as one. This study about the influence of online news on people's diversity perspectives needed a diverse sample in multiple ways, of which diversity in age, education and cultural-/ethnic background were the most substantial. Previous research has shown that access and usage of online news vary among people with a different educational background, socioeconomic status, and age (Dixon, 2008; Mitchelstein & Boczkowski, 2009). A variety in age and education was important for this study because these variables could potentially influence the subject's political and societal affiliation and their usage of online news in terms of the articles they chose to read and the time they spent reading online news (Dixon, 2008). Also, variety in age and education can provide variety in diversity perspectives because these people are maybe from a different socioeconomic status and possibly live in a different cultural environment (Jansen et al., 2015). Diversity in the subject's cultural-/ethnic background was also substantial for the sample of this study because this could also provide variety in diversity perspectives since people from minority groups might perceive diversity in society differently from majority group members (Stevens et al., 2008). Variance in diversity perspectives was essential for this study since a comparison between subjects with different diversity perspectives needed to be established to be able to answer the research question and hypotheses.

To participate in the experiments the subjects were required to be above the age of 18 and to be Dutch. This to make sure they understood all the information in the experiment properly and because the language used in the experiments was Dutch. The subjects were approached on a personal and on a general level via several online channels to participate in either of the two online experiments (see Table 3.1). This study used purposive sampling of heterogeneous instances and stratified random sampling to obtain a variety in the subjects' diversity perspective, age, gender, and educational background (Shadish & Cook, 2002; Lynch, 2008). The researcher attempted to reach people from all socioeconomic statuses by making a call for participation on different public and closed online platforms and additional subjects were approached in a personal way at community centres to ensure a greater variety in cultural-/ethnic diversity of the sample.

Table 3.1 Sampling channels personal- and general level

Personal level	General level
Personal messages via Facebook	Facebook groups (for example RSM Students, USBO
	Alumni, JSVU, Voordaan Hockey, Utrechtse Studenten
	Hockey, PVV aanhangers, Marokkanen bijeen, Turken in
	Nederland, Christelijke jongeren, De jonge Turken,
	Nederland is mijn land, POW Ned and Strijd tegen racism)
Personal email (to current and old employers, colleagues,	LinkedIn (message shared by colleagues and their
old internship connections and student associations).	connections)
Community centres in Utrecht	Comment sections websites/online news pages
	(www.joop.nl, www.hpdetijd.nl, www.elsevier.nl,
	frontpage.fok.nl and www.dedagelijksestandaard.nl)

The subjects were assigned either to Experiment 1 or to Experiment 2, the latter existing from three different treatments, through random assignment that occurred by clicking on one of the hyperlinks provided by the researcher (Shadish & Cook, 2002). 95 Subjects participated in Experiment 1 and 149 subjects participated in Experiment 2 of which. A subject's participation in one of the two experiments only counted as valid when the subject completed both elements of the experiment and read news articles for at least two minutes. The latter is chosen as a requirement for valid participation to ensure the subject executed the instructions of the experiment in the correct way. 75.8% (N = 72) of the subjects who participated in Experiment 1 and 85.9% (N = 128) of the subjects who participated in Experiment 2 finished the entire experiment and spent at least 2 minutes reading articles on the news page, which is in line with the requirements for a sample by Bryman (2012). The subjects assessed and participated in the experiment on their own time. The voluntary basis on which the subjects participated in the experiment can be relevant for the results since these subjects might be more societally engaged or have different motives for participating in the experiment than others who didn't participate.

Relevant control variables for this study were gender, age, educational background, the subjects' frequency of usage of online news and their ethnic-/cultural background, as shown in Table 3.2.

Table 3.2 Sample Experiment 1 & Experiment 2

Experiment 1 $(N = 72)$			Experiment 2 $(N = 128)$			
	N	%		N	%	
Gender			Gender			
Male	33	45.8	Male	55	43	
Female	39	54.2	Female	73	57	
<b>Age</b> (M = 36.4, SD = 15.3)			<b>Age</b> (M = $37.6$ , SD = $14.7$ )			
18 – 25 years	30	41.7	18 – 25 years	30	41.7	
26 – 35	13	18.1	26 – 35	13	18.1	
36 – 45	6	8.3	36 – 45	6	8.3	
46 – 55	9	12.5	46 – 55	9	12.5	
56 – 65	12	16.7	56 – 65	12	16.7	
65 – max.	2	2.8	65 – max.	2	2.8	
<b>Educational background</b>			Educational background			
High school	4	5.6	High school	3	2.3	
MBO	13	18.1	MBO	21	16.4	
НВО	28	38.9	НВО	46	35.9	
University	27	37.5	University	58	45.3	
Ethnic-/cultural background			Ethnic-/cultural background			
Western	53	73.6	Western	95	74.2	
Non-western	19	26.4	Non-western	33	25.8	
Frequency reading online news			Frequency reading online news			
Never	1	1.4	Never	1	0.8	
Once a month	5	6.9	Once a month	4	3.1	
Once a week	6	8.3	Once a week	14	10.9	
2 – 6 times a week	19	26.4	2 – 6 times a week	37	28.7	
Daily	41	56.9	Daily	72	56.3	

#### 3.2 Development of experimental materials

This sub-chapter explains the development and operationalization of the concepts and materials that are used in the experiments. Both experiments are built up out of two parts: a questionnaire about the subject's perspective on diversity and a fictive online news page. The implementation of both

elements in the different experiments is explained in Chapter 3.3 (Experiment 1) and 3.4 (Experiment 2). Both experiments were online experiments and were accessible to the subjects via a hyperlink.

#### 3.2.1 Diversity questionnaire

The questionnaire used to measure the variable 'perspective on diversity' is derived from the original questionnaire developed by Ryan, Hunt, Weible, Peterson and Casas (2007). This questionnaire is used by many scholars in studies about diversity and intergroup perception in society and in the workspace and is a validated measurement scale (Plaut, Thomas, & Goren, 2009; Richeson & Nussbaum, 2004; Ryan, Hunt, Weible, Peterson, & Casas, 2007; Vasta, 2007; Wolsko, Park & Judd, 2000). The scale consists of eight items in total of which eight statements four items are intended to estimate multiculturalism and the other four are intended to estimate the colorblind perspective (see Table 3.3). In the questionnaire as used in the experiments, the subjects were asked to indicate the extent to which they believed the statements would help to reduce the ongoing discussion in society about ethnic- and cultural differences. The way the statements were formulated was slightly changed from the original statements by Ryan et al. (2007) to ensure the subjects would understand their intent (see Table 3.3 for the original and the used statements). In the statements as used in the experiment 'cultural-/' was added to ethnic groups to include the presence of different cultural groups in society as well. Also, the original statements were in English so an accurate Dutch translation was used in the experiment. Ryan et al. (2007) used a 7-point Likert scale for the questionnaire. In this study, a 5point Likert scale was used with the ratings 1 ('not likely to decrease the discussion in society) to 5 ('likely to decrease the discussion in society'). A screenshot of the questionnaire in Experiment 1 (this exact same questionnaire and layout were used in Experiment 2) is added in Appendix A.

To establish the reliability and internal consistency of the constructs multiculturalism and colorblindness the Cronbach's alpha analysis was executed for both separate constructs. According to numerous scholars, the Cronbach's alpha is considered acceptable for most research purposes when it is above .7. The Cronbach's alpha for the 4-item multiculturalism scale of the diversity perspective questionnaire in Experiment 1 and in Experiment 2 was .71. This can be considered adequate for research purposes. A closer examination of the questionnaire item-total indicates that alpha would not increase if any item was removed. The Cronbach's alpha for the 4-item colorblindness scale of the diversity perspective questionnaire in Experiment 1 was .72, and .71 in Experiment 2. Which is also adequate for research purposes and the alpha would not increase if any item was removed.

Table 3.3 Items on the diversity perspective measurement scale. (Ryan et al., 2007)

Perspective on diversity items by Ryan et al.	Perspective on diversity items as used in this	Experiment 1		Experiment 2	
(2007)	study		SD	M	SD
	Multicultural items				
Adopting a multicultural perspective	We should assume that the society is multicultural	3.97	.73	3.97	.87
Recognizing that there are differences between	We should recognize that there are differences	3.9	.65	3.91	.65
ethnic groups.	between ethnic-/cultural groups				
Emphasizing the importance of appreciating	It is important to appreciate group differences	3.15	.85	3.28	.96
group differences between ethnic groups.	between ethnic-/cultural groups in society				
Accepting each ethnic group's positive and	We should accept each ethnic-/cultural group's	3.53	.73	3.33	.99
negative qualities.	positive and negative qualities				
	Colorblind items				
Judging one another as individuals rather than	We should judge one another as individuals rather	4.03	.9	3.87	.78
members of an ethnic group.	than members of an ethnic-/cultural group				
Recognizing that all people are basically the same	We should recognize that all people are the same	4.21	.89	3.78	.87
regardless of their ethnicity	regardless of their ethnicity/cultural background				
Recognizing that all people are created equally	We should recognize that all people are created	3.9	.94	3.56	.91
regardless of their ethnicity.	equally regardless of their ethnicity/cultural				
	background				
Adopting a colorblind perspective in which one's	We should judge each other as individuals rather	2.89	1.0	3.09	.85
ethnic group membership is considered unimportant.	than as members of a certain ethnic-/cultural group				

#### 3.2.2 Fictive online news pages – multicultural and colorblind articles

In total four different fictive online news pages were developed to measure the subjects' online news usage. Three fictive news pages contained news articles with topics related to cultural diversity in society (specifically, one news page with an equal amount of multicultural- and colorblind news articles, one news page with only multicultural- and one news page with only colorblind articles) and one fictive news page contained neutral news articles. The latter is explained in Chapter 2.2.3 (*Fictive online news page – neutral articles*). The fictive online news pages all consisted of news articles that were recent and retrieved from the Dutch online news websites as shown in Appendix B.

All articles were under the umbrella theme of 'diversity' and had topics related in any way to diversity in the Dutch society. The selection of the news articles was based on the theories about the diversity perspectives as mentioned in the theoretical framework. Table 3.3 shows the characteristics used to detect and select the news articles for the two diversity perspectives. To make sure the articles used in the experiments indeed embodied the intended diversity perspectives they were adapted and exaggerated if necessary to fit the multicultural or colorblind perspective.

On the main news page of all three websites, only the headlines of the articles were shown. The display on an entering of a news page should have a substantial impact on which articles news consumers read and ignore (Knobloch-westerwick & Johnson, 2014). To already imply the tonality of the articles it was essential for the headlines to express the intended diversity perspective so the subjects would already be exposed to the intended diversity perspective throughout the entire fictive news page. Thus, it was essential for the headlines to express the intended diversity perspective because the subjects had to base their selection of news articles on those headlines. An example of a headline that was changed and exaggerated for the fictive news page to express the (in this case colorblind) perspective is an article about the Dutch politician Sylvana Simons. The original headline as published on www.delimburger.nl on 02-28-2017 was as follows (translated into English from Dutch): Sylvana Simons about Artikel1: 'We pledge for fundamental equality of all people'. This headline implies a positive attitude on equality but the remainder of the article is more focussed on the repetitive nature of Simons' attempts to bring equality of people from different racial and cultural backgrounds under the attention. The tone of the article is sceptical towards Sylvana Simons' argument and the newspaper journalist makes the statement with his questions that equality is already achieved in Dutch society and that hence, her arguments are abundant. When looking at the literature and the characteristics as shown in Table 3.3 it is apparent that the article implies the idea of an inclusionary society in which group differences are not an issue, which is a match with the colorblind characteristic in which there is a seemingly tolerant tone and denial of exclusion in society (Jansen et al., 2015, 2016; Plaut et al., 2011; Stevens et al., 2008; Vasta, 2007). The denial of racism and existing group differences hints subtle towards a colorblind tone and fits the colorblind characteristics. Therefore, the headline as shown on the online news page in the experiment was: 'Sylvana digs up old skeletons with debate about ethnic profiling'. This adapted headline implies the colorblind tone of the article. In some cases, parts of the content of the articles on the fictive news website were changed or exaggerated as well to ensure the presence of the aimed diversity perspective. Most multicultural news articles that were used emphasized the benefits and positive outcomes of diversity within organizations and authorities such as the government, police and in education. Most colorblind news articles emphasized the importance of the Dutch unity and the Dutch identity as a whole instead of the existence of groups in society through the importance of Dutch traditions and morals and values. Some colorblind articles also included a subtle denial of existing different groups and a denial of structural racism in society that occurs on the streets, in the workspace and in politics. The diversity

perspectives as portrayed in the articles are in line with the theories discussed in Chapter 2.2 and the characteristics mentioned in Table 2 (Jansen et al., 2015, 2016; Plaut et al., 2009; Richeson & Nussbaum, 2004; Stevens et al., 2008; Vasta, 2007).

In order to determine the reliability of the diversity perspectives in the articles used on the fictive news pages, all articles were pilot tested to detect possible errors in the interpretation of the news articles with regards to the diversity perspectives they embodied. An advantage of conducting a pilot test is that it could give an advance warning about where the experiment could be misunderstood, where the instructions are too complicated or the variables are insufficient (Van Teijlingen & Huntley, 1998; Bryman, 2012). In this study, the pilot test served to improve the internal validity of the online news usage and with that the diversity perspectives in the articles. The pilot test was conducted by eight test-subjects, varying in gender, age and educational background, via a hyperlink provided by the researcher and was administered exactly in the same way as in the final study. At first, the test-subjects were asked for feedback on how they perceived the news articles in terms of their tonality about diversity in society. Secondly, they were shown Table 3.3 and were asked to label the articles 'multicultural' or 'colorblind' along the characteristics of the diversity perspectives. Along an assessment of the feedback, the articles were revised. The pilot test was repeated twice to ensure adjustments based on the outcome of the first pilot test covered the detected errors and to ensure face validity (Van Teijlingen & Huntley, 1998; Bryman, 2012). A limitation of the usage of these news articles is that they are based on a concept of multiculturalism and colorblindness that is only constructed from the articles used in this study, while there might exist other interpretations and descriptions of multiculturalism and colorblindness that are not incorporated in this study.

#### 3.2.3 Fictive online news page – neutral articles

The fourth online news page consisted of ten articles about completely random topics varying from the arrival of panda's in the Netherlands, the possibilities of production and consumption of seaweed to the challenges ahead of Dutch athlete Dafne Schippers. A requirement for the articles used in the experimental condition was that they could not address the topic of diversity in society in any way, not implicit or explicit, and therefor they would not be able to influence the subjects' diversity perspective through their content. The articles used for this fictive online news page were, the same as the other fictive online news pages, recent and retrieved from Dutch online news websites as shown in Appendix B. On the main news page of this website also only the headlines of the articles were shown (Knobloch-westerwick & Johnson, 2014).

Table 3.3 Characteristics of diversity perspectives in news articles.

Multicultural characteristics	Colorblind characteristics
Differences between cultural-/ethnic and religious groups and	Differences between cultural-/ethnic and religious groups
group identities are recognized	and group identities should be ignored
Emphasis on benefits of diversity in society	People should be treated as individuals rather than as
	members of cultural-/ethnic and religious groups
Emphasis on the strengths of different cultural-/ethnic and	Sees society as a melting pot
religious groups	
Positive attitude towards minorities in society	Has an exclusionary character towards minority groups in
	society
Differences between cultural-/ethnic and religious groups and	Connection with the ideals of equality, individualism,
group identities are celebrated	meritocracy and assimilation
Challenges the dominant power structures in society	A denial of the existence of structural and ideological
	racism in society
	Failure to acknowledge the negative effects for minorities
	due to ignoring group differences
	Stronger racial bias which is linked to interpersonal
	discrimination among minorities
	Seemingly tolerant while there is a lot of exclusion

(Jansen et al., 2015, 2016; Plaut et al., 2009, 2011; Stevens et al., 2008; Vasta, 2007)

#### 3.3 Experiment 1

- How does selective exposure to online news apply in regards to diversity perspectives in society? This sub-chapter contains information about the procedure (*Chapter 3.3.1*) of Experiment 1, the measures used (*Chapter 3.3.3*) and the analysis (*Chapter 3.3.5*) of Experiment 1. Experiment 1 is now accessible at the following web address: https://lisannebeijen.wixsite.com/onderzoek1.

#### 3.3.1 Procedure Experiment 1



Figure 3.1. Structure Experiment 1

Subjects who participated in Experiment 1 were redirected to the online experiment via a hyperlink provided by the researcher. The first page of the experiment included information about the subject's participation. On this page, they were informed that the experiment was part of a Master's Thesis at the Erasmus University of Rotterdam, that their participation was completely voluntarily, anonymous

and that the collected data would not be provided to third parties and thus would only be used for the purpose of this study. Moreover, this page gave a small introduction into the structure and the nature of the study.

After reading this short introduction and terms and conditions of the experiment the subjects could enter and start the online experiment on the second page which contained a survey that was used to estimate the subject's multicultural and colorblind perspective. The survey was accompanied by a short explanation about its use that stated that the subjects should indicate per statement in how far they agreed that these statements would help to decline the discussion in society about ethnic-/cultural differences. The statements were presented in a random order so the subjects would not be able to detect their context and intent. To be able to continue to the remaining part of the experiment it was required to answer all eight statements.

The second part of Experiment 1 was introduced on the next page. The second part of Experiment 1 existed from a fictive online news page which contained twelve news articles. On this introduction page of the second part of the experiment, the subjects were instructed to scroll through the news page for five minutes and to click on and to read the articles that marked their interest. Six of the articles on the news page had a multicultural perspective and six of the articles had a colorblind perspective. A click on one of the headlines on the main news page forwarded the subject to the accompanying news article. After the five minutes, they were instructed to go through to the last part of the experiment.

The final part of the experiment, the last page of the website, contained a form with questions about the subject's demographics. After filling in this form their participation to the experiment was reported and finalized.

#### 3.3.2 Measures Experiment 1

The dependent variable 'choice of news' was measured on the fictive online news page. This fictive online news page was used as a tool to test the selective exposure theory as debated in Chapter 2.2 of this study and serves as a simulation of an online news landscape in which consumers are presented with different opinions and can choose between different news media content (Bakshy et al., 2015; Dutta-bergman, 2004; Tewksbury & Rittenberg, 1998). According to the selective exposure theory, as mentioned in Chapter 2.2, subjects were expected to read the news articles that matches their perspective on diversity. The fictive news website helped to test if the exposure to different news articles and the independence in choosing what kind of news to read lead to an increase or decrease in opinion reinforcement (Bakshy et al., 2015; Dutta-bergman, 2004; Valentino et al., 2015). The headlines of the in total six multicultural and six colorblind articles were shown alternately on the main news page to avoid pushing the subjects in a certain direction and thus to exclude possible influence of these external factors (Bryman, 2012; Shadish & Cook, 2002). Measurement of the

dependent variable 'choice of online news' was performed along the analytics of the server the online experiment was created on. A computed code in the JavaScript of the server allowed insight into the paths the subjects individually followed in the online experiment and in on the fictive online news page. The following data was reported: The time the subject spent reading each article in seconds, the number of multicultural- and/or colorblind articles the subject chose to read and whether the subject read more multicultural- or more colorblind articles based on the time spent reading the articles. The variable 'choice of online news' was in the analysis thus based on the cumulative amount of seconds the subjects spent reading their selection of multicultural- and colorblind articles. Overall, 46 percent (N = 33) of all subjects chose to read more multicultural news articles with an average of M = 73 seconds, and 54 percent (N = 39) read more colorblind articles with an average of M = 97 seconds.

In order to ensure the successful manipulation of the news articles, containing a certain diversity perspective, a control question was placed on the final page and thus the final part of the experiment, along with the questions about the subjects' demographics. The subjects were asked what the nature of the topics of the news articles they've read was. The options given were 'diversity in society', 'completely random topics' and 'I don't remember'. The collected data of the subjects who didn't answer 'diversity in society' was not used for the analyses in this study. Of all subjects, n = 80, 90% noticed the topics of the news articles were about diversity in society, which left n = 72 subjects that were used for the analysis of Experiment 1.

The adapted diversity perspective questionnaire by Ryan et al, (2007) measured the independent variable 'diversity perspective' (see Table 3.3 for the used statements).

#### 3.3.3 Analysis of Experiment 1

All data that is used in this study was collected via the server on which the online experiments were hosted and the analyses were executed with SPSS Statistics. The data that was gathered from the diversity perspective questionnaires and of the usage of the fictive online news page was all coded and transferred into SPSS by hand. The data was cleaned and subjects who didn't finish or spent too little time on the fictive online news page were removed from the dataset (N = 23). After that tests for normality and reliability analyses were conducted for the independent variable 'diversity perspective'.

Multiple regression analyses (MRA) are conducted to examine the hypotheses H1, H1a and H1b and to answer Experiment 1's research question. Multiple regression is a measurement towards prediction and is used to measure how well criterion variable 'choice of online news' can be predicted, with a linear combination of predictor variables under the name 'diversity perspective' (Allen & Bennett, 2010). The independent variable 'diversity perspective' was measured, as explained in Chapter 3.2.1 (Diversity questionnaire), as two separate constructs: Multiculturalism and colorblindness. The dependent variable 'choice for online news' was measured as the amount of seconds the subjects read multicultural and colorblind articles. In the dataset in SPSS and in the

analyses, the variable 'choice for online news' was divided into two separate variables, respectively, 'time spent reading multicultural articles' and 'time spent reading colorblind articles'. In this way, the dependent variable could be treated as a continuous variable and was suitable for a multiple regression analysis.

Four separate MRA's were conducted. Two analyses tested the relationship between the dependent variable 'time spent reading multicultural articles' and the independent variable 'diversity perspective' and the same two analyses were conducted using 'time spent reading colorblind articles' as the dependent variable. Two separate variables were created to measure 'diversity perspective' and were used for the analyses: the mean of the multicultural construct and the mean of the colorblind construct. Since there were no missing values (the subjects were required to answer all statements in the diversity perspective questionnaire) it was possible to calculate the mean of both constructs to form variables as in accordance with Aiken and West (1991). The control variables gender, age, educational background and ethnic-/cultural background were included in the regression analysis in order to control for the variable 'choice of news' and were included in the 'independent' section of the analysis.

#### 3.4. Experiment 2

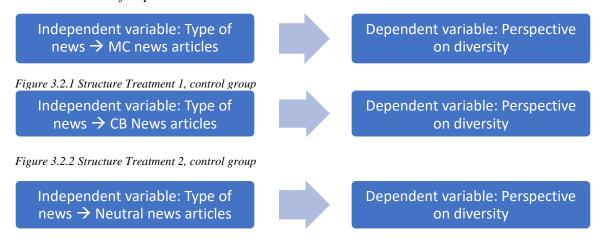
- What is the effect of reading biased unilateral online news on people's diversity perspectives? This sub-chapter contains information about the procedure (*Chapter 3.4.1*) of Experiment 2, the conducted measures (*Chapter 3.4.2*) and an explanation of the analyses used (*Chapter 3.4.3*). The three different treatments of Experiment 2 are now separately available via the following web addresses:

Multicultural Treatment: https://lisannebeijen.wixsite.com/onderzoek2mc

Colorblind Treatment: https://lisannebeijen.wixsite.com/onderzoek2cb

Neutral Treatment: https://lisannebeijen.wixsite.com/onderzoek2r

#### 3.4.1 Procedure of Experiment 2



Experiment 2 was built up out of three different treatments: the multicultural treatment, the colorblind treatment or the experimental treatment. Subjects who participated in this study were redirected to either Experiment 1 or to one of the three treatments of Experiment 2 via a hyperlink provided by the researcher so they were unaware of the existence of the different treatments. The multicultural and colorblind treatments served as control groups and the experimental treatment served as the manipulation in this experiment. In the randomized experiment of Experiment 2, or so-called 'true experiment', the independent variable was deliberately manipulated and the dependent variable was assessed (Shadish & Cook, 2002). The experimental research design allowed to control the news that the subjects got to see very precisely and therefor made it possible to measure differences in the subject's perspectives on diversity as a subject to different treatments. This facilitated the researcher to make relatively well-founded statements about the causal effects of the usage of online news (Bryman, 2012).

All three treatments had the same structure and layout but had different news articles on their fictive news page. The first page of all three treatments of Experiment 2 was identical to the first page used in Experiment 1 (see Chapter 3.3.1 *Procedure Experiment 1*). After reading this first page the subjects could enter and start the online experiment on the second page which contained instructions about the usage of the fictive online news page and time instructions. The instructions were the same as the news page instructions for Experiment 1 (see Chapter 3.3.1). The news page that followed contained ten news articles of which the content of the articles differed between the three treatments; all the articles on the news page had either only a multicultural or a colorblind bias, or were about completely random and neutral topics (see Chapter 3.2.2 and 3.2.3 for the development of the news articles).

The second part of Experiment 2 existed from a questionnaire that was used to estimate the subject's multicultural and colorblind perspective. This questionnaire and the accompanying instructions were the exact same as the ones used in Experiment 1 (see Chapter 3.3.1). The final part of the experiment, the last page of the website, contained a form with questions about the subject's demographics and was identical to the last page used in Experiment 1. After filling in this form their participation to the experiment was reported and finalized.

#### 3.4.2 Measures

The variables that were measured in Experiment 2 were the independent variables 'online news' and the dependent variable 'diversity perspective'.

To measure the independent variable 'online news' (used for H2a and H2b) and 'time spent reading news' (used for H3a and H3b) information about the subjects' behaviour on the fictive news website was gathered via the online experiments' websites' analytics. To test the hypotheses H2a,

H2b, H3a and H3b which assume a perspective amplifying effect due to biased online news, an experimental setting was created in which the subjects were overexposed to one diversity perspective. Treatment 1 and treatment 2 of Experiment 2 were the control groups and treatment 3 was the experimental treatment and served as the manipulation check (see Figures 3.2.1, 3.2.2 and 3.2.3). These fictive online news pages were used as a tool to simulate the closed information systems online and an online news environment in which people but are presented with unilateral information. A computed code in the JavaScript of the server allowed insight into the paths the subjects individually followed in the online experiment and in the fictive online news pages. For each article the subject selected, the time the subject spent reading the article was reported in seconds. The analysis of the variable 'online news' was based on the group the subject was divided in, one of the two control groups (with either multicultural- or colorblind news articles), or the experimental group (with random news articles). The analysis of the variable 'time spent reading news' was based on the time the subject's spent reading multicultural, colorblind or random articles. In the final SPSS dataset, new variables were computed to be able to evaluate all data within the groups and between the groups.

Treatment 3 served as the manipulation in which the dependent variable 'online news' was manipulated. The manipulation was necessary to ensure that any observed effects were restricted to the particular diversity perspective biases as processed in the news articles of treatment 1 (multicultural control group) and treatment 2 (colorblind control group) (Bryman, 2012). Specifically, the experimental group was presented with a fictive news page with ten articles about completely random topics and that were neutral. If the subject's diversity perspective was reinforced and amplified by the online news they read, as is hypothesized, then the manipulation should make no difference for the subject's perspective on diversity.

In order to ensure the successful manipulation in Experiment 2, a control question was placed in the final part of the experiment, along with the questions about the subjects' demographics. This was the same question as used in Experiment 1 (see Chapter 3.3.2 *Measures Experiment 1*). Of the subjects assigned to treatment 1, n = 45, 91% noticed the news articles were about diversity in society, which left n = 41 subjects that were used for the analysis. Of the subjects in treatment 2, n = 49, 90% noticed the news articles were about diversity in society, which left n = 44 subjects that were used for the analysis. Of the subjects assigned to treatment 3, n = 46, 93% noticed the topics of the news articles were completely random, which left n = 43 subjects that were used for the analysis.

The adapted diversity perspective questionnaire by Ryan et al, (2007) measured the dependent variable 'diversity perspective' (see Table 3.3 for the used statements). This is the same questionnaire as used in Experiment 1. The questionnaire is the second part of Experiment 2 and is positioned after the fictive online news page to be able to detect changes in the perspectives of the subjects after being a subject of one of the three treatments, and to compare the subjects' diversity perspectives as a subject to the different treatments.

#### 3.4.3 Analysis

The analyses of the data that is collected for this study are executed with SPSS Statistics. The data gathered from diversity perspective questionnaires and of the usage of the fictive online news pages were all coded and transferred into SPSS by hand. The data was cleaned and tests for normality and reliability analyses were conducted on the independent variable 'online news' and 'time reading online news'.

To examine the hypotheses H2a and H2b, two one-way between groups ANOVA analyses are conducted to detect if there are differences between the diversity perspectives of the subjects in the three different treatments and thus if the treatments might have a perspective amplifying effect. The one-way between groups ANOVA is a measurement suitable to test for statistically significant differences between the independent sample means of three or more independent samples (Allen & Bennett, 2010). The ANOVA is used to analyse differences between the two control groups and the experimental group, and their diversity perspective. The first ANOVA measured the differences between the multicultural perspectives within the three different treatments and the second ANOVA measured the differences between the colorblind perspective within the three different treatments.

The independent variable 'online news' existed from the three different independent samples (the three different treatments), respectively, 'multicultural news', 'colorblind news' and 'neutral news'. Two separate variables were created to measure the dependent variable 'diversity perspective': the mean of the multicultural construct and the mean of the colorblind construct. Since there were no missing values (the subjects were required to answer all statements in the diversity perspective questionnaire) it was possible to calculate the mean of both constructs in the same way as for the diversity perspective variable in Experiment 1. The control variables gender, age, educational background and ethnic-/cultural background were included in the ANOVA in order to control for the variable 'diversity perspective'.

To examine the hypotheses H3a and H3b, three simple regression analyses were conducted to detect if there are differences between the diversity perspectives of the subjects after spending more time reading unilateral biased news. To answer these hypotheses a comparison of the subject's multicultural- and colorblind perspective diversity perspectives within the treatment has to be made instead of a comparison between the subjects of the different treatments. Therefore, one regression analysis for each treatment will test if the time the subject's spent reading the biased unilateral news of the treatment they were in influenced their diversity perspective. The simple regression analyses were used to test if there are more people with a significant multicultural- or colorblind perspective after spending more time reading the corresponding multicultural or colorblind news articles. Regression is a measurement towards prediction and is used in this experiment to measure how well

criterion variable 'diversity perspective' can be predicted, with a linear combination of predictor variables under the name 'time reading online news' (Allen & Bennett, 2010). The independent variable 'time spent reading online news' was constructed, as explained in Chapter 3.4.4 (Measures), from three different treatments: multicultural news, colorblind news and random news. This variable is reported in seconds and is a continuous variable. The dependent variable 'diversity perspective' was used, as explained in Chapter 3.4.4 Measures, as two separate perspectives namely multiculturalism and colorblindness which is a continuous variable.

Since the subjects only participated in the experiment once, in one treatment, new variables were constructed in SPSS for the dependent as well as the independent variable. This enabled the researcher to categorize the subjects and to use their data for the correct separate treatment group regression analysis so the analysis would exclude subjects from the other treatments. For each treatment sample, two separate variables were created to measure 'diversity perspective' and were used for the analyses, namely the mean of the multicultural construct and the mean of the colorblind construct.

#### 4. Results

In this Chapter, the results of the statistical analyses that were conducted to test the hypotheses H1, H1a and H1b, H2a and H2b and H3a and H3b are presented. The analysis of each experiment and its hypotheses are reported in a separate sub-chapter. The sub-chapters with the separate experiments and corresponding hypotheses are structured according to their order of sequence in the theoretical framework and method chapter.

# 4.1 Experiment 1 (H1, H1a & H1b)

# 4.1.1 Multicultural perspective and choice for online news

Two multiple regression analyses (MRA) were used to analyse the proportion of variance in the choice for online news that can be accounted for by the multicultural diversity perspective and two MRA's were used to analyse the proportion of variance in the choice for online news that can be accounted for by the colorblind diversity perspective. Prior to interpreting the results of four the MRA's, several assumptions were evaluated. A reasonable ratio of cases to predictors is secured with N = 71 and two predictors, namely the *multicultural perspective* variable and *colorblind perspective* variable. According to Tabachnick and Fidell (2007), this assumes medium-sized effects. The assumption of normality was tested via an examination of the unstandardized residuals. A review of the skewness (-.304) and kurtosis (.267) statistics of the continuous variable *multicultural perspective* suggested this variable was approximately normally distributed. A review of the skewness (-1.912) and kurtosis (-.496) statistics of the continuous variable *colorblind perspective* suggested this variable was approximately normally distributed. Appendix C shows the scatterplots that provide evidence of homogeneity of variance and the normal P-P plots that suggest that the assumptions of independence and linearity have been met.

The regression model of the choice of multicultural news as the dependent variable, and the multicultural perspective as the independent variable was non-significant (see Table 4.1). This means that the multicultural perspective does not account for any differences in the choice for multicultural news. The control variables age, gender, educational background and ethnic-/cultural background accounted for an additional significant 15.1% of the variance in multicultural perspective ( $R^2 = .151$ ). The relationship between the variable 'educational background' and the choice for multicultural news was significant with  $\beta = -.289$ , t = -2.383, p = .02, 95% CI [-40.46, -4.91]. Thus, the subject's educational background is associated with the choice for multicultural news (Figure 4.1). The lower the subjects educational background, the less multicultural news they read.

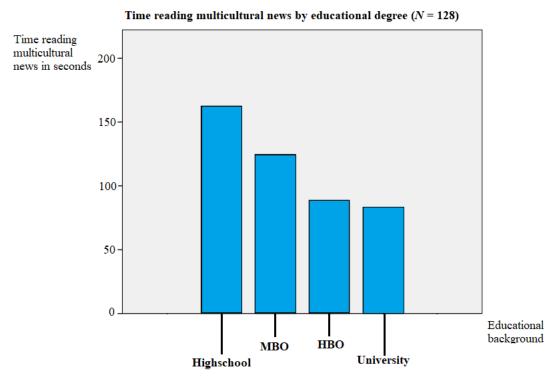


Figure 4.1Negative relationship educational background and choice for multicultural news

The regression model with the choice for colorblind news as the dependent variable and the multicultural perspective as the independent variable was non-significant. This means that the multicultural perspective on itself does not account for any differences in the choice for colorblind news. As shown in Table 4.1, the control variables age, gender, educational background and ethnic-/cultural background accounted for an additional non-significant 11.3% of the variance in multicultural perspective ( $R^2 = .113$ ), which means that there is no relationship between the control variables and the choice for colorblind articles.

# 4.1.2 Colorblind perspective and choice for online news

The following two MRA's were performed to estimate the proportion of variance in the choice for online news that can be accounted for by the colorblind diversity perspective. The regression model of the choice of multicultural news as the dependent variable and the colorblind perspective as the independent was non-significant. The choice for multicultural news accounted for non-significant 2% of the variability in the multicultural perspective (Table 4.1). Thus, the colorblind perspective does not account for any differences in the choice for multicultural news.

In addition to the dependent variable choice for multicultural news, the control variables age, gender, educational background and ethnic-/cultural background were added to the equation, and accounted for a significant additional 15.1% of the variance in the colorblind perspective ( $R^2 = .151$ ). The relationship between the variable 'educational background' and the choice for multicultural news was significant with  $b^* = -.292$ , t = -2.465, p = .02, 95% CI [-40.46, -4.91]. This means that the subject's educational background is associated with the choice for multicultural news (Figure 4.1).

The regression model of the choice of colorblind news as the dependent variable and the colorblind perspective as the independent variable non-significant. This means that the multicultural perspective on itself does not account for any differences in the choice for colorblind news.

Apart from the dependent variable choice for colorblind news, the control variables age, gender, educational background and ethnic-/cultural background were added to the equation, and accounted for a significant additional 11.1% of the variance in the colorblind perspective ( $R^2 = .111$ ). The relationship between the variable 'age' and the choice for colorblind news was significant with b\* = -.259, t = -2.006, p = .049, 95% CI [-1.85, -.00]. This means that the subject's age is associated with the choice for colorblind news (Figure 4.2).

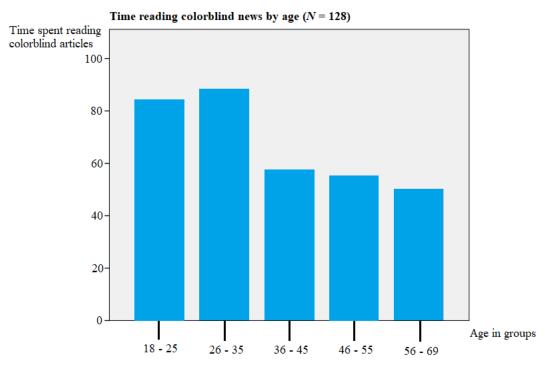


Figure 4.2 Negative relationship age and choice for colorblind news

The four conducted MRA's detected no relationship between the multicultural perspective and choice for multicultural news and between the colorblind perspective and the choice for colorblind online news. This means that H1, H1a and H1b are not supported. The analyses did detect negative relationships between 'multicultural news' and 'educational background'; the higher the subject's

educational level, the less time they spent reading multicultural news. Also, a negative relationship between 'colorblind news' and 'age' was detected; the higher the subject's age, the less time they spent reading colorblind news articles. Concluding on the hypotheses and Experiment 1's research question can be stated that when choosing online news there is no selectivity based on the diversity perspectives.

# 4.2 Experiment 2 (H2a, H2b & H3a, H3b)

4.2.1 A comparison between two control treatments and one experimental treatment (H2a & H2b)

To test if there are statistically significant differences in the diversity perspectives of independent sample means of the two control groups and experimental group, two one-way between groups ANOVA is conducted. The ANOVA will help to indicate whether differences between the three groups can be assigned to the treatment they received. The results of both ANOVA analyses are displayed in Table 4.2.1, 4.2.2, 4.3.1 and 4.3.2. Prior to conducting the ANOVA, several assumptions were evaluated. The dependent variable diversity perspective had a suitable ratio measurement scale which fits with the ANOVA analysis. Each subject only participated once in either of the three experimental treatments. The assumption for normality was tested via an examination of the unstandardized residuals. A review of the skewness (.813) and kurtosis (.162) statistics of the multicultural treatment suggested this group was approximately normally distributed. The skewness (-1.143) and kurtosis (1.755) of the colorblind treatment suggested that this group was also approximately normally distributed, the same as the group in the random treatment (experimental group) with good scores for the skewness (-1.25) and kurtosis (1.495).

The first conducted ANOVA examined whether there were statistically significant differences in the multicultural perspective of the independent sample means of the two control groups and the experimental group. For this analysis, Levene's was non-significant, F(2,125) = .365, p = .695. The ANOVA was non-significant, indicating that the subject's multicultural perspectives were not influenced by the treatment they received and thus the different types of news they've read (Table 4.2.1 & 4.2.2). Post hoc analyses with Tuckey's HSD (using an  $\alpha$  of .05) revealed that there were no significant differences between the multicultural perspectives of subjects with a different age, gender, educational background and ethnic-/cultural background.

The second conducted ANOVA examined whether there were statistically significant differences in the colorblind perspective of the independent sample means of the two control groups and the experimental group. For this analysis, Levene's was non-significant, F(2,125) = .521, p = .595.

Table 4.1 Predicting choice for news from diversity perspective, gender, age, educational- and ethnic-/cultural background (Experiment 1)

		Multicultur	al perspectiv	e		Colorblind perspective				
Variable	B [95% CI]	B [95% CI] $\beta$ sr <sup>2</sup> t Sig. (p)		B [95% CI]	β	$Sr^2$	t	Sig. (p)		
Multicultural news	2.514 [-26.096, 31.098]	.021	.000	.175	.861	12.773 [-9.719, 35.265]	.134	.018	1.133	.261
Gender	17.369 [ -15.126, 49.865]	.133	.015	1.068	.29	17.899 [ -14.133, 49.931]	.137	.016	1.116	.268
Age	.057 [-1.01, 1.123]	.013	.000	.106	.916	.142 [923, 1.207]	250	.00	-2.465	.791
Educational background	-22.685 [-40.46, -4.91]	289	.086	-2.383	.02*	-21.579 [-40.46, -4.91].	292	.079	081	.016*
Ethnic-/cultural	-18.39 [29.367, 34.506]	-1.66	.026	1399	.167	-17.842 [-43.819, 8.136]	161	.024	-1.372	.175
background										
	R	$^2 = .021$ , adj	usted $R^2 =0$	14		$R^2 = .018$ , adjusted $R^2 = .004$				
Colorblind news	4.711 [-19.945, 29.367]	.021	.00	.225	.823	-1.275 [-20.244, 17.695]	016	.00	134	.894
Gender	-21.033 [ -48.849, 6.784]	193	.032	-1.511	.136	-21.764 [-49.464, 5935]	20	.034	-1.57	.121
Age	891 [-1.804, .022]	250	.053	-1.949	.056	0.925 [-1.847,004]	259	.00	-2.006	.049*
Educational background	615 [-15.831, -14.6]	289	.00	081	.936	-1.454 [-16.576, 13.669]	024	.079	192	.848
Ethnic-/cultural	-25.06 [-52.397, 2.278]	421	.068	-1.831	.072	-24.62 [-51.74, 2.5]	414	.046	-1.814	.074
background										
	$R^2 = .00$ , adjusted $R^2 =014$				$R^2 = .000$ , ad	ljusted $R^2 =0$	014			

*Note:* N = 72, CI = Confidence interval, \* p < .05. \*\* p < .01

The ANOVA was non-significant, indicating that the subject's colorblind perspectives were not influenced by the treatment they received and with that the different types of news they've read (Table 4.3.1 & 4.3.1). Post hoc analyses with Tuckey's HSD (using an  $\alpha$  of .05) revealed that there were no significant differences between the colorblind perspectives of subjects with a different age, gender, educational background and ethnic-/cultural background.

The hypotheses H2a and H2b are not supported by the results of the analyses. The two ANOVA analyses indicate that reading multicultural news does not lead to a more multicultural diversity perspective than when reading colorblind- or neutral news, and that reading colorblind news does not lead to a more colorblind diversity perspective than when reading multicultural- or neutral news. The type of news has no influence on the subject's perspective on diversity.

*Table 4.2.1 Mean multicultural perspective by type of online news (Experiment 2, H2a & H2b)* 

		Multicultura	l perspective		
				95% Confid	ence Interval
	Sample Size	Mean	SD	Lower Limit	Upper Limit
Multicultural news	41	3.55	.69	3.33	3.77
Colorblind news	44	3.64	.60	3.45	3.88
Random news	43	3.68	.65	3.48	3.74

*Note: N* = 128

Table 4.2.2 ANOVA Summary for multicultural perspective mean of the different treatments

	M	ulticultural p	erspective		
	df	SS	MS	F	p
Between groups	2	.375	.187	.447	.639
Within groups	125	52.125	.417		
Total	127	52.5			

*Note:* N = 128. \*p < .05. \*\*p < .01

Table 4.3.1 Mean colorblind perspective by type of online news (Experiment 2, H2a & H2b)

		Colorblind	perspective		
				95% Confid	ence Interval
	Sample Size	Mean	SD	Lower Limit	Upper Limit
Multicultural news	41	3.55	.69	3.33	3.77
Colorblind news	44	3.64	.60	3.45	3.88
Random news	43	3.68	.65	3.48	3.74

*Note:* N = 128

Table 4.3.2 Summary for colorblind perspective mean of the different treatments

		Colorblind pe	erspective		
	df	SS	MS	F	p
Between groups	2	1.231	.616	1.569	.209
Within groups	125	48.214	.386		
Total	127	49.445			

*Note:* N = 128. \* p < .05. \*\* p < .01

# 4.2.2 Three separate MRA's: the effect of the time reading biased online news on diversity perspectives (H3a & H3b)

Three simple regression analyses were conducted to test if there are more people with a significant multicultural- or colorblind perspective after spending more time reading the corresponding multicultural or colorblind news articles. These regression analyses were used to estimate the proportion of variance in the multicultural- and colorblind perspective that can be accounted for by the time spent reading biased news. For all three treatments, of which the multicultural treatment and colorblind treatment as control groups and the neutral treatment as the experimental groups, two regression analyses are conducted that measured the time spent reading news within the treatment separately with both the multicultural- and colorblind diversity perspective. First, the analysis of the multicultural treatment is reported, followed by the results of the colorblind- and neutral treatment.

### 4.2.2.1 Multicultural treatment

Prior to interpreting the results of the regression analyses, several assumptions were evaluated. The assumption of normality was tested via an examination of the unstandardized residuals. A review of the skewness (0.813) and kurtosis (0.162) statistics of the continuous variable *multicultural* 

perspective suggested this variable was approximately normally distributed in the multicultural treatment. A review of the skewness (-1.206) and kurtosis (0.059) statistics of the continuous variable colorblind perspective suggested this variable was approximately normally distributed in the multicultural treatment. A relatively random display of points in the scatterplot of the multicultural perspective against the values of the independent variable multicultural perspective provided evidence of homogeneity of variance and suggests that the assumption of independence has been met. The normal P-P plot of the choice for multicultural news and the multicultural perspective indicated that the assumption of linearity is met, as the choice for multicultural news increases, multicultural perspective generally increases as well (see Appendix C). Also, the Shapiro-Wilk indicates that the assumption of normality is not violated with W = .964 with Sig. = .221 for the multicultural perspective and W = .967 with Sig. = .286 for the colorblind perspective. The same analyses that provide evidence of homogeneity of variance, independence and linearity are conducted for the colorblind and the neutral treatment. Their accompanying scatterplots and normal P-P plots can also be found in Appendix C.

The regression model of multicultural perspective (as the dependent variable) and multicultural news (as independent variable) was significant. Reading multicultural news accounted for a significant 15.6% of the variability in the multicultural perspective,  $R^2 = .156$ , adjusted  $R^2 = .134$ , F(1,39) = 7.184, p > 0.05. These results show a positive significant correlation between reading multicultural news and the multicultural perspective with  $b^* = .394$ , t = 2.68, p > .05, 95% CI [.001, .007]. This means that reading multicultural news is associated with the multicultural perspective the significant correlation is positive which means that the more time the subject's spent reading multicultural news, the stronger their multicultural perspective. This effect size is considered small with  $f^2 = 0.02$ . The unstandardized (B) and standardised ( $\beta$ ) regression coefficients, and squared semipartial correlations (sr2) for each predictor in the regression model, of all regression analyses, are reported in Table 4.4. The regression model of colorblind perspective (as the dependent variable) and multicultural news (as independent variable) was significant. Reading multicultural news accounted for a significant 21% of the variability in the colorblind,  $R^2 = .21$ , adjusted  $R^2 = .19$ , F (1,39) = 10.353, p > 0.05. These results show a positive significant correlation between reading multicultural news and the colorblind perspective with  $b^* = .458$ , t = 3.218, p > .05, 95% CI [.001, .006]. This means that reading multicultural news is associated with the colorblind perspective. The significant correlation is positive which means that the more time the subject's spent reading multicultural news, the stronger their colorblind perspective. This effect size is considered small with  $f^2 = .05$ .

These two analyses show that reading multicultural news accounts for significant differences in the multicultural perspective and reading multicultural news accounts for significant differences in

the colorblind perspective as well. The more time people spent reading multicultural news, the stronger their multicultural and their colorblind perspective gets.

#### 4.2.2.2 Colorblind treatment

Prior to interpreting the results of the MRA's, several assumptions were evaluated. The assumption of normality was tested via an examination of the unstandardized residuals. A review of the skewness (-1.143) and kurtosis (1.755) statistics of the continuous variable *multicultural perspective* suggested this variable was approximately normally distributed in the colorblind treatment. A review of the skewness (-2.193) and kurtosis (0.736) statistics of the continuous variable *colorblind perspective* suggested this variable was approximately normally distributed in the colorblind treatment.

The regression model of multicultural perspective (as the dependent variable) was statistically non-significant (see Table 4.4). The regression model of colorblind perspective (as the dependent variable) and colorblind news (as independent variable) was also non-significant (see Table 4.4). These results show that reading colorblind news is not associated with the multicultural perspective nor is it with the colorblind perspective. Spending more time reading colorblind news didn't make people's colorblind perspective or multicultural perspective stronger.

#### 4.2.2.3 Neutral treatment

The neutral treatment is used as a manipulation to check for the consistency on the dependent variable 'diversity perspective' by the independent variables 'multicultural news' and 'colorblind news'. Prior to interpreting the results of the regression analyses, several assumptions were evaluated. The assumption of normality was tested via an examination of the unstandardized residuals. A review of the skewness (-.92) and kurtosis (-.243) statistics of the continuous variable *multicultural perspective* suggested this variable was approximately normally distributed in the random treatment. A review of the skewness (-2.125) and kurtosis (.495) statistics of the continuous variable *colorblind perspective* suggested this variable was approximately normally distributed in the random treatment.

The regression model of multicultural perspective (as the dependent variable) was statistically non-significant. This means that reading random news is not associated with the multicultural perspective (see Table 4.4). The regression model of colorblind perspective (as the dependent variable) was also statistically non-significant (see Table 4.4).

Hypothesis H3a is supported by the results of the analyses: spending more time reading multicultural news accounts for significant differences in the multicultural perspective. Hypothesis H3b is not supported by the results which means that spending more time reading colorblind articles has no influence on the colorblind diversity perspective. The non-significant results of the experimental group show that spending more time reading neutral news articles has no influence on both diversity

perspectives. An interesting result is that spending more time reading multicultural news causes a stronger colorblind perspective.

With regard to Experiment 2's research question, there can be concluded that there is no difference in the diversity perspectives of people that read different types of news. Only spending more time reading multicultural news strengthens the multicultural- as well as the colorblind perspective.

Table 4.4 Predicting diversity perspective from multicultural, colorblind and neutral news (Experiment 2, H3a & H3b)

		Multicu	ıltural nev	vs			Colorblin	d news				Random	news		
Variable	B [95% CI]	β	Sr <sup>2</sup>	t	Sig. (p)	B [95% CI]	β	sr <sup>2</sup>	t	Sig. (p)	B [95% CI]	β	sr <sup>2</sup>	t	Sig. (p)
Multicultural perspective	.004 [.001, .007]	.349	.122	2.69	.011*	001[004, .002]	14	.02	916	.365	.001 [001, .004]	.187	.035	1.216	.231
	R <sup>2</sup> =	= .156, ad	djusted <i>R</i> <sup>2</sup> :	= .134		$R^2 = .$	02, adjuste	ed <i>R</i> <sup>2</sup> = -	.004		$R^2 = .0$	035, adjus	ted <i>R</i> <sup>2</sup> = .	.011	
Colorblind perspective	.004 [.001, .006]	.458	.21	3.218	.003**	.00 [003, .004]	.009	.00	.061	.952	.001 [001, .003]	.139	.019	.901	.373
	R <sup>2</sup>	c = .21, as	djusted R <sup>2</sup> :	= .19		$R^2 = .$	00, adjuste	ed <i>R</i> <sup>2</sup> = -	.024		$R^2 = .0$	119, adjust	ted <i>R</i> <sup>2</sup> = -	.005	

*Note:* n = 128. CI = Confidence interval

<sup>\*</sup> *p* <. .05, \*\* *p* < .01

#### 5. Conclusion

The influence of news on people's opinions and their perspectives on society has been a topic of debate for decades. The decreasing audiences for traditional news media and the fast increase in popularity of online news media have brought renewed interest in the question about the influence of news on people in the online news environment (Vasterman et al., 2005). Public debates, mostly expressed online, often touch upon the possibilities for online news media to polarize opinions and groups in societies. Even though the Netherlands is an alleged and self-proclaimed tolerant country, a recurring polarizing topic that causes a lot of debate in the Dutch society is cultural diversity. A study into the exposure to and usage of online news regarding cultural diversity in society can try to explain the influence of online news on the sensitive and polarizing topic of cultural diversity in society (Boomgaarden & Vliegenthart, 2007, 2009; Dutta-bergman, 2004; Li et al., 2011; Valentino et al., 2015; Vasterman et al., 2005). It is important to understand people's news consumption online and its effects in order to understand the position of online news in modern day societies. The implications of people's preferences for opinion and perspective reinforcing information and/or an aversion to information that challenges their perspectives are notably different in the online environment. The increasing choice in information and news online creates the possibility that people will look for those articles that reinforce their current perspectives which will increase social fragmentation of groups in society. This is associated with polarization and the development of more extreme attitudes about diversity in society over time (Bakshy et al., 2015; Garrett & Garrett, 2014; Valentino et al., 2015). An aversion to information with a certain tonality or the exclusion from this information due to the closed information systems online may produce more extreme attitudes and deeper convictions as well (An et al., 2013.; Holbert et al., 2010; Vaccari, 2013).

The present study examined the role of selective exposure and the influence of news in an online environment on diversity perspectives in the Netherlands. An experimental research design was used to create an accurate and complete depiction of the online news media effect process. Two separate online experiments were conducted in which both the selectivity of news online and the effects of online news were to be analysed. The results that derive from this study provide a sound, two-fold message about individuals usage of online news in relationship to their diversity perspectives and the influence of online news on their perspectives on diversity. First, this study suggests that people don't search for opinion reinforcing information online that corresponds to their perspective on diversity. This is in contrast with prior interpretations of the selective exposure theory since the data of this study demonstrates that reading news online is not influenced by one's perspective on diversity. Second, this study also examined the effect of unilateral biased news in the online news environment. The results suggest that when individuals are only exposed to unilateral biased news their perspectives will only amplify after reading multicultural news. The two suppositions this study

set out with, namely support for the selective exposure theory online in relationship to individuals' diversity perspectives, and the support for the perspective reinforcing mechanisms of online news due to its unilateral character and repetitive nature, were not met; people don't seek for diversity perspective confirming news online and are not influenced by online biased news about diversity in society. The empirical findings as presented in the previous chapter lend support for only some of the hypotheses of this study which will be further elaborated on in this chapter. The implications, limitations and suggestions for future research will be discussed below.

# 5.1 Selective exposure to news online

Contrary to expectations (H1, H1a & H1b), the analyses exhibit very clearly that there is no relationship between the perspective on diversity and the choice for online news. The accompanying hypotheses were built on several theories which stated that the internet decreases the likelihood that consumers are exposed to diverse news and opinions because individuals will only look for those online news articles and information that reinforces their current perspectives (Bakshy et al., 2015; Garrett & Garrett, 2014; Valentino et al., 2015). This usage of the online news environment with its abundance of news information, in which infinite choices don't narrow people's selectivity, was supported by several scholars who question the functionality of the selective exposure theory in an online context (Holbert et al., 2010; Knobloch-westerwick & Johnson, 2014; Knobloch & Francesca, 2013). The theory of people's diversity perspective and its relationship to selective exposure to news was expected to be supported by the vast amount of choices online and the importance of involvement and an individual's self-interest or ethnic-/cultural identity when choosing a subject or issue (Duttabergman, 2004; Stroud, 2008). Against expectations, the results show that the advocators of the first camp which emphasizes the likelihood that in an online environment people are actually more exposed to diverse viewpoints, are right. The interpretation of the results is linked to the use of the idea of 'active choice' in this study. The selective exposure theory states that the act of active choice online would, hypothetically, lead to greater selectivity and less diversity in the consumption of information. However, the results of this study show the opposite: people didn't actively choose the news that was in correspondence with their existing perspective on diversity. They, in fact, didn't actively avoid the news that wasn't in correspondence with their perspective on diversity. The possibility to choose news leads to a diverse choice for news with different diversity perspectives; People make use of the full potential of the online news environment in which multiple perspectives are presented and do not exclude perspective challenging news. An analysis of the discussed theories and these results show support for the first camp that actually states that the internet increases the opportunity for people to be exposed to diverse news. The results show that people make full use of the information environment created by the internet that exists out of information with all sorts of tonalities when it comes to cultural diversity in society. People's willingness to expose themselves to

this diverse news about cultural diversity can nourish more understanding of different perspectives and their effects on majority and minority groups in society. It can possibly help the mutual understanding of the existing groups in society and their ability to learn more about unfamiliar perspectives to be exposed to news that embodies different perspectives (Bawden & Robinson, 2009; Burns, 2005). Choices for online news are not directed by diversity perspectives and thus people don't have a bigger tendency to read articles that are in line with their own diversity perspective. The fact that there has not been an agreement on the functionality of the selective exposure theory in an online context is supported by these results.

The results did show that the lower people's educational background, the more often they choose to read multicultural news. The influence of educational background shows that an individual's choices that do lead to exposure to one diversity perspective do not have to be motivated by opinion-based selectivity per se (Knobloch-westerwick & Johnson, 2014; Knobloch & Francesca, 2013). Decisions for news don't have to be related to ideology but can also relate to one's socioeconomical background of which in this case someone's educational degree. When elaborating on these findings and their meaning, the purport of the multicultural and the colorblind perspective should be further addressed. Members of minority groups in society are often more likely to enhance the multicultural perspective than members of majority groups (Jansen et al., 2015). Even though the results didn't show a relationship between the choice for news and people's ethnic-/cultural background, the relationship between educational background and the choice for multicultural news might have a connection with the existence of minority and majority groups in the Netherlands. The socio-economic environment people live in might differ between people with a higher- and a lower educational background. Dutch people with lower educational backgrounds could experience a more diverse environment through their studies, work and/or neighbourhood and could therefore potentially encounter people from different ethnic-/cultural backgrounds more often in their daily lives. People in this situation might be more interested to read about the for them recognizable and realistic diverse society and thus articles with multicultural subjects (Jansen et al., 2015, 2016). However, this does not imply that these people have a more multicultural or colorblind perspective as the results of this study have demonstrated. Accordingly, it is reasonable to assume that people's choices for more multicultural or more colorblind news are not moved by their diversity perspective but by other contextual factors. The results also showed the relationship between age and the choice for colorblind news; the younger the people, the more often they choose to read colorblind articles. Since this result was only found in one analysis, it is considered that age is only marginally related to people's choice for colorblind news and is therefore not substantiated.

Concluding there can be stated that selective exposure to online news does not apply in regards to diversity perspectives in the Netherlands. People make use of the possibility, offered by the

online information environment, to expose themselves to diverse viewpoints which enables possibilities for learning about the cultural structures that are present in the society they live in.

# 5.2 Polarization and attitude reinforcement of diversity perspectives

The results of the analyses H2a and H2b show that reading news online in a closed information system does not imply a polarizing effect on people's perspective on diversity. The three different experimental treatments provided the possibility to compare differences between the diversity perspectives of people reading multicultural, colorblind or random news. No differences were detected between these groups after reading biased or neutral news. This is in line with the theory about online news having limited effects on shifts in people's opinion (Boomgaarden & Vliegenthart, 2009; Holbert et al., 2010; Knobloch-westerwick & Johnson, 2014; Slater, 2007; Vaccari, 2013). That the overexposure to one perspective didn't increase polarization of people's diversity perspectives might be due to the fact that people process and evaluate the news they read along their pre-existing perspectives which means a certain bias does not lead to a stronger perspective in that bias's direction. The inexistence of a difference between the diversity perspectives of people reading biased culturally engaged news and neutral news shows that the inexistence of a bias in news has the same effect on people's diversity perspective as a more obvious unilateral bias in news, and thus emphasizes the theory of online news having limited effects. The findings in this study are consistent with the theories that state that people might not be influenced by news because they reflect the news information they are presented with on their own pre-existing perspectives (Scheufele, 1999; D. A. Scheufele & Tewksbury, 2007; Shapiro et al., 2005; Tewksbury & Rittenberg, 1998; Vasterman et al., 2005). These pre-existing perspectives can be constructed from external experiences and factors, not being the reading of online news about diversity. People can end up in a filter bubble that contains a more multicultural- or colorblind bias due to their online search and click behaviour and can find themselves in a personalized and filtered news environment. However, in contrast with the assumptions made in this study, they don't seem to increase the chances of polarizing opinions on cultural diversity in society. Because people use the offline filter bubble they live in, that exists out of all kinds of social and environmental factors, as a reference. Through this offline filter bubble their ideas about cultural relationships in society are more likely to be influenced (Garrett, 2009; Holbert et al., 2010).

Whether these findings are actually substantial, or an artefact of the choice of diversity perspective as a dependent variable is debatable. The result of this analysis can be linked to the fact that diversity perspectives were used as the dependent variable to measure the influence of online news. Even though the measurement scale for diversity perspective used was proven to be reliable and valid and, the questionnaire still required the honest and non-softened opinion of the subjects about how they perceived diversity in society on a personal level.

The perspective amplifying effect of spending more time reading online news was not entirely as expected. More people had a multicultural perspective after reading multicultural news (H3a) which supports the theory about how decreasing exposure to different viewpoints is associated with the developments of more extreme attitudes over time (An et al., 2013; Bakshy et al., 2015; Duttabergman, 2004; Garrett, 2009; Holbert et al., 2010; Vaccari, 2013; Valentino et al., 2015). The same effect was expected for the colorblind perspective after spending more time reading colorblind news, however, this was not observed and therefor hypothesis H3b was not supported. This indicates that the perspective amplifying effect of spending more time reading news with a certain bias, does not apply in the same way to all types of biases. Spending more time reading colorblind news didn't have an effect on either of the diversity perspectives but spending more time reading multicultural news did have an effect on both of the diversity perspectives; it accounted for stronger multicultural perspectives as well as for stronger colorblind perspectives. Since the multicultural- and colorblind fictive online news page both consisted of an equal amount of news articles and information, and thus both represent the same sort of limited argument pool, the inexistence of information does not seem a likely explanation for the differences between the influence of these two types of news (Sunstein, 2002). The influence of the time spent reading unilateral biased news doesn't seem to be a result of any type of cultural bias in general, but creates specific interest in the apparent influence of the time spent reading multicultural news.

For an interpretation of the detected relationship between spending more time reading multicultural news and the stronger multicultural- and colorblind perspective, we turn to literature about the influence of the type of bias of online news on people's opinions and the agenda-setting function of online news (Dixon, 2008; Burns Melican & Dixon, 2008; Wanta et al., 2004). These are both arguments about the content and topics of the online news. What the agenda-setting function of news implies regarding these results is that for people to be able to be influenced in any direction, they first need to be activated to think about the topic of diversity in society. Biased news is said to have an influence on people's readiness to categorize other groups of people, only this readiness has to be activated first by the awareness of the topic of cultural groups and cultural diversity in society (Dixon, 2008; Burns Melican & Dixon, 2008). The diversity perspective that makes the existence of different ethnic- and cultural groups in society visible and a subject of matter, and with that has the ability to amplify any diversity perspective, is the multicultural perspective. It is a possibility that the multicultural bias in the news articles influences people's readiness to categorize other groups of people, and with that reinforce their own diversity perspective, because the articles present the options in which you can categorize cultural groups in society almost literally. The explicitness of the subject 'diversity' in the multicultural articles might have had an 'agenda-setting' function in this study about the subject of cultural diversity in society, since the notion of diversity in society is inevitable from

these articles. The latter was different from the colorblind news articles; those ignored the existence of groups in society and therefore diversity in society was not a subject matter. Even though colorblind news implies a cultural bias, they lack an agenda-setting function because the cultural bias is present in a more implicit way. The biased ideas about diversity as in the multicultural news amplify, as shown from the analysis, in the direction the reader intends it to. This is in line with the 'agenda-setting' function of news as discussed by Wanta, Golan and Lee (2004) who stress that news doesn't tell people what to think but it does tell people what to think about. Argued from that theory, the polarization and amplification of diversity perspectives are not about the mere existence of bias in news but it is about naming the elephant in the room. This explicitness of the subject 'diversity' allows for people to associate the perceived information with their diversity perspectives. Colorblind news does not acknowledge diversity in society and preferably not shows the existence of cultural diversity in its articles and therefore doesn't encourage people to think about their opinion about this topic.

Concluding on Experiment 2's research question, there can be stated that the effect of reading biased unilateral online news on people's diversity perspectives depends on the type of bias and the structural repetitive nature of unilateral news consumption. While the colorblind bias doesn't influence people's diversity perspectives an important finding is that multicultural biased news doesn't only strengthen people's multicultural perspective but that it activates people's readiness to formulate an opinion in any direction.

The findings of Experiment 1 and 2 combined offer important insights about the influence of online news on people's diversity perspectives. A comprehensive and concise conclusion to the research question of this study (*How does online news influence diversity perspectives in the Netherlands?*) is that people are not led by their diversity perspective in the online news they choose to read, and that a decrease in choices of culturally diverse online news does not lead to polarization of perspectives on diversity in society. Merely a repetitive online news consumption due to the online environment of news that explicitly embodies a multicultural perspective activates people to think about their pre-existing diversity perspective and has the ability to reinforce this pre-existing perspective.

The internet, with its infinite choices for news and filter bubbles that exist due to previous online search behaviour, does not narrow people's view on society since people are open to reading perspective challenging information online. It can be considered unfortunate that the closed information systems online don't always allow for people to be exposed to news with a wide range of perspectives especially when knowing they are open to perspective challenging information. Access to a wider range of information can help people to obtain a broader knowledge, and since people are not reluctant to news with a different diversity perspective the closed information systems online might limit their knowledge about the different perspectives on the society they live in. The latter not

meaning that their perspective would be altered by this perspective challenging information per se. People probably base their choice for news on something different than their diversity perspective. Also, their perspectives on diversity are supposedly influenced by other environmental, external and socio-demographic factors. It appears that reading online news and people's perspective on diversity don't have a strong connection either way around. Though the internet is capable of reinforcing perspectives through the repetitive nature of presenting news to audiences, this reinforcing ability is dependent on the type of bias in the news. This means that the internet's mechanism of presenting online news to audiences is not reinforcing per se.

The discussions in society about the influence of online news on people's opinion can't yet be shushed because new technologies do seem to push the boundaries of social changes in society. Just as traditional news, online news also seems to have an agenda-setting function at least when it comes to the topic of diversity in society which is even nourished by the repetitive nature of the online news environment. The agenda-setting function of the online news environment is something not everyone is aware of and is often confused with or accused to have an influencing function without any verification. The ability of the internet to meddle in people's perspective on diversity is an unpleasant reality and a popular assumption when looking at the ongoing discussion about the influence of the internet on people's perspective on diversity. This study provides no support for these assumptions. This study makes the cautious statement that the socially engaging topic of diversity in society is something that might be shaped the most by social interaction and real human spirits meeting, instead of unilateral biased news consumption on the internet. Even though people's choices for online news are more and more directed by the filter bubbles they are in, this study indicates that the human spirit still prevails over technology when it comes to people's opinions about the sometimes by technology directed news they are confronted with.

# 5.3 Discussion

This sub-chapter discusses the implications of this study and provides suggestions for future research.

Although this study doesn't provide sufficient support for the selective exposure theory online and the influence of both types of biased online news on people's diversity perspectives, responses appear to be driven by other external factors. When looking at the experimental design used to answer the research question some remarks can be made on the articles that were used on the fictive online news pages. First, not all news articles might have been equally interesting to the subjects participating in the experiments. Especially when looking at Experiment 1 where participants were forced to choose (unknowingly) between multicultural and colorblind articles, articles with the multicultural perspective might have been more interesting in terms of its subjects and topics than articles with the colorblind perspective. Second, the subjects might have already been familiar with the articles used in the experiment, or the topics discussed in the articles since they were retrieved

from existing popular Dutch news websites. Fore-knowledge or a premonition on the news articles might have discouraged their openness towards influence of these articles. And third, the fictive online news websites that were used represent an artificial situation of the mechanisms on online news websites that might deviate from a real-life situation.

The study assessed selective exposure to online news and opinion reinforcing mechanisms in online news with regard to diversity in society. The findings may not necessarily generalize the diversity perspectives in society in the same way. The influence of news is also difficult to generalize since this may differ between the usage of different sources and topics. Future research should consider research into which specific topics are prone to work reinforcing and/or influencing online. In this study, the insurance of internal validity went at the expense of external validity since there was no random sampling. Also, the fact that the subjects in this study only had limited time to read the online news may have encouraged certain selective behaviour different from a real-life situation.

Even though it is a highly challenging task to accurately predict the influence of online news based on people's perspectives, this study provides preliminary evidence that, to analyse the influence of biased online news, it is useful to take the users' overall involvement with the subject/topic into account and the environment they live in to make better assumptions about 'why' there are or aren't relationships observed. More experimental work is necessary to fully understand the causal relationship between online news and people's diversity perspective, and maybe even between selective exposure in particular and polarization. The implications of reciprocal relationships for the existing theories could use more research since the existing theories mainly focus on one direction of news consumption whereas new mechanisms shape news consumption in the online environment. It is obvious that further theoretical development is needed into the consumption of news online and its implications.

5.4 New technologies and old theories: a concluding remark on the activation of diversity perspectives in the online news environment

This study researched the influence of online news on people's perspective on cultural diversity in society. The results show that people are not influenced in their choice for online news by their diversity perspective, but people's socio-economic background and specifically their educational background is an important factor when predicting people's diversity perspective. Also, the type of news people read does not influence their diversity perspective. Only when people spent more time reading multicultural news, their multicultural perspectives, as well as their colorblind perspectives, got stronger. The latter can be linked to the agenda-setting function of news, in which confronting people with cultural diversity in society makes them think about this topic resulting in a perspective that is not necessarily linked to either one of the diversity perspectives. As Mark Zuckerberg stated, according to this study people indeed make decisions based on their lived experience when instead of

letting the news they read guide their decisions. When looking at the accusations made against Facebook about the influence of negative and colorblind news on their highly personalized platform and the alleged polarizing and fear-evoking effect of colorblind online news in general, this study shows that people should not fear for these effects. News that doesn't recognize the benefits of cultural diversity for societies does not change people's perspective on diversity, and hence people don't have to fear too much for the influence of negative, extreme and patriotic news. It is this negative, extreme and patriotic news in which the existence of cultural diversity is being ignored or trivialized, under which some of Donald Trump's statements that flood the internet during the US elections. Even though many critics of the news online news environment claim differently, this type of colorblind news that ignores or trivializes the existence of a different treatment of people with a diverse cultural background is less likely to consolidate extreme attitudes about cultural diversity in society than online news that emphasizes the existence of cultural diversity. People who don't agree with the image the online news media portrays about, for example, the cultural diversity of cities or refugee problems in their country, feel the dissonance with their own image on these topics and will be activated to shrug off this feeling of discrepancy. People don't mind reading about opposing viewpoints, the question about how they handle the confrontation with different viewpoints is the one that seems to matters most.

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# Appendix A

Screenshot of the diversity perspective questionnaire in Experiment 1. The same questionnaire is used in Experiment 2. Note: The questionnaire is in Dutch.

Dit deel van het onderzoek kost ongeveer 1 minuut.

In het nieuws zijn bijna dagelijks discussies te lezen die te maken hebben met verschillen tussen etnische/culturele groepen in de Nederlandse samenleving. Er zijn veel opvattingen over hoe er met deze verschillen moet worden omgegaan.

Geef hier onder per stelling aan in hoeverre u het er mee eens bent dat dit de discussie over etnische/culturele verschillen in de samenleving zal verminderen.

Wanneer u antwoord heeft gegeven op de onderstaande stellingen is het het belangrijk dat u op de BLAUWE KNOP onderaan de pagina kikt om uw antwoorden op de slaan. Dit kan pas wanneer u antwoord heeft gegeven op alle stellingen. Let op: U hoeft dus nog niet op de groene knop boven aan de pagina te klikken!

	Helemaal oneens	Mee oneens	Noch mee eens/onee	Mee eens	Helemaal eens
We moeten elkaar beoordelen als individuen in plaats van als onderdeel van een bepaalde etnische/culturele groep +					
lemands etnische-/culturele achtergrond is onbelangrijk+					
We moeten erkennen dat er verschillen zijn tussen verschillende etnische/culturele groepen in de samenleving •					
We moeten aannemen dat de samenleving multicultureel is •					
We moeten erkennen dat alle mensen gelijk zijn ongeacht hun etniciteit/culturele achtergrond •					
We moeten de nadruk leggen op het belang van verschillen tussen etnische/culturele groepen in de samenleving •					
We moeten positieve en negatieve kanten van verschillende etnische/culturele groepen accepteren •					
We moeten erkennen dat mensen allemaal het zelfde geschapen zijn ongeacht hun etniciteit/culturele achtergrond +					
Wat is uw leeftijd? (typ in getallen) *					

# Appendix B

The list of the news websites and link to the articles that were used for the development of the fictive online news pages.

News website	Link to the original article					
	Multicultural articles					
NU.nl	http://www.nu.nl/binnenland/4365757/niet-westerse-groepen-negatiever-					
	maatschappelijk-klimaat.html					
Volkskrant	http://www.volkskrant.nl/opinie/nederland-is-multi-etnisch-wen-eraan~a4309160/					
NU.nl	http://www.nu.nl/binnenland/4326819/parade-diversiteit-trekt-					
Metro	amsterdam.html?redirect=1					
	http://www.metronieuws.nl/nieuws/amsterdam/2016/09/duizenden-mensen-					
	lopen-parade-voor-diversiteit					
NU.nl	http://www.nu.nl/binnenland/4439643/politie-moet-prioriteit-maken-van-					
	diversiteit-binnen-organisatie.html?redirect=1					
Trouw	https://www.trouw.nl/religie-en-filosofie/bussemaker-wil-dat-studenten-					
	kennismaken-met-gematigde-islam~aabcbe87/					
Volkskrant	http://www.volkskrant.nl/opinie/wat-te-doen-tegen-xenofobie-en-					
	bangmakerij~a4311725/					
Elsevier	http://www.elsevier.nl/nederland/achtergrond/2016/12/regering-voelt-niets-voor-					
	anoniem-solliciteren-tegen-discriminatie-416655/					
NOS	http://nos.nl/artikel/2155983-een-op-de-negen-leraren-vermijdt-gevoelige-					
	onderwerpen.html					
NRC	https://www.nrc.nl/nieuws/2017/03/07/asielzoekers-uit-afghanistan-presteren-het-					
	best-op-school-a1549058					
Telegraaf	http://www.telegraaf.nl/binnenland/27425497/Diversiteit_boeit_militairen_niet					
	html					
NOS	http://nos.nl/artikel/2152718-militairen-zien-niets-in-voorkeursbeleid-bij-					
	defensie.html					
	Colorblind articles					
PowNed	https://www.powned.tv/artikel/edese-politiek-boos-op-gescheiden-sporten					

Trouw	https://www.trouw.nl/democratie/normaal-doen-het-motto-van-de-premier-van-
AD	nederland~aa9c2ed4/
	http://www.ad.nl/nieuws/normaal-doen-is-de-norm-die-we-moeten-
	uitdragen~a4fbbb0a/
AD	http://www.ad.nl/nieuws/respectloos-gedrag-op-straat-valt-best-mee~a9001a57/
Telegraaf	http://www.telegraaf.nl/binnenland/21270371/Tulpenkaasen_tolerantie html
Telegraaf	http://www.telegraaf.nl/binnenland/26029270/Wetsvoorstel_VNL_om_discrim inatiehtml
De Limburger	http://www.limburger.nl/cnt/dmf20161025_00027897/stop-die-onzin-zwarte-piet-is-zwart
Telegraaf	http://www.telegraaf.nl/binnenland/27239575/Integratie_gaat_goedkan_bete rhtml
HP de Tijd	http://www.hpdetijd.nl/2017-02-20/sensitivity-readers-racisme-literatuur-doorgeslagen-correctheid/
De Limburger	http://www.limburger.nl/cnt/dmf20170228_00036975/sylvana-simons-over-artikel1-wij-pleiten-voor-fundamentele-gelijkwaardigheid-van-mensen
Elsevier	http://www.elsevier.nl/nederland/achtergrond/2017/04/pvv-kamerlid-straatterroristen-met-betonscharen-hard-straffen-485179/
	Neutral articles
NOS	http://nos.nl/artikel/2167921-leuk-die-panda-s-maar-een-panda-effect-hebben-ze-in-belgie-niet-gezien.htmlLeuk
NOS	http://nos.nl/artikel/2168697-dafne-schippers-heeft-ongekend-groot-gat-te-dichten.html
RTL Nieuws	https://www.rtlnieuws.nl/nederland/dierenmishandeling-moeilijk-te-herkennen-
	een-dier-kan-heel-lang-dingen-accepteren
RTL Nieuws	https://www.rtlnieuws.nl/gezin/goede-eindtoets-kan-schooladvies-bijstellen-maar-dat-gebeurt-nog-te-weinig
Volkskrant	http://www.volkskrant.nl/economie/explosieve-groei-uber-drukt-zich-nog-niet-uit-in-cijfers-het-bedrijf-lijdt-3-6-miljard-verlies~a4487661/
Volkskrant	http://www.volkskrant.nl/binnenland/kippenhouders-hebben-door-dreiging-vogelgriep-alles-behalve-een-vrolijk-pasen~a4487646/

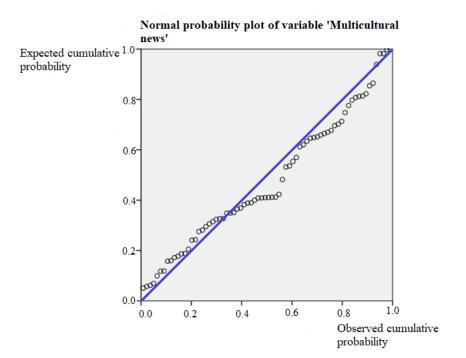
NU.nl	http://www.nu.nl/gezondheid/4627458/risicos-patienten-fouten-raad-van-bestuur-van-umc-utrechthtml
NU.nl	http://www.nu.nl/reizen/4627632/populair-visum-tussenjaar-werken-australie-verandert-niet-nieuwe-werkvisa.html
NU.nl	http://www.nu.nl/eten-en-drinken/4621524/zeewier-groente-van-toekomst.html
NOS	http://nos.nl/artikel/2167541-apple-en-horlogemaker-swatch-ruzien-over-reclameslogan.html

# Appendix C

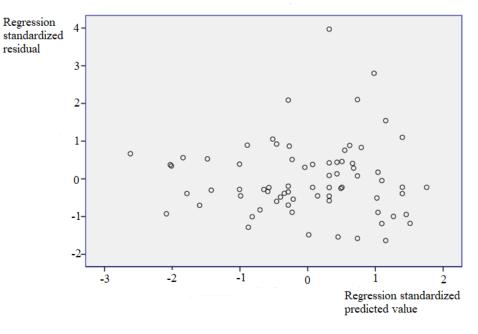
This appendix displays the following:

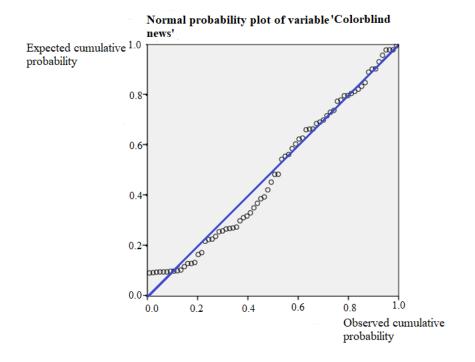
- The Normal P-P plots that indicate that the assumption of linearity is met for the regression analyses of Experiment 1 and Experiment 2.
- The scatterplots of the regression analyses of Experiment 1 and Experiment 2 that provide evidence of homogeneity of variance and suggest that the assumption of independence and linearity have been met are shown.

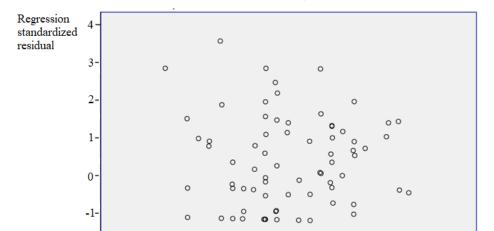
Experiment 1 (N = 72)



# Scatterplot dependent variable 'Multicultural news'







-1

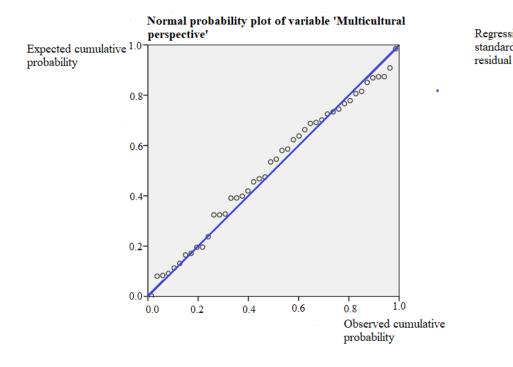
-2

-2-

-3

Scatterplot dependent variable 'Colorblind news'

Regression standardized predicted value



# Scatterplot dependent variable 'Multicultural perspective'

