

Framing technocracy: a threat or opportunity?

How does media framing affect Dutch citizens' attitudes towards European technocracy?

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Preface

This thesis is written in order to finalize the master's programme Public Administration: International and European Governance at Leiden University. It serves as a contribution for the specific research field of public administration about technocratic attitudes. I want to thank Dr. Johan Christensen for supervising me through the process of my thesis. I also want to thank all 304 respondents who participated in this research.

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Chapter 1

Introduction & problem definition

1.1 Introduction

Technocracy is a frequently used concept with often a negative tone. The concept refers to a governance system whereby experts with scientific knowledge rule the government (Gunnel, 1982, p. 392; Fischer, 1990, p. 18). Technocracy is a catchy buzzword, frequently used by the media to grasp attention about a specific issue. Words as ‘Eurocrat’ and ‘Eurocracy’ are mostly used by the media to express a certain view about technocracy in the European Union. Additionally, several scholars view technocracy as a counterpart and a threat for democracy. On the other hand, there are scholars who view a rule by experts as an opportunity for governance in order to gain effectiveness in policy making (Gunnel, 1982).

This research, however, is not about the attitudes of scholars on technocracy, but the attitudes of Dutch citizens on technocracy, more precisely, the technocratic attitudes of Dutch citizens. Technocratic attitudes are opinions of individuals about how much they prefer technocrats making the most important political decisions in a state, instead of elected politicians. And how much they prefer that these decisions are based on scientific knowledge and rationality, instead of on an ideology. The relevance of studying this is because in democratic states, such as the Netherlands, citizens may prefer that elected officials, instead of unelected experts, make important political and societal decisions. The reason for this thought is that elected officials grant legitimacy for making important decisions, because they are democratically elected. Others might view experts as more capable in solving complex societal issues, instead of elected officials, because experts have scientific knowledge and this gives them legitimacy (Boswell, 2008, p. 2-4).

Existing research has shown that technocratic attitudes are shaped by certain factors, such as educational background, individual and country-level factors, political preference, political trust and political satisfaction (Bertsou & Pastorella, 2017; Putnam, 1977; Hibbing & Theiss-More, 2002; Coffe & Michels, 2014). Although, there is one factor that also plays a huge role in opinion and attitude formation of individuals in modern society, namely the media. Media are the most important

information sources for citizens and therefore have an important impact on their thoughts and opinions about certain affairs, especially about European Union and other international affairs (Shehata & Stromback, 2014, p. 93). But the media decide *how* they communicate information, by *framing* their messages. As mentioned above they use words with a certain kind of value to express their own views about the situation. Instead of the words ‘European civil servant’ they use the word ‘Eurocrat’ for example. If the contents of media outlets are this important for individuals in shaping their opinions, and taking in consideration that this content is framed in a particular manner by the communicator, will these contents have an effect on the opinions of citizens about technocracy?

The topic of this research is about the impact of media content on citizens’ thoughts. More specifically, this thesis is about the effects of media *framing* on the technocratic attitudes of Dutch citizens. The specific context of technocracy for this research will be the European Union. The European Union is structurally based on working groups, think tanks, advisory boards and committees of experts, where it is not always clear how and who made the decisions (Radaelli, 1999, p. 758). This structure could give the impression that the European Union has technocratic features, but this is not necessarily the truth, and will be further elaborated in the literature review. Beside this, the European Union is far from the daily live experiences of citizens, compared to events that occur on national level. Because of this, citizens do not have much knowledge about the structure and the daily work of the European Union and turn to traditional media sources such as the television and radio to obtain their information about the European Union (Standard Eurobarometer, 2017, p. 45).

According to earlier research, media content has an effect on the opinion formation of individuals. And if media content about European technocracy is frequently expressed in a particular way (negative or positive) this may influence citizens’ attitudes towards European technocracy, which makes it an important effect to study.

The research question of this paper is:

How does media framing affect Dutch citizens’ attitudes towards European technocracy?

Framing is a broad concept, therefore the effects of one specific form of framing will be studied in this research, namely valence framing. If a message is valenced framed, the content is described in either a positive or negative light. The choice to test this form of framing is because, based on earlier studies on framing, this frame is the most useful in observing evaluations of individuals. A technocratic attitude is an evaluation of an individual on expert involvement, thus testing valenced frames fits best in this research. The dependent variable that will be influenced by the independent variable are the attitudes of Dutch citizens towards European technocracy. This means that the preferences of Dutch citizens about experts involving in the European Union and their preferences that European decisions are based on scientific considerations, will be measured. The reason for this focus is because it delimits the scope of technocracy only to one context and, because European Union technocracy is often portrayed negatively in the news media.

In this research the effects of media frames are tested with a survey experiment on a sample of 304 Dutch respondents, the survey experiment was distributed online via Qualtrics. The respondents first read a vignette with a news message where expert involvement was either framed as a threat (experimental group 1), or as an opportunity (experimental group 2) or where expert involvement was described in a neutral way (control group). After reading the news message, respondents gave their opinion on six statements that measured their technocratic attitudes. Finally, they filled in seven general questions about demographic factors, political orientation, which media sources they usually utilize and their opinion on the performance of the European Union and their trust in the EU. The differences in answers between respondents in the two experimental groups and the control group were compared to each other, in order to analyse if frames have influenced the respondents' technocratic attitudes after reading the news messages.

1.2 Problem definition

This thesis focuses on media frames as a main factor that can, or cannot, influence the technocratic attitudes of citizens. As mentioned earlier, media content has influence on citizens' opinions. The media usually frame the information that they communicate. Therefore media frames are relevant factors to observe on how they affect technocratic attitudes.

The scientific relevance of this research is that the effects of media frames on technocratic attitudes have never been studied before. Usually the effects of media frames on citizens' opinions on European Union enlargement have been studied (De Vreese & Schuck, 2006; De Vreese & Boomgaarden, 2003). But there is no empirical study to the effects of media frames on technocratic attitudes. That fact is striking, because the media are important information sources for individuals. This research will try to fill in this gap of missing evidence.

Furthermore, the research design of this study is a survey experiment, which is not a frequently used design in the field of public administration. An explanation for this is that public administration scholars rarely focus on the individual level of analyses and usually focus on the organizational level. Experimental designs are difficult to conduct in an organizational setting (Margetts, 2011, p. 195). However, there is a trend noticeable of increased interests in the experimental design for fields such as political science and public administration (Margetts, 2011, p. 190). Most of them are about the change of citizens' behaviour or their perceptions about a specific policy when it is described in a certain matter (Margetts, 2011, p. 193). An example of such a research is a study on the effects of how a local governments' performance is communicated by the media, on citizens' support for local government spending (Baekgaard et al, 2015, p. 335). The specific survey experimental design is also used for studies that observe the impact of negative stereotypes of public organizations on the perceptions of citizens about public sector organizations (Hvidman & Andersen, 2015; Van den Bekerom, Van der Voet & Christensen, 2017). With a survey experiment the researchers could isolate the variable 'publicness' from other factors that might have influenced individuals' perceptions. Another relatable research was conducted with a survey experimental design to observe if favourable information about a public service (postal service) has an effect on citizens' views of that service (Baekgaard et al, 2015, p. 335).

The survey experimental design is, as proved by earlier studies, useful to measure the perceptions of citizens on specific issues related to public administration. Since this research is also about a form of perceptions, namely technocratic attitudes, a survey experiment as research design is suitable. There have been no studies on technocratic attitudes with the use of a survey experiment, which will make this research a pioneer in using this research design to measure technocratic attitudes. An experimental

design fits best for this research, because other possible factors that can influence technocratic attitudes will be eliminated.

The choice for Dutch citizens is because of the fact that The Netherlands is a European Union member state, and because Dutch citizens use traditional media sources, such as the television, radio and newspapers, most often to obtain information about the European Union (Eurobarometer, 2017). It could be the case that the technocratic attitudes of Dutch citizens are influenced by media content and especially by the way this content is framed. An explanation why Dutch citizens particularly use traditional media sources for European information is that European Union affairs are far from their daily life experiences. This will likely lead to more reliance on media content about European topics, such as technocracy. And if this content about technocracy is framed in a highly negative or positive way, this can influence citizens' attitudes about European technocracy, which may not be based on accurate and objective information. In this sense, the societal/practical relevance of this research is that it can function as a study to make readers aware of the influence of media framing on their cognitive competences. Besides, it can also be used as a warning for readers to not just believe everything that is written in the media and to critically assess the content of news messages.

Nowadays, however there is an awareness debate going on about 'fake news' and its impacts. Fake news is a news item where the content is purposefully false and it mostly circulates around on the Internet (Allcott & Gentzkow, 2017, p. 213). The intentions of fake news providers are mostly ideologically driven, but also profit seeking, because they draw advertising revenues when social media users click on their messages. Fake news would allegedly have influenced important events such as the 2016 Presidential elections in the United States, and it would have led to distrust in the news media by citizens (Allcott & Gentzkow, 2017, p. 212). Fake news looks like framing, but the difference is that fake news is false news and framing is describing an event in a different light, but still keeping the essential 'truth' in the message. It is highly important and interesting to study the phenomenon fake news, but because the literature on this concept is still premature and it is methodically challenging to measure its impacts, this thesis is not focussing on fake news.

1.3 Guide through thesis

The topic and the problem definition of this research are introduced and the thesis will continue with a literature review. In this part the concepts technocracy, technocratic attitudes, opinion formation and framing will be described and explained in more detail. After the literature review the hypotheses will be formulated. Furthermore the research design will be described about which population, sample, methods and data collection strategy will be used and the operationalization of key variables is described to measure and answer the research question. Afterwards the analyses on the results will be given and finally the thesis will close with a conclusion, academic and practical implications of the research, study limitations and a discussion.

Chapter 2

Literature review

2.1 Technocracy

2.1.1. Defining technocracy

Technocracy came to light as a movement in the United States around the early 1930's, as a response to the economic crisis. This period is mostly called as the era of modernity (Fisher, 1990, p. 59). The technocracy movement contained technicians and engineers who wanted social reform, whereby the idea was that politicians should give technical experts more influence in policy making. Their argument was that the influence of technicians in policy making would increase administrative and technical rationality and reduce corrupt politics (Gunnel, 1982, p. 393).

The term technocracy is a system of governance, which means: *“the government (or control) of society by scientists, technicians or engineers- or at least the exercise of political authority by virtue of technical competence and expertise in the application of knowledge”* (Gunnel, 1982, p. 392). Or to put it more clearly: technocracy is a government run by scientists, technicians and experts, where decision-making is based on rational considerations and scientific analytic methods, instead of ideological insights (Gunnel, 1982, p. 392). The most important element of a technocracy is technical expertise. With technical expertise is meant scientists who are experts in applied sciences, for example engineers. In a technocracy, this technical expertise is used for governance to solve political and societal problems, make important public decisions and decide which policies will be implemented.

Technocracy is: *“the adaption of expertise to the tasks of governance”* (Fischer, 1990, p. 18).

This means that the officials, thus the experts, who make the most important decisions in a society, are not democratically elected, which is also an important element of technocracy. Officials who make the decisions in a technocracy have this power, because they have expertise. Their legitimacy is based on their expertise, and not on elections (Sanchez-Cuenca, 2017, p. 362).

In a technocracy, experts have important positions in dominant political and economic institutions, because of their highly specialized knowledge (Fischer, 1990, p. 17).

The power of the institution where the expert works is an important determinant for the existence of a technocracy, or put more clearly, it is an important determinant for the expert to be a *technocrat*. Only in institutions with high levels of influence in policymaking, the chance of the emergence of a technocratic structure will be high (Centeno, 1993, p. 314).

A technocrat is an individual who works in a technocracy, who is an expert with specialized knowledge and is part of the bureaucracy of a government (Centeno, 1993, p. 310). Not all experts can be technocrats; only when an expert has high levels of responsibility in the administration of an organization, the expert will be a technocrat. This means that a technocrat has autonomy in his specific expertise area and has influence in political decisions (Centeno, 1993, p. 310).

Technocrats do not share an ideology, they rather share a mentality on how to analyse problems, formulate solutions and implement policy. They share the same ideas on which methods must be used to solve problems in an effective way (Centeno, 1993, p. 312). Technocrats also share the common idea that experts must have a great role in political decision-making. Public policies must be saved from irrational democratic politics by using scientific, rational and analytical methods (Fischer, 1990, p. 21). With irrational democratic politics is meant: group competition, compromise and bargaining. Technocrats share the thought that this way of policy making will not lead to rational and empirical evidence based policy making (Fischer, 1990, p. 22).

“Whereas many democratic political theorists have long celebrated these features as the marks of a well-functioning and politically legitimate government, technocratic writers see them as a nightmare of irrationality- a system of government perpetually generating ineffective policies that mainly compound the very problems they seek to solve” (Fisher, 1990, p. 22). The reason why technocrats have this thought about democratic elected politicians is, because politicians lack fundamental information about highly complex and technological issues (Fisher, 1990, p. 22). To solve these complex issues, politicians must be replaced by experts who stand above political processes (Fisher, 1990, p. 24).

When one looks at all states in the world, there is not one state with a pure technocratic regime form, based on the definition above. But technocrats do have much influence in contemporary regimes, especially on forming and implementing public policies (Fischer, 1990, p. 18). Decisions about policies are not purely made by politicians and political parties, but are mostly shifted to administrations of policy experts (Fischer, 1990, p. 18). The level of influence these experts can have, depends on the politicians who are willing to grant this to them (Fischer, 1990, p. 19).

Miguel Angel Centeno (1993) studied five factors that can lead to technocratic control in a state. The first factor is the complexity of problems. Politicians find it difficult to solve problems, especially when the problems are highly technical such as cybercrime. Experts are needed to understand and solve these complex problems (Centeno, 1993, p. 318). The second factor is that politicians need experts to show that their decisions are the best ones, to gain legitimacy. By basing their decisions on the knowledge of experts they demonstrate how efficient their ideas are (Centeno, 1993, p. 320). The third factor that can foster technocratic control is the level of power the institution has where the technocrats work. If the institution has a big role in policy making, the technocrat has much influence in the decision-making process (Centeno, 1993, p. 321). A fourth factor is the stability of the regime. In some cases instability can have benefits for technocrats, especially when there is an economic crisis. Their reputation as rational and apolitical actors assures citizens to trust the experts, instead of the politicians who caused the unfortunate situation (Centeno, 1993, p. 324). Distrust in politicians by the public has benefits for technocrats (Radaelli, 1999, p. 760). The last factor is the world system. International organizations can improve the technocratic control, because they have much influence in nation-states (Centeno, 1993, p. 325).

The focus of this research is on the technocracy in the European Union. The European Union is most often referred as a political entity with a technocratic structure. This is because several experts and networks of experts are involved in the policy making process. Several interest groups, non-state actors and companies have to some extent influence in the European policymaking. These groups lobby for their own interests, but they also share information, knowledge and solutions with the European Commission on specific European problems (Radaelli, 1999, p. 759). In the Commission itself, different experts work together on specific fields. However, when examining the European Union more closely, the EU does not have a total

technocratic structure. There is no European technocratic government that rules the Union on its own; although the Commission is frequently seen as the executive power of the Union and has characteristics of a technocracy, it still has to deal with the European Parliament and The Council in making decisions about European policies. The European Parliament acts in the interests of European voters and The Council acts in the interests of the nation states. These institutions are in a continuous rivalry for power and cooperation is the key element for European decision-making (Radaelli, 1999, p. 760). There is no technocratic administration that rules the European Union on its own.

2.1.2. Technocratic image

Scholars have mostly put technocracy in a debate against representative democracy. According to several scholars, the increasing influence of scientists and technicians in policy making will lead to the scientification of politics and will eventually lead to authoritarian rule. In this view technocracy stands in a negative relationship with democracy; if one increases, the other decreases (Bertsou & Pastorella, 2017, p. 431). Other scholars argue that technocracy does not form a danger for democracy. Technocratic administration would actually help democratic regimes in solving societal problems in the most effective way (Centeno, 1993, p. 309). For this research it is important to have an understanding about the several contrasting views on technocracy by scholars. By understanding the debate where technocracy stands in, the conceptualization of technocratic attitudes will be clear.

One of the first references to technocracy as a government form was from the Greek philosopher Plato. He opted that a group of the most wise men in a society must govern the city; in his context these wise men were philosophers. His argument for the rule of wise men was, that they have the most knowledge in a society. The Philosopher king is the only person who has access to idea's (knowledge) which makes him fit for ruling the polis (Gunnel, 1982, p. 393).

Henri de Saint-Simon was the first to define a pure technocratic model of a society with scientists, engineers and technicians as the main elite on solving societal problems. His idea was that by letting experts decide on societal problems and place them in a parliament of technical experts, a rational social order would emerge in a state (Gunnel, 1982, p. 394). The period wherein Saint-Simon wrote his pure

technocratic model was the era of Enlightenment, where rational thinking and scientific knowledge were highly praised. Technocracy is the most 'rational' form of governance and this fact makes it understandable why technocracy attracted positive attention in that period (Gunnel. 1982, p. 394).

Max Weber was one of the first scholars who warned for the consequences of giving scientists more political power. Although Weber was positive about the role of rationality in governments' administrations and the crucial role of expertise for effective governance, he feared the possibility of bureaucrats having the most power in a state. For Weber, a bureaucracy was the most efficient way of administration, but it must not become autonomous from the politician. The politician was in his eyes, the most important actor to make public policies. The bureaucrat had to stay neutral and not involve in the political course of a government (Gunnel, 1982, p. 395). His argument was that bureaucrats were unfit to rule a state, because they uphold conservative views of the upper class of society and are usually individuals who are not in touch with society (Gunnel, 1982, p. 395).

Karl Mannheim and other scholars in the period between 1930 and 1950 were positive about technocracy, because it would replace ideology and utopia. In this period the Second World War led to a great aversion towards ideology and the belief emerged that science based administration was a pragmatic and effective way to solve societal issues. Technocracy was viewed as the best form of governance in that period, because it would reduce nationalism, ideological thinking and racism (Gunnel, 1982, p. 395-396).

Opinions on technocracy vary among scholars and the debate is often between the views of technocracy as a threat for democracy, or as an opportunity for effective governance. These two aspects are important key elements to use for the conceptualization of technocratic attitudes. In this research, however, not the views of scholars but the views or *attitudes* of citizens about technocracy are the main focus.

2.1.3. Technocratic attitudes

Identifying and understanding the formulation of technocratic attitudes is of great importance for this research. Additionally, the conceptualization and operationalization of technocratic attitudes is also important. First there must be a clarification about what technocratic attitudes are. Earlier, the technocratic mentality of technocrats was described, which means that they share the same ideas about

which methods must be used to solve societal problems and that experts must have more influence in governance (Centeno, 1993, p. 312; Fischer, 1990, p. 21).

Putnam (1977) formulated six hypotheses that describe the technocratic mentality:

1. *“The technocrat believes that technics must replace politics and defines his own role in apolitical terms.*
2. *The technocrat is sceptical and even hostile toward politicians and political institutions.*
3. *The technocrat is fundamentally unsympathetic to the openness and equality of political democracy.*
4. *The technocrat believes that social and political conflict is misguided and contrived.*
5. *The technocrat rejects ideological or moralistic criteria, preferring to debate policy in practical, pragmatic terms.*
6. *The technocrat is strongly committed to technological progress and material productivity; he is less concerned about distributive questions of social justice”* (Putnam, 1977, p. 385-387).

Technocratic attitudes are similar to the technocratic mentality of technocrats, but the former is more in the context of the attitudes of citizens and not technocrats who work for governmental institutions, such as the latter.

Technocratic attitudes can be defined as an opinion of an individual about how much he or she prefers that technocrats (experts) make the most important political decisions, instead of elected politicians. Additionally, not only the actor is important for technocratic attitudes, such as the technocrat or the politician, but also the method how decisions are made and based on is important. This means that technocratic attitudes also contain the preference of an individual about if he thinks that decisions must be based on scientific knowledge and rationality, instead of ideological considerations (Putnam, 1977, p. 385-387; Bertsou & Pastorella, 2017, p. 431). These aspects of technocratic attitudes can lead to compositions such as an individual who prefers elected politicians as most important actors to decide on political matters, but also prefer that the decisions must be based on scientific knowledge. It is therefore important for the operationalization of technocratic attitudes that the two aspects (preference for actor and method) are measured multiple times and in different formulations in order to observe a clear image of ones' technocratic attitudes. This could be done with several statements as survey questions.

2.1.4. Determinants of technocratic attitudes

Now it is clear what technocratic attitudes are, it is important to know which factors influence the level of technocratic attitudes and what other scholars found on the levels of technocratic attitudes.

Putnam (1977) was one of the first scholars who studied the technocratic mentality of civil servants. In his study he interviewed high-ranking national civil servants in the countries: Great Britain, Germany and Italy. His aim was to capture if civil servants do have a certain mentality resembling the mentality technocrats have as described above (Putnam, 1977, p. 388). The general conclusion of Putnam's study confirms that technocrats indeed view democratic elected politicians as irrational and unfit for decision-making (Putnam, 1977). More specifically, his findings point out that civil servants with a natural science background tend to have more technocratic attitudes, compared to civil servants with a social science background. Experts with a natural science background, view the political aspect of their work as more incompatible than experts with a social science background (Putnam, 1977).

If it is likely that some civil servants share the technocratic mentality, the question is whether citizens also share the same mentality? An early study on the opinions of citizens towards expert involvement in democracy is one of Hibbing and Theiss-More (2002), conducted among citizens of the United States. Hibbing and Theiss-More (2002) studied the opinions of citizens in the United States about their preferences for *stealth democracy*, with a survey. This concept looks like technocracy, and means that decision-making must be based on efficiency and objectivity without any disagreement by several parties (Hibbing & Theiss-More, 2002, p. 143). In a stealth democracy there is less political debate and less influence of party interests. Also, in a stealth democracy the procedures of governmental decision-making are not transparent, which means that the public cannot directly know how decisions are made. This aspect is also one of the technocratic mentalities as described by Putnam (Hibbing & Theiss-More, 2002, p. 143; Putnam, 1977, p. 385-387). The results of the study were that US citizens do prefer experts involving in governmental decision-making. The level of education of the respondents did not have a significant effect on their support for stealth democracy (Hibbing & Theiss-More, 2002, p. 146). The factor of political party preference showed that Republicans were more supportive for stealth democracy than Democrats. This means that political preferences do have an

influence on the support of citizens for stealth democracy (Hibbing & Theiss-More, 2002, p. 149).

Coffe and Michels (2014) studied the preferences of Dutch citizens for stealth democracy. They compared the levels of education of citizens with their preferences for direct, representative or stealth democracy and measured this with a survey. Their conclusion was that low educated Dutch citizens were more likely to support stealth democracy, compared to high-educated citizens (Coffe & Michels, 2014, p. 8).

Other scholars claim that political dissatisfaction and distrust leads to more support for stealth democracy (Bengtsson & Mattila, 2009). In sum, support for stealth democracy can be influenced by educational backgrounds and political satisfaction.

Bertsou and Pastorella (2017) studied the question how citizens view technocracy by analysing existing survey data. In their analyses they contributed individual and contextual factors in explaining how citizens' views were shaped by these factors (Bertsou & Pastorella, 2017, p. 431). The individual factors contained the citizens' view on representative democratic governance. The country level factors contained indicators as the kind of history, regime type, level of corruption and economic conditions a state has where the respondent lives. Country level factors are important, because citizens in different European states might view technocracy differently (Bertsou & Pastorella, 2017, p. 436). The results of their study confirmed most of their hypotheses. Citizens with more positive attitudes and trust towards democracy had more negative attitudes towards technocracy. Also, citizens with more trust in the European Union tend to be more positive towards technocracy, although the relationship is not very strong. Looking at the country-level hypotheses, not all of them are confirmed. Citizens who experienced an authoritarian rule were indeed more positive towards technocracy, but high level of corruption and difficult economic conditions did not have a strong positive effect on technocratic attitudes of citizens (Bertsou & Pastorella, 2017, p. 444-445).

To conclude, the determinants of technocratic attitudes are most often: educational, country-level and individual-level factors, political preferences, political trust and political satisfaction. Scholars mostly used questionnaires' to measure the technocratic attitudes of their samples.

2.2 Opinion formation and framing

2.2.1 *Opinion formation*

According to the authors mentioned above, technocratic attitudes are shaped by individual and country-level factors (Bertsou & Pastorella, 2017), educational background (Putnam, 1977; Coffe & Michels, 2014), political party preference (Hibbing & Theiss-More, 2002) and political satisfaction and distrust (Hibbing & Theiss-More, 2002; Brengtsson & Matilla, 2009). A technocratic attitude is an opinion about technocracy or technocratic features and an opinion is not only formed by the factors listed above. This research will delve in another aspect that has influence on opinion and attitude formation, namely the media.

In forming an opinion, three factors are important: personal experience, interpersonal communication and the media. Because our own experiences and communication with others are limited, the media are the most useful sources of information for individuals (Shehata & Stromback, 2014, p. 93). Citizens use the media as their sources in utilizing information about political affairs. Especially information about the European Union is frequently obtained from the media, because this kind of political system is viewed as a ‘far away’ entity from daily life experiences (Maier & Rittberger, 2008, p. 245). Individuals most likely obtain information about international policies from the media (Soraka, 2003, p. 27). Policymakers follow the media to understand the public opinion about specific issues and for citizens the media are the most important sources for political information (Soraka, 2003, p. 29). Media content is thus a very important source in forming opinions about political affairs, for both politicians and citizens.

Maier and Rittberger (2008) studied the effect of media content exposure on public attitudes towards European Union enlargement with an experiment. The results of the study showed that media exposure has a strong impact on the opinions of the participants about EU enlargement, compared to the participants who were not exposed to media content (Maier & Rittberger, 2008).

An important point for consideration is that the media not simply provide information, they also decide *how* they formulate the information; this means that they can *form* the content of a news message in a certain way, which can have influence on the opinion of a reader. For example, in shaping their opinion about the European Union, citizens in Europe mostly use the media as their main information sources. When this

information is shaped in a particular way, this information not only helps individuals to *formulate* an opinion, but also decides *what* their opinion will be. This means that the way news is shaped about the European Union determines the opinions of citizens about the European Union (De Vreese & Boomgaarden, 2006, p. 421).

This important point of shaping information by the media, which is also the focus of this research, is called *framing*. The next part of this literature review will delve deeper into the concept of framing.

2.2.2 Framing

Framing is a way of communicating information, by selecting some aspects of the reality with the purpose to put emphasis on it. As the concept suggests, it means putting a frame around information in order to include or exclude specific elements of the reality with an intention (Hallahan, 1999, p. 207). Entman (1993) defined the essence of framing as: “*Framing is selecting some aspects of perceived reality and make them more salient in the communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation and/or treatment recommendation for the item described*” (Entman, 1993, p. 55). By framing a message, the meaning of the message is shaped in a particular way, so that individuals who are exposed to the framed message will interpret the meaning in the same way. The communicator of the framed message reflects its judgments about the information through the message, in order to influence the opinion of the receiver (Hallahan, 1999, p. 207). The goal of a communicator to frame a message is to bias the processing of information of the individual that reads the message (Hallahan, 1999, p. 208).

There are various forms of framing. For example, a message can be framed in either a positive or negative way. This is called valence framing. Another form of framing is semantic framing, where terms are phrased in alternative ways in messages, for example the word ‘good’ is replaced by ‘perfect’. Story framing is another form of framing where some key themes of a message are selected and described in a storytelling way (Hallahan, 1999, p. 207).

The focus of this research is on *valence framing*. By framing a message in a negative or positive way, the reader develops a rule-of-thumb that guides his opinion about the situation in the message and also his opinion about situations that are similar to the event. Also, in earlier studies on valence framing scholars discovered that negative

information about a particular topic is weighted more heavily than positive information (Hallahan, 1999, p. 208).

There are three types of valenced frames: risky choice framing, goal framing and attribute framing. Risky choice framing is framing a message in a way where the outcome of a particular choice is described in different ways. The focus of the frame is on a set of options with different levels of risk. Goal framing is that the goal of a particular described behavior in a message is either framed as a gain or as a loss. This means that a certain behavior or action of an individual or organization is either framed as to provide a gain or to avoid a loss (Levin, Schneider & Gaeth, 1998, p. 167). Attribute framing is that some element or attribute of a situation is framed and emphasized. Other elements of the situation are not framed or not provided. Only one single element or attribute of a context is framed. With attribute framing the effect of the frame is not to choose between two options, such as risky choice framing, but it is focused on the process of evaluation. This can be the opinion of the reader about an event, in example if he or she finds the situation favorable or not, or if he or she accepts or rejects the situation. Figure 1 illustrates how attribute framing is conducted.

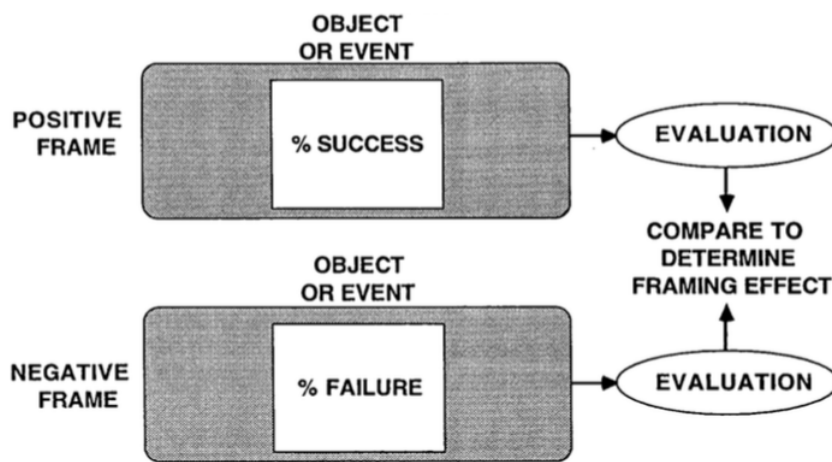


Figure 1: The attribute-framing paradigm (Levin, Schneider & Gaeth, 1998, p. 158)

This research will focus on the attribute framing form of valence framing, because with this form of framing the change in evaluations can be observed and the focus of this study is about evaluations, namely the attitudes on European technocracy of Dutch citizens. In the next paragraph the effects of framing will be described.

2.2.3. Framing effects

A framing effect occurs when a framed message affects the understanding of the reader about a particular event or situation (Price, Tewksbury & Powers, 1997, p. 482). Journalists or other kind of communicators use frames in order to influence the opinions of readers. Their goal is to change the beliefs of the audience about the subject in the framed message, and more importantly, to let the audience think about the subject the same way as the communicator thinks (Nelson, Oxley & Clawson, 1997, p. 225). Some frames can activate cynicism and mistrust among the readers of the framed message. Frames also affect the ability to recall the information by the readers, for example personalized messages are easier to recall than messages that are less personalized or less ‘close-to-home’ (Valkenburg, Semetko & de Vreese, 1999, p. 552-554). A frame is effective if: *“it stimulates a significantly different distribution of opinions than an alternative frame when individuals are exposed to them separately”* (Chong & Druckman, 2007, p. 105). This means that if a reader is exposed to a negatively framed message about, for example, austerities, the readers’ opinion about austerities would be negative, instead of if the reader was exposed to a positively framed message about austerities. That form of framing will be used for this research. The effects of attribute framing is that positive framing of an attribute leads to more favorable evaluations of a situation and negative framing leads to less favorable evaluations of a situation. Presenting a glass as half full (positive frame) or as half empty (negative frame) will have an influence on the evaluations of the individual who received the frames.

Although this effect seems obvious, it has a deeper effect. It means that framing has influence on the processing of information of individuals. (Levin, Schneider & Gaeth, 1998, p. 164). Framing a particular element of a situation in a positive way can lead to favorable associations in the memory of an individual, and negative frames can lead to less favorable associations (Levin, Schneider & Gaeth, 1998, p. 164).

Most studies on attribute framing are about consumer judgment, product evaluation, job placement programs and medical treatments (Levin, Schneider & Gaeth, 1998, p. 159). In almost all studies on attribute framing, positive framing leads to favorable attitudes and negative framing to less favorable attitudes. This is called the valence-consistent shift (Levin, Schneider & Gaeth, 1998, p. 160). In this sense, the attribute frame has a strong influence on the opinions of individuals and is therefore an important independent variable to take into consideration.

There are a few studies on attribute framing in the European Union context. De Vreese and Schuck (2006) studied the effect of news frames on public support for European enlargement, with an experiment. The researchers tested if news messages framed in a particular way would have influence on the support of participants for the enlargement of the European Union. In this study EU-enlargement was framed as either an opportunity for Europe or as a risk for Europe. The risk frame was formulated as: that enlargement of the European Union would have negative consequences, such as high economical costs and instability. The opportunity frame was formulated as: that enlargement of the European Union would have positive consequences, such as a spread of democracy and economic growth in European countries. The results of this research showed that participants who were exposed to an opportunity frame were significantly more supportive for European Union enlargement and participants exposed to the risk frame significantly less supportive for European Union enlargement (De Vreese & Schuck, 2006).

De Vreese and Boomgaarden (2003) studied the effects of framed news coverage about a European Union summit on support for European Union in general, and European enlargement of participants. The summit was either framed as advantageous or disadvantageous. Participants who were exposed to the disadvantageous framed news message expressed low levels of EU support and were more negative about EU-enlargement whereas participants exposed to the advantageous framed news message expressed higher levels of EU support and positive attitudes about EU-enlargement (De Vreese & Boomgaarden, 2003). These studies show that valenced-framed news messages indeed have an effect on the opinions of participants.

2.2.4. Framing in media

Framing occurs in almost all media channels and contents. Semetko and Valkenburg (2000) observed if various forms of framing occurred in Dutch national newspapers and Dutch television news programs. Their conclusion was that framing does occur in all media, especially framing in a way that some actor has the full responsibility (Semetko & Valkenburg, 2000). Another study focused on the occurrence of framed news about European Union related affairs. De Vreese, Peter and Semetko (2001) observed if news media messages about the launch of the Euro were framed in a particular way in several European states' news channels. Their conclusion was that framing indeed occurred and especially news messages framed in a way were the

economic consequences of the Euro were emphasized (De Vreese, Peter & Semetko, 2001, p. 117).

2.3 Hypotheses

The research question of this research is: *How does media framing affect Dutch citizens' attitudes towards European technocracy?* As mentioned before, for this research a form of valence framing will be studied, namely attribute framing, because this form of framing is most often used to manipulate evaluations and opinions of individuals. The literature discussed above suggests that valenced frames do indeed have an effect on the opinions of individuals. Framing a situation in a positive or negative light will have influence on if individuals view the situation as positive or negative too. The terms *positive* and *negative* are somewhat broad and unclear, because the interpretation of the terms can vary among individuals. Therefore, the messages in this research will be framed as either a threat (negative frame) or opportunity (positive frame). These terms are also used by other scholars in their study to the effect of valence framing (De Vreese & Schuck, 2006; De Vreese & Boomgaarden, 2003).

Technocratic attitudes is described as the opinions of an individual about how much he or she prefers that decision-making about public policies is made by experts and based on scientific knowledge and rationality, instead of democratic elected politicians and ideological considerations. Considering technocratic attitudes as such means that valenced-framed news message about technocracy or expert involvement could affect these technocratic attitudes of individuals. Additionally, since framing does occur in Dutch media outlets and Dutch citizens do use traditional media sources to obtain information about the European Union, the following hypotheses can be expected:

H1: Exposure to a threat frame negatively affects attitudes towards European technocracy

H2: Exposure to an opportunity frame positively affects attitudes towards European technocracy.

In order to observe the effects of framed messages on technocratic attitudes, one control group of respondents will not read a framed message. The differences in attitudes between respondents in the control group and the two experimental groups will be compared to each other in order to measure an effect of framing.

Chapter 4

Research design

4.1 Population & Sample

The population of this study are Dutch citizens, who are older than 18 years. The choice for this population is because the Netherlands is a European Union member state and, according to the Standard Eurobarometer (2017), Dutch citizens acquire information about European Union affairs mostly (79% from television, 52% from news papers, 31% from radio) from traditional media sources (Standard Eurobarometer, 2017, p. 45). If Dutch citizens use the media as this much for their information about the European Union, and since studies have shown that framing occurs in traditional media channels, which in turn affects opinion formation, it could be the case that the opinions of Dutch citizens about the European Union are most likely affected by news frames. This makes the Dutch population a relevant case to study, since they may be confronted with media frames frequently.

A sample of 304 Dutch citizens has participated in this research. Most of the respondents were students from Leiden University, but in order to make the sample as representative as possible, the survey was distributed on several social media networks, emailed to civil servants working for the municipality of Dordrecht and emailed to workers of Primark Dordrecht. The sample consists of 35% male and 63% female respondents (with 1% of respondents who would rather not say their gender). The vast majority of the sample was between 18 and 30 years old, and only 1.3% of the sample was older than 61 years. And finally, the majority of the respondents are high educated, whereby most of the respondents have a university degree (43%) followed by 30% of respondents with a HBO degree (one level lower than university in the Netherlands). There were no respondents with a lower degree than a high school degree.

Despite the ambitions of making a representative sample as possible, the sample does have the features of a convenience sample. Most respondents are female, between 18 and 30 years old with a university degree, which are the same demographic features as the writer of this thesis and because most respondents are students at Leiden University. The sample in particular contained respondents who were easy to reach.

Table 1.1 Gender of respondents

Gender		Frequency	Percent
Valid	Male	107	35,2
	Female	192	63,2
	Rather not say	4	1,3
	Total	303	99,7
Missing	System	1	,3
Total		304	100,0

Table 1.2: Age of respondents

Age		Frequency	Percent
Valid	18-30	196	64,5
	31-40	53	17,4
	41-50	30	9,9
	51-60	20	6,6
	61+	4	1,3
	Total	303	99,7
Missing	System	1	,3
Total		304	100,0

Table 1.3: Educational degree of respondents.

Education		Frequency	Percent
Valid	High school	25	8,2
	MBO	52	17,1
	HBO	92	30,3
	University	133	43,8
	Total	302	99,3
Missing	System	2	,7
Total		304	100,0

4. 2 Method & data collection

This research is about the effects of media frames on technocratic attitudes of citizens in the context of the European Union. In order to observe an actual effect of frames on the attitudes of citizens, a *three-group-post-test-only* survey experiment is the best possible way to use as design to measure this effect and will therefore serve as the design for this research. A survey experiment is a combination of the experimental and survey designs. This means that elements of an experiment are present, such as random assignment into experimental or control groups in order to avoid selection bias and it has the elements of a survey design such as questionnaires and a relatively great-scaled sample of the population the research wants to draw conclusions upon. With an experiment the researcher can have control over the environment. In this way the researcher can make sure that other possible factors that can influence the dependent variable will be eliminated from the research. Only the independent variable will influence the dependent variable. The internal validity of the research (the assurance of a causal relationship based on the study) is therefore high (Toshkov, 2016, p. 166-167). In a classical experiment participants are usually examined in a laboratory setting, in a survey experiment this is not necessary, which makes the survey experiment design more practical in collecting large amounts of data (Toshkov, 2016, p. 168). Large samples lead to a higher possibility of the data being generalizable over the population in consideration. The possibility of a high external validity and high statistical validity of the research is therefor present. The large sample size also allows the possibility of collecting additional data about the respondents (Baekgaard et al, 2015, p. 336).

In this research the dependent variable is *technocratic attitudes*. Additionally, experiments serve as useful designs for explanatory studies, since the existence of a real causal effect, X causes Y, can be tested when the researcher has control over the actual intervention of X on Y (Toshkov, 2016, p. 168-169). With the survey the technocratic attitudes of the citizens can be best measured after the treatment.

Earlier studies about the opinions of citizens towards European Union enlargement were also conducted with survey experiments (De Vreese & Boomgaarden, 2003; De Vreese & Schuck, 2006). When looking at these studies, the survey experimental design was successful in observing evaluations of respondents after being exposed to a treatment. Also, in framing studies, the experimental design is one of the designs that is mostly conducted to observe effects of media frames (Valkenburg, Semetko &

De Vreese, 1999; Nelson & Oxley, 1999; De Vreese & Boomgaarden, 2003; De Vreese & Schuck, 2006). With the combination of an experimental treatment and a survey, and the high chances of internal and external validity, this design seems to be the best approach to measure the effect of media frames on technocratic attitudes of citizens.

The design contains no pre-test, because the main focus of this study is on the differences between exposure to media frames (experimental groups) and exposure to no media frames (control group). Therefore, the results of the experimental groups and the control group will be compared with each other. The sample of respondents was randomly assigned into either one of the two experimental groups or the control group. The respondents of all groups were exposed to a vignette with a news message about the *Financial Supervisory Package* of the European Union. This is a package of measures to monitor financial markets and national institutions in order to prevent crises (europa.eu). The choice for a financial related subject for the vignette was, because of the fact that Euro related messages are most often framed by the media (De Vreese, Peter & Semetko, 2001, p. 117). The treatment of the experiment was that the vignettes of the two experimental groups contained two extra sentences at the end that served as the frame. The content of the vignettes will be further elaborated in the next paragraph.

4.3 Vignettes and survey

Earlier studies on factors that influence technocratic attitudes of citizens, focused on individual and country-level factors (Bertsou & Pastorella, 2017), educational factors (Putnam, 1977; Hibbing & Theiss-More, 2002; Coffe & Michels, 2014), political preference and political trust and satisfaction (Hibbing & Theiss-More, 2002).

In this study, however, media frames will be the main factor that will influence (or not) the attitudes of citizens, thus media frames will be the treatment of the experiment. The independent (treatment) variable that will cause an effect (or not) on the outcome (dependent) variable are media frames. The dependent variable is technocratic attitudes. The kinds of frames that are tested in this study are valenced frames. This is a certain form of framing a message in a either positive or negative way. As mentioned earlier, because the terms positive and negative are unclear terms, the messages of the vignettes will be framed as either a threat (negative frame) or as an opportunity (positive frame). This means that the influence of experts in the

European supervision of financial and national institutions will be framed as either a threat (threatening democracy) or as an opportunity (rational and effective decision-making). The choice for these values was based on that the literature on technocracy also gives these two contrasting images on technocracy. On the one hand a technocratic government or regime would benefit from decision-making that is based on rationality and scientific methods, but on the other hand the fact that experts are not democratically elected can lead to aversion among individuals.

All vignettes contain the same story, where only some sentences differ that serves as the treatment. Although the study is about technocratic attitudes, the term ‘*technocracy*’ will not be mentioned in the vignettes or survey questions, because this is a loaded term. The use of this word can bias the answers, because individuals could have a particular view about the term that may not be based on accurate information.

The vignettes in this study were formed as a news message from a Dutch newspaper. The message contained information about the Financial Supervisory Package, which is an actual policy and is implemented by the European Commission in 2011. Several economical experts designed this package of measures and the goal was to monitor the financial markets and national intuitions in order to prevent a financial crisis (europa.eu). The complete news message in the vignettes was as follows:

BRUSSELS- following the onset of the euro-crisis in 2008, the European Commission had set up a group of high-level economic experts to investigate how supervision on European financial markets can be fostered. The experts came up with a package of measures called the Financial Supervisory Package, which was implemented by the European Commission in 2011. The tasks to carry out the measures were delegated to three European authorities with all containing economical experts. These authorities had the power to draw up specific rules for national and financial institutions, develop technical standards, guidelines and recommendations, monitor how rules are being enforced and take action in emergencies.

Table 2: Design of the survey experiment

Group	Control group	Experimental group 1	Experimental group 2
Vignette	Neutral message (no additional sentences)	Threat frame	Opportunity frame

In table 2 the allocation of the respondents into the specific groups is illustrated. The experimental group that was exposed to the ‘*threat frame*’ read the full news message with two additional sentences at the end containing: ‘*The European Parliament, composed of democratically chosen politicians, was barely involved in this process. Therefore the opinions of European citizens had little influence on the content of the measures*’. The experimental group that was exposed to the ‘*opportunity frame*’ read the full news message with two additional sentences at the end containing: ‘*Experts with highly specialized knowledge were principally involved in this process. Because of this the measures were based on scientific insights and rational considerations*’. The control group was exposed to the ‘neutral news message’, which means that they read the original news message as described above. Their vignette contained no additional framed sentences, was relatively unbiased and objective as possible. The full text of experimental groups vignettes are attached in the appendix.

After reading the vignette the respondents gave their opinion on a list of six statements that embedded the dimensions of technocratic attitudes as conceptualized in the literature review. With these statements the technocratic attitudes were measured. The answer categories were ordered with a Likert five point one scale, whereby 5=strongly agree and 1=strongly disagree.

Finally, after answering the technocratic attitudes statements, the respondents had to answer three demographic questions about their age, gender and educational background, in order to draw a respondent profile of the sample. These factors were also measured in order to analyse if they have influence on the technocratic attitudes of the respondents. Four additional variables were included about respondents’ political preferences, media source use, trust in the European Union and their view about the performance of the European Union. These were also measured to draw a specific respondent profile, but more importantly to analyse correlations between these variables and technocratic attitudes. The media source use question was asked to test if the Eurobarometer (2017) results would correspond with this sample, and thus to observe if Dutch citizens actually use traditional media sources for obtaining European Union information.

Although the research question is not about the overall attitudes of citizens on the European Union and their political preferences, it is interesting to measure if these factors have an effect on technocratic attitudes, because other researchers’ results

showed that these factors do have influence on technocratic attitudes (Bertsou & Pastorella, 2017; Hibbing & Theiss-More, 2002). Additionally, in order to observe the strength and the scope of media frames effects, it is also interesting to observe if media frames have influence on these additional factors. The survey experiment was distributed online through Qualtrics.

4.4 Operationalization & measurement

In order to measure the technocratic attitudes of the respondents, six statements were formulated that cover the dimensions of technocratic attitudes as conceptualized in the literature review. Because this research is about the specific case of the European Union, the statements were based on European technocracy. Technocratic attitudes have an *actor* and a *method* dimension; actor refers to the individuals' preference for experts making the most important political decisions, instead of elected politicians. Method refers to the individuals' preference for important political decisions being based on scientific knowledge and rationality instead of ideology (Putnam, 1977, p. 385-387; Bertsou & Pastorella, 2017, p. 431).

In table 3 the statements and the dimensions they measured are formulated:

Table 3: Statements for measuring technocratic attitudes

Statement	Dimension
1. European policy must be made by democratic elected politicians.	Actor
2. Scientific consideration must weigh heavier than ideological considerations, in solving European problems.	Method
3. Scientists are better in solving European problems, because of their high level of knowledge, than politicians.	Actor
4. European politicians must be experts in the topics they make decisions about.	Actor
5. European decisions must always been rationally considered.	Method
6. The European Union will operate better when experts instead of politicians and citizens made political decisions.	Actor

The hypotheses of the research are:

H1: Exposure to a threat frame negatively affects attitudes towards European technocracy.

H2: Exposure to an opportunity frame positively affects attitudes towards European technocracy.

Negatively affected means that the respondent will probably not agree with the statements that are positive about expert involvement and decision-making based on scientific method (statements 2 till 6), but will probably agree with the first statement that is positive about elected politicians. Positively affected means that the respondent will probably agree with the statements that are positive about expert involvement and decision-making based on scientific method, but will probably disagree with the statement that is positive about elected politicians. The effects of media frames on technocratic attitudes can thus be measured by comparing the differences in agreement on the statements between the three groups.

After analysing the different technocratic attitudes among the groups, the additional control variables were used to make general conclusions, compare different respondent profiles and to compare the results of earlier studies with the results of this study.

Table 4: Control variables

Variable	Measurement
Age	Sample profile & effect
Gender	Sample profile & effect
Education	Sample profile & effect (Coffe & Michels, 2014).
Political orientation	Sample profile & effect (Hibbing & Theiss-More, 2002)
Media source use	Eurobarometer (2017)
Trust in EU	Effect (Bertsou & Pastorella, 2017)
Performance of EU	Effect

4.5 Manipulation check

To make sure the respondents actually got the experimental treatment and were affected by it, a question was included at the end of the technocratic attitudes measures. This question served as the manipulation check. Sometimes respondents do not read the vignette in full attention, therefore the manipulation check serves as an assurance that the treatment did really manipulated their technocratic attitudes (Beakgaard et al, 2015, p. 334). The respondents were asked to rate the news message they just had read as positive, negative or neutral about expert involvement. For the manipulation check to be successful, the respondents who were exposed to the opportunity frame had to fill in that the message was positive and the respondents

who read the threat frame had to answer that the message was negative about experts. With a Chi-square test the results of the manipulation check were analysed.

Table 5: Manipulation check frequencies

Do you consider the news message you just read positive, negative or neutral about experts?		Groups			Total
		Opportunity (Group 2)	Neutral (Control group)	Threat (Group 1)	
Positive	Count	53	22	17	92
	% within Groups	56.4%	21.8%	16.0%	30.6%
Negative	Count	4	4	45	53
	% within Groups	4.3%	4.0%	42.5%	17.6%
Neutral	Count	37	75	44	156
	% within Groups	39.4%	74.3%	41.5%	51.8%
Total	Count	94	101	106	301
	% within Groups	100.0%	100.0%	100.0%	100.0%

Overall the respondents answered correctly on the manipulation check question and this means they did get the manipulation. The majority of the respondents in the experimental group 1 (threat frame) answered negatively (42,4%) about the news message, and the majority of the respondents in experimental group 2 (opportunity frame) answered positively (56,4%) about the message. The majority of the respondents in the control group (neutral frame) answered that the message was neutral (74,3%) about experts.

However, four respondents in experimental group 2 answered negatively about the news message and seventeen respondents in experimental group 1 answered positively about the news message. Additionally, in experimental group 1 a great amount of respondents (41,5 %) answered that the news message was neutral about experts. The most important focus of the manipulation check is the answers of the two experimental groups, since these are the groups where the manipulation was included. The differences between the answers on the manipulation check for the two experimental groups were significant for this research. This means that the answers of the manipulation check on the control group are not particularly relevant, because this group did not receive the manipulation.

It would also mean that the four respondents in experimental group 2 and seventeen respondents in experimental group 1 had to be excluded. But, for this research the choice was made not to exclude these respondents, because in overall the manipulation check can be viewed as successful. The majority of the respondents in the experimental groups had answered correctly on the manipulation check question. Also, excluding 22 responses would not make significant differences in the outcomes of this research. For this research it is important that it is clear that the respondents in the specific groups answered differently on the manipulation check. If this was not the case, the manipulation check was not successful. This would happen if for example the majority of all respondents answered that the news message was positive, despite the fact that they had read a negatively framed or neutral message.

Several reasons for why the 22 respondents answered not correctly on the manipulation check could be that they did not read the vignette with full attention, or that they understood the vignette differently than it was supposed to be. It could be the case that they thought the vignette was positive instead of negative.

Also, the ability to recall the content of the news message could have been difficult for the respondents, because, as described in the literature review, the events happening at European Union level are far from the daily life experiences of the respondents. The information would may not be seen as personal and close to home for the respondents and that would have led to the difficulty in remembering and recalling the content of the vignette they were exposed to (Valkenburg, Semetko & De Vreese, 1999, p. 552-554).

Chapter 5

Results

5.1 Descriptive analyses

Before analysing the effects and relationships of the variables, first the descriptive statistics were observed. It is important to have a clear image of the sample, before delving deeper into more complex statistics. The descriptive analyses tables (tables 6 till 8.4) are included in the appendix.

Three responses were left out of the analyses, because two respondents did not answered all statements on technocratic attitudes and one respondent did not answered all additional questions. Since these measures are important for the analyses, the three responses were excluded, which reduced the total sample from 304 till 301 responses. However, for this research it is an important point to keep in mind that for some analyses the N-size was further reduced. In the analyses part with the additional variables (section 5.3, 5.4 and 5.5), a higher amount of responses were excluded, because these respondents did not answered one of the questions that measured the specific additional variable. But in the analysis of section 5.2 on the effects of media frames on technocratic attitudes, these respondents were not excluded, because in that analysis part the additional variables were not relevant. Section 5.2 only focuses on the answers on technocratic attitudes and the effects of media frames on them. Therefore, the N-size varies throughout the analyses and the size of the sample is mentioned for each analysis.

For measuring the technocratic attitudes after the treatment, the respondents had to answer six statements with a Likert 5 point 1 scale. Additionally, the last two questions about trust in the EU and performance of the EU were answered with the same type of scale. In order to make sure if these statements all measured the same values, which would mean that the questions are internal consistent, the Cronbrach's alpha was calculated. The technocratic attitudes statements show a consistent scale, because $\alpha = 0.708$. The first statement was reversed, because if respondents agreed with this statement they would score low on technocratic attitudes. This means that, after reversing the first statement, all statements on technocratic attitudes measure the

same value and in further analyses of this research the total answers on the statements could be combined as one value, namely technocratic attitudes.

The questions about trust in the EU and the performance of the EU also show a consistent scale, because $\alpha = 0.781$.

The respondents were randomly assigned into the three groups of the experiment. This led to the division of 107 respondents in experimental group 1 (threat frame), 96 respondents in experimental group 2 (opportunity frame) and 101 respondents in the control group (neutral message). The three groups are almost similar when looking at the demographic factors, political orientation and media use (tables 6 till 8.4 in appendix). There are no significant differences between the values of the groups. This means that the randomization was successful.

Table 8.5: Media use differences between groups

	Experimental group 1	Control group	Experimental group 2	Total
Television	87 82,1%	76 75,2%	67 71,3%	230
Radio	27 25,5%	23 22,8%	19 20,2%	69
Newspapers	69 65,1%	62 61,4%	55 58,5%	186
Social media	70 66%	63 62,4%	65 69,1%	198
Books	14 13,2%	21 20,8%	12 12,8%	47
Websites	28 26,4%	20 19,8%	22 23,4%	70
No where	0	0	0	0
Other	1 0,9%	1 1%	3 3,2%	5

Looking at table 8.5 the most frequently used media source for European Union information among the respondents is the television. This confirms the Eurobarometer (2017) results about media use of Dutch citizens for European Union information.

And since framing occurs most often in traditional media sources such as the television, the respondents of this research have a high possibility of been exposed to

framed news messages frequently. Notable is that Social Media serves as the second most used media source for European Union information. As mentioned in the introduction, fake news frequently circulates on the Internet. Although this is not directly related to this research, it is worth noting that it could be that the respondents who use Social Media for European Union information have a high possibility of consuming fake news more often.

5.2 Effect of media frames on technocratic attitudes

With an ANOVA analysis the effects of the media frames on technocratic attitudes were measured. With an ANOVA, the statistical influence of a categorical independent variable (threat frame and opportunity frame) on a dependent interval/ratio variable (technocratic attitudes) can be measured (De Vocht, 2013, p. 170). Because the Cronbach's Alpha for the technocratic attitudes statements was internal consistent, the answers of all statements were combined in one value which will be referred as 'technocratic attitudes'.

In table 9.1 the overall means of the responses on the technocratic attitudes are presented for the three groups. The answer scales were coded as: 1= totally disagree, 2=agree, 3=neutral, 4=agree and 5=totally agree. Respondents in experimental group 1 who were exposed to the threat frame answered on average more negatively to the statements, compared to respondents in experimental group 2 who read the opportunity frame. The overall mean of experimental group 1 is 3.0 and the mean of experimental group 2 is 3.5.

These means show that respondents in experimental group 1 often used the answer category 'neutral' or below, since neutral has the value of '3'. This group did barely answer with categories that had higher values than 'neutral', such as 'agree' or 'totally agree', because the mean is around 3. Respondents in experimental group 2 however, did use higher valued answer categories, such as 'agree' and 'totally agree', and that increased the mean scores of this group. Thus looking at the means for experimental group 1, the conclusion can be made that this group answered, relatively, less positive compared to experimental group 2.

Respondents in the control group answered less positive compared to experimental group 2, and more positive compared to experimental group 1. On an average this group mostly answered 'neutral' and 'agree'. Table 9.2 makes clear that the frames

did have a significant effect on technocratic attitudes of the respondents, because Sig=0. In this analysis the additional variables were not included and the N=301.

Table 9.1: Means Technocratic attitudes in groups. N=301

Dependent Variable: Technocratic attitudes

Groups	Mean	Std. Deviation
Threat (Group 1)	3.0733	.62105
Neutral (Control)	3.3622	.53888
Opportunity (Group 2)	3.5463	.61708
Total	3.3194	.62221

Table 9.2: Significance frames on technocratic attitudes

Dependent Variable: Technocratic attitudes

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	10.808 ^a	2	5.404	15.669	.000
Intercept	3312.234	1	3312.234	9603.423	.000
Condition_Groups	10.808	2	5.404	15.669	.000
Error	102.781	298	.345		
Total	3415.944	301			
Corrected Total	113.589	300			

5.3 Effects of additional variables on technocratic attitudes

In section 5.2 the results showed that the effects of media frames on technocratic attitudes were significant. In this section the additional variables (age, gender, education and political orientation) were included in the ANOVA analysis in order to observe if the relationship between media frames and technocratic attitudes is not spurious and to look if these additional variables have any influence or meaning for technocratic attitudes. In this analysis N=288, because of reasons described above. In table 10.1 is shown that the factors age, gender, education and political orientation do not have an effect on technocratic attitudes. Also the effects of the media frames still stays significant (Sig=000) and the only variable that influenced the technocratic attitudes. This means that the relationship between media frames and technocratic attitudes is not spurious. The additional variables do not have an effect on technocratic attitudes according to these results. These results do not correspond with earlier research on technocratic attitudes, which argued that political orientation and educational degree were two of the main influencers of technocratic attitudes (Hibbing & Theiss-More, 2002; Coffe & Michels, 2014, p. 8).

Table 10.1: Significance additional variables on technocratic attitudes

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	13.551 ^a	7	1.936	5.556	.000
Intercept	242.135	1	242.135	694.934	.000
Age	.312	1	.312	.895	.345
Gender	.320	1	.320	.919	.339
Education: HBO_dummy	.342	1	.342	.983	.322
Education: WO_dummy	.269	1	.269	.772	.380
Political orientation	.898	1	.898	2.578	.109
Condition_Groups	10.676	2	5.338	15.321	.000
Error	97.560	280	.348		
Total	3284.500	288			
Corrected Total	111.111	287			

The effects of the two other variables, trust in the EU and performance of the EU, were also analysed. In order to analyse if a respondents' trust in the European Union and its opinion on the performance of the European Union has influence on their technocratic attitudes, 37 responses of the 301 had to be excluded, because these respondents did not answered the questions. The table 10.1 is included in the appendix. When the trust variable is included, the analysis shows that trust in the European Union does not have an effect on the technocratic attitudes of the respondents, because Sig=0.351.

On the other hand the opinion of respondents on the performance of the European Union does have influence on technocratic attitudes (Sig= 0.002), but this is a less strong effect compared to the effect of media frames on technocratic attitudes, (taken into consideration that N=264 for this analysis). This fact however corresponds with the study of Bertsou and Pastorella (2017) where they found that more trust in the EU tend to lead to more positive technocratic attitudes. In their study this effect was not very strong, which is somewhat similar to the results of this research (Bertsou & Pastorella, 2017, p. 444-445). Table 10.2 presenting this analysis on the effects of trust in the EU and performance of the EU is included in the appendix.

5.4 Effects of media frames on Trust in the EU and Performance of the EU

In this part the effects of media frames on trust in the EU and the performance of the EU were measured.

Table 11.1 Significance variables on Trust in the EU

Dependent Variable: Trust in the EU

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	30.888 ^a	7	4.413	6.638	.000
Intercept	186.757	1	186.757	280.925	.000
Age	11.487	1	11.487	17.280	.000
Gender	.008	1	.008	.012	.913
HBO_dummy	1.215	1	1.215	1.828	.178
WO_dummy	1.087	1	1.087	1.636	.202
Political orientation	.647	1	.647	.973	.325
Condition_Groups	5.176	2	2.588	3.893	.022
Error	176.834	266	.665		
Total	3034.000	274			
Corrected Total	207.723	273			

a. R Squared = ,149 (Adjusted R Squared = ,126)

Table 11.2 Means Trust in EU in groups

Groups	Mean	Std. Deviation	N
Threat (Group 1)	3.0745	.89490	94
Neutral (Control)	3.1684	.90686	95
Opportunity (Group 2)	3.4118	.77604	85
Total	3.2117	.87229	274

For the effects of media frames of respondents' trust in the EU, the N=274. Looking at table 11.1, it is clear that age has a significant effect on respondents' trust in the EU, together with the media frames. Looking at the means of the responses of the several groups in table 11.2, it is clear that respondents who read the opportunity frame answered more positively on the trust variable, which means that they trust the EU more compared to respondents in experimental group 1 who read the threat frame.

Table 11.3: Significance variables on Performance of EU

Dependent Variable: Performance EU

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	18.899 ^a	7	2.700	4.421	.000
Intercept	146.780	1	146.780	240.339	.000
Age	5.958	1	5.958	9.756	.002
Gender	2.126	1	2.126	3.481	.063
HBO_dummy	.524	1	.524	.858	.355
WO_dummy	.012	1	.012	.019	.890
Political orientation	.022	1	.022	.036	.851
Condition_Groups	7.344	2	3.672	6.013	.003
Error	160.008	262	.611		
Total	2639.000	270			
Corrected Total	178.907	269			

a. R Squared = ,106 (Adjusted R Squared = ,082)

Table 11.4: Means Performance of EU in groups

Groups	Mean	Std. Deviation	N
Threat (Group 1)	2.8526	.82473	95
Neutral (Control)	3.0109	.79136	92
Opportunity (Group 2)	3.2169	.79707	83
Total	3.0185	.81553	270

For the analyses of the variable performance of the EU, the N=270. Table 11.3 shows that the respondents' age and the media frames also have a significant effect on this variable. Additionally, table 11.4 shows that respondents who read the opportunity frame think that the EU performs good, compared to respondents who read the threat frame.

5.5 Correlations

Finally, the correlations between all variables were analysed. Table 12 is the table that presents the correlations and is included in the appendix. The N-sizes for all variables are included in the table. The strength of positivity or negativity on trust in EU and performance of EU were measured and compared to the strength of positivity or negativity on technocratic attitudes. These results show that there is a reinforcing relationship between respondents' opinion on performance of the EU and their

technocratic attitudes. The more positive their technocratic attitudes the more positive their opinion on the performance of the EU and vice versa.

The more negative their technocratic attitudes, the more negative their opinion on the performance of the EU and vice versa.

These correlations also show the reinforcing relationship between reading the threat or opportunity frame and the individuals' technocratic attitudes. The effect of reading the threat frame has a stronger negative effect on the respondents' technocratic attitudes compared to the positive effect on a respondents' technocratic attitude after reading the opportunity frame. More clearly: the negative reaction of a respondent after reading the negatively framed message is statistically stronger, compared to the positive reaction of a respondent after reading the positively framed message. This is because Pearson's R for the opportunity frame group is: 0,239 and for the threat frame group: -0,288. The negative effect of the threat group is larger. This also means that the correlation between the opportunity frame and positive technocratic attitudes is positive and the correlation between the threat frame and negative technocratic attitudes is negative. There is no inverse relationship.

In the correlations table is also seen that respondents with a university degree have a negative correlation with technocratic attitudes compared to respondents with a HBO degree. But in the ANOVA's this effect is not significant. The only correlation that is significant in the ANOVA's is the type of frame.

Chapter 6

Conclusion and Discussion

6.1 Conclusion

This research was about the effects of media frames on technocratic attitudes of Dutch citizens. More specifically, the research was about their attitudes towards European Union technocracy, which led to the research question: *How does media framing affect Dutch citizens' attitudes towards European technocracy?*

The specific media frames in consideration were valenced frames, which are frames that portray an event either in a positive or a negative way. For this research, expert involvement in the European Union was either framed as a threat for democracy or as an opportunity for effective policy making. With the use of a survey experiment, the respondents were divided into two experimental and one control group and had to read a framed message. Afterwards, their technocratic attitudes were measured.

At first it is important to address that the results showed that the media frames were the only significant factors that affected the technocratic attitudes of the respondents. The additional factors, such as age, gender, education, political orientation and trust in the European Union, did not affect the technocratic attitudes of the respondents, which means that the goal of this research is achieved. The general goal of this research was to prove that media content, and not other factors, has much influence on one's opinion. Although individuals' opinion on the performance of the European Union did have a significant effect on their technocratic attitudes, this effect was less strong compared to the effect of media frames. Looking at the other way around, media frames also affected respondents' opinion about the performance of the EU.

Overall, based on the results of this research, media frames were the only factors that affected individuals' opinions. And looking at the correlations, a negatively framed news message led to a stronger negative effect, compared to the strength of a positive reaction on a positively framed news message. This result corresponds with discoveries of earlier studies on valence framing as described in the literature review, that negative information about a particular topic is weighted more heavily than positive information (Hallahan, 1999, p. 208).

The results confirm the two hypotheses that were formulated, based on earlier research on the effects of valenced frames. Hypothesis one was: *Exposure to a threat frame negatively affects attitudes towards European technocracy*. Respondents who read the news message where the European Parliament, and therefore the opinion of European citizens, were not involved in the process of the Financial Supervisory Package which only contained high level experts, had more negative attitudes towards technocracy, compared to respondents who read the opportunity frame. The first hypothesis is therefore confirmed.

Hypothesis two was: *Exposure to an opportunity frame positively affects attitudes towards European technocracy*. Respondents who were in the experimental group whom were exposed to the opportunity frame, read a news message where, thanks to the involvement of experts in the process of the Financial Supervisory Package, the measures were based on scientific insights and rational considerations. The technocratic attitudes of the respondents in this experimental group were significantly more positive compared to respondents who read the threat frame, and thus these results confirm hypothesis two. The valence-consistent shift for this research is confirmed, because positive framing led to favourable attitudes and negative framing to less favourable attitudes (Levin, Schneider & Gaeth, 1998, p. 160).

The results also show that the respondents in the control group score in between the two experimental groups, which means that they had less positive technocratic attitudes than experimental group 2 and less negative technocratic attitudes than experimental group 1.

Overall, the results show that the differences between the three groups on technocratic attitudes were not very large, because the mean scores were not extremely different. But when these three groups are compared with each other, there are relative differences between them. And these relative differences are enough to confirm the hypotheses. This is because, as described in the literature review, a frame is effective if the reader of the frame formulates significantly different opinions, compared to individuals who read another frame (Chong & Druckman, 2007, p. 105).

Finally, the answer of the research question (how does media framing affect Dutch citizens' attitudes towards European technocracy) is, that negative media framing negatively affects Dutch citizens' attitudes, and positive media framing positively affects their attitudes on European technocracy. The more positive the manipulation, the higher the scores on technocratic attitudes, and the more negative the manipulation, the lower the scores on technocratic attitudes.

6.2 Academic implications

The scientific relevance of this thesis was to observe how media frames have influence on individuals' technocratic attitudes. This factor was never studied before in earlier research, although the effects of media frames on opinions were frequently studied on other aspects of the European Union, such as enlargement. Based on earlier research, media content do have influence on the opinion formation of individuals. Media framing occurs in media outlet and media framing in its turn has influence on individuals' understanding about an event or situation (Price, Tewksbury & Powers, 1997, p. 482). Additionally, the specific type of framing that is called valence framing can affect the readers' opinions positively or negatively. Because of these factors, the importance of studying the effects of media frames on technocratic attitudes emerged. This research serves as a contribution to the specific field of technocratic attitudes, with a special focus on the influence of media frames on these attitudes.

The results of this research showed that only the frames had influence on the technocratic attitudes, and not the other additional factors that were measured. This is different than the results of other studies on technocratic attitudes. In other research the factors political orientation, political trust, political satisfaction, education, individual and country levels were important influencers of technocratic attitudes (Bertsou & Pastorella, 2017; Putnam, 1977; Hibbing & Theiss-More, 2002; Coffe & Michels, 2014). However, the results of this research showed that the opinions of respondents on the performance of the European Union also had a significant effect on technocratic attitudes, but this effect was not as much as the media frames. This does not necessarily mean that these earlier studies were wrong, it only means that for this research some of the earlier studied factors did not affected the technocratic attitudes.

Furthermore, this research also serves as a contribution to the study field of framing, especially for valence framing. The results confirm earlier results on the effects of valenced frames on individuals' perceptions and opinions. Additionally, the importance of media content on opinion formation of individuals is also confirmed with this research. The results on media use were also consistent with the results of the Eurobarometer (2017). Dutch citizens most often use the television for obtaining European Union information.

When looking at the research design and method, this research proved that the survey experimental design is a useful design for public administration. The design was successful in measuring the effects of media frames on technocratic attitudes and lived up to the expectations. Other factors that could influence technocratic attitudes were excluded, so that only the effects of media frames could be measured. Therefore the survey experimental design is a recommended design for future research in public administration.

6.3 Practical implications

For the practical implications of this research it is first important to understand the goals of framing. Journalists or other kind of communicators use frames in order to influence the opinions of readers. Their goal is to change the beliefs of the audience about the subject in the framed message, and more importantly, to let the audience think about the subject the same way as the communicator thinks (Nelson, Oxley & Clawson, 1997, p. 225). As was aimed in the introduction, the results of this research can serve as a proof and a warning that media content can influence one's opinion. This is concerning, because media are not always truthful about what they write, which is for example the problem with fake news. And therefore the media are not always reliable sources for information. It is important that citizens critically assess the media content they are consuming. This is especially the case for information about the European Union. As mentioned before, technocracy in the European Union is most often portrayed as very negative. But according to earlier research, the European Union does not actually have a technocratic structure in the most pure form. But the image of the European Union is mostly one of 'Eurocrats' or bureaucrats who decide everything about the European Union. For these reasons, this research additionally serves as an eye opener for individuals that the portrayal of the European Union by the media is not always necessarily reliable.

6.4 Study limitations

This research has some methodological limitations that are important to discuss. The sample of the research is not very large, when comparing it to the population of the research. The sample contains 304 respondents and this is not enough to make a generalizable conclusion on all adult Dutch citizens. Additionally, the sample is an obvious convenience sample since the majority is female, younger than 31 years old and high educated. This could make the external validity of the research questionable. As was indicated in the results analyses, some respondents did not answer all survey questions. This led to different N-sizes in the analyses. The choice was made to only exclude three responses, because these missed either all answers on the technocratic attitudes statements or all answers on the additional questions. The other incomplete responses were not excluded, because these were still valuable for the analyses. Therefor the sample sized varied among several analyses and that could have had complications for the consistency of the analyses.

The research was distributed via an online survey website and the responses were anonymous. The anonymity protected the identity of the respondent, but on the other hand made it impossible to trace back if the respondent answered truthfully on the demographic factors. It is also unclear who actually filled in the survey, because the link was accessible for everyone with Internet access. The survey was intended for Dutch citizens, but it is not traceable if actually only Dutch citizens filled in the survey. The amount of non-response on some questions could also be a consequence of the fact that the survey was distributed online. There was no interviewer present to help the respondents with interpreting the questions if they had difficulties with understanding it. This could have led to the unanswered questions. Finally, it could be the case that respondents did not understood much about what was written in the vignette or in general do not know much about the European Union and expert involvement. This possibility could have led to respondents answering 'neutral' on most of the statements that measured the technocratic attitudes.

6.5 Discussion

For future research on studying the effects of media frames on technocratic attitudes, some recommendations can be made. The same research can be conducted with a larger sample in order to increase the external validity of the results. Although there are no clear scientific rules on sample sizes, in order to generalize results on a population such as all adult Dutch citizens, a larger sample than 304 respondents is highly recommended. An especially important point is that the sample must be more diverse compared to the sample of this research. The sample of this research was clearly a convenience sample with a majority of female and high-educated respondents between 18 and 30 years old, which could have had implications for the results. For future research it is interesting to have a sample that is evenly distributed among gender, age and educational factors.

Another recommendation for future research is to focus on other types of frames. This research focused on straightforward negative or positive frames. More complex types of frames may lead to other results. Semantic framing is a way of framing where terms in a message are phrased in alternative words; this type of framing can also be tested on technocratic attitudes. It could be done by for example using two vignettes about the same issue and outcome where in one vignette the words are very enthusiastic about expert involvement and in the other more sober. Other forms of valenced frames can also be tested for future research, such as Risky choice framing or goal framing. These kinds of frames portray a situation more as a loss or gain game, which could lead to vignettes with expert involvement as a gain or loss and afterwards the preferences of the respondents can be measured.

Furthermore, in this research the type of expert involvement of economic experts were used for the vignettes. This could have also played a role in the technocratic attitudes of the respondents. Like discussed in the literature review, the amount of power a technocrat can acquire highly depends on the position of the institution he or she works for. Only institutions with much influence in policymaking will have the chance to be technocratic (Centeno, 1993, p. 314). The organisation in the vignettes was relatively powerful, because of its supervisory tasks on financial and governmental institutions. It would be interesting if the technocratic attitudes of respondents would differ or stay the same when the organisation was of another kind of issue of the European Union, such as environmental or healthcare issues.

Individuals may view economical experts different than environmental experts. For example, citizens would maybe think that economical experts must decide more about economical matters of the European Union, because citizens may have more trust in the experts' knowledge about economical affairs and have less trust in the knowledge of European politicians about this topic. This might be different about other kind of experts, such as environmental experts.

The effects of media frames on the other aspects of the European Union can also be studied with a similar research design as this research. The additional variables of trust in the EU and the performance of the EU were measured in this research. These aspects can be further elaborated in order to measure the effects of media frames on them.

Finally, a similar design as this research could be used to study the effects of fake news on technocratic attitudes of citizens. Fake news is a highly discussed problem recently among politicians and journalists. Research on fake news is relatively young, since it is methodical difficult to measure its effects. However, fake news has some similar features as framing, and could be studied in a similar way with an experimental design.

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Appendix

1. English versions of vignettes

Control group: Vignette without treatment (neutral message)

BRUSSELS- Following the onset of the euro-crisis in 2008, the European Commission had set up a group of high-level economic experts to investigate how supervision on European financial markets can be fostered. The experts came up with a package of measures called the Financial Supervisory Package, which was implemented by the European Commission in 2011. The tasks to carry out the measures were delegated to three European authorities with all containing economical experts. These authorities had the power to draw up specific rules for national and financial institutions, develop technical standards, guidelines and recommendations, monitor how rules are being enforced and take action in emergencies.

Experimental group 1: Expert involvement as a threat (threat frame):

BRUSSELS- Following the onset of the euro-crisis in 2008, the European Commission had set up a group of high-level economic experts to investigate how supervision on European financial markets can be fostered. The experts came up with a package of measures called the Financial Supervisory Package, which was implemented by the European Commission in 2011. The tasks to carry out the measures were delegated to three European authorities with all containing economical experts. These authorities had the power to draw up specific rules for national and financial institutions, develop technical standards, guidelines and recommendations, monitor how rules are being enforced and take action in emergencies. The European Parliament, composed of democratically chosen politicians, was barely involved in this process. Therefore the opinions of European citizens had little influence on the content of the measures.

Experimental 2: Expert involvement as an opportunity (opportunity frame):

BRUSSELS- Following the onset of the euro-crisis in 2008, the European Commission had set up a group of high level economic experts to investigate how supervision on European financial markets can be fostered. The experts came up with a package of measures called the Financial Supervisory Package, which was

implemented by the European Commission in 2011. The tasks to carry out the measures were delegated to three European authorities with all containing economical experts. These authorities had the power to draw up specific rules for national and financial institutions, develop technical standards, guidelines and recommendations, monitor how rules are being enforced and take action in emergencies. Experts with highly specialized knowledge were principally involved in this process. Because of this the measures were based on scientific insights and rational considerations.

2. Dutch versions of vignettes (used for the research)

Controle groep: vignet zonder treatment (neutraal bericht)

BRUSSEL- Naar aanleiding van het ontstaan van de Euro-crisis in 2008, heeft de Europese Commissie een groep economische experts ingesteld om te onderzoeken hoe het toezicht op de Europese financiële markten verbeterd kan worden. De experts hebben een pakket maatregelen bedacht met de naam ‘Financieel Toezichtpakket’, dat door de Europese Commissie is ingevoerd in 2011. De maatregelen werden uitgevoerd door economische experts werkzaam in drie Europese autoriteiten. Deze autoriteiten waren bevoegd om onder andere: specifieke regels voor banken en overheidsinstanties op te stellen, technische normen, richtlijnen en aanbevelingen te ontwikkelen en toe te zien op de naleving van deze maatregelen.

Experimentele groep 1: expert invloed als een dreiging (threat frame)

BRUSSEL- Naar aanleiding van het ontstaan van de Euro-crisis in 2008, heeft de Europese Commissie een groep economische experts ingesteld om te onderzoeken hoe het toezicht op de Europese financiële markten verbeterd kan worden. De experts hebben een pakket maatregelen bedacht met de naam ‘Financieel Toezichtpakket’, dat door de Europese Commissie is ingevoerd in 2011. De maatregelen werden uitgevoerd door economische experts werkzaam in drie Europese autoriteiten. Deze autoriteiten waren bevoegd om onder andere specifieke regels voor banken en overheidsinstanties op te stellen, technische normen, richtlijnen en aanbevelingen te ontwikkelen en toe te zien op de naleving van deze maatregelen.

Het Europees Parlement, bestaande uit democratisch gekozen politici, was amper betrokken bij dit proces. Daardoor hebben de opvattingen van Europese burgers weinig invloed gehad op de inhoud van de maatregelen.

Experimentele groep 2: expert invloed als een kans (opportunity frame)

BRUSSEL- Naar aanleiding van het ontstaan van de Euro-crisis in 2008, heeft de Europese Commissie een groep economische experts ingesteld om te onderzoeken hoe het toezicht op de Europese financiële markten verbeterd kan worden. De experts hebben een pakket maatregelen bedacht met de naam 'Financieel Toezichtpakket', dat door de Europese Commissie is ingevoerd in 2011. De maatregelen werden uitgevoerd door economische experts werkzaam in drie Europese autoriteiten. Deze autoriteiten waren bevoegd om onder andere specifieke regels voor banken en overheidsinstanties op te stellen, technische normen, richtlijnen en aanbevelingen te ontwikkelen en toe te zien op de naleving van deze maatregelen. Experts met veel specialistische kennis waren voornamelijk betrokken bij dit proces. Hierdoor zijn de maatregelen op basis van wetenschappelijke inzichten en rationele afwegingen gemaakt.

3. English version survey questions

Give your opinion on the following statements. You can answer with: 1= totally disagree, 2= disagree, 3=neutral, 4=agree, 5=totally agree.

1. European policy must be made by democratic elected politicians
2. Scientific consideration must weigh heavier than ideological considerations, in solving European problems.
3. Scientists are better in solving European problems, because of their high level of knowledge, than politicians.
4. European politicians must be experts in the topics they make decisions about.
5. European decisions must always been rationally considered.
6. The European Union will operate better when experts instead of politicians and citizens made political decisions.
7. Do you consider the news message you just read, positive, negative or neutral about experts?
 - A. Positive
 - B. Negative
 - C. Neutral

8. What is your age?
- a. 18-30
 - b. 31-40
 - c. 41-50
 - d. 51-60
 - e. 61+
9. What is your gender?
- a. Female
 - b. Male
 - c. Rather not say
10. What is the highest level of education you received a degree for?
- a. Elementary school
 - b. High school
 - c. MBO
 - d. HBO
 - e. University
11. The following question is about your political preference towards economic policies. On a scale of 0 till 10, where '0' stands for 'extreme left' and '10' stands for 'extreme right', where would you place yourself, based on your political preferences on economic policies? Extreme left means that you prefer a government that has a great role in society, with relative high taxes and much regulation. Extreme right means that you prefer a government that has a small role in society, with relative low taxes and less regulation.
12. Which sources do you use to obtain information about the European Union?
You can choose more choices.
- a. Television
 - b. Radio
 - c. Newspapers (including websites of news papers)
 - d. Social media
 - e. Books
 - f. Websites (excluding websites of news papers and social media)
 - g. From no where
 - h. Other

13. How much trust do you have in the European Union? You can answer on a scale of 1 to 5 where '1' stands for 'no trust' and '5' for 'very much trust'.
14. What do you think of the performance of the European Union? You can answer on a scale of 1 to 5 where '1' stands for 'very bad' and '5' stands for 'very good'.

4. Dutch version survey questions (used for the research)

Geef uw mening over de volgende stellingen. U kunt antwoorden met: 1= helemaal mee oneens, 2=oneens, 3=neutraal, 4=eens, 5= helemaal mee eens.

1. Europees beleid moet door democratisch gekozen politici worden gemaakt.
2. Om Europese problemen op te lossen, moeten wetenschappelijke inzichten zwaarder wegen dan ideologische beschouwingen.
3. Wetenschappers zijn dankzij hun hoge mate van kennis beter in het oplossen van Europese problemen dan politici.
4. Europese politici moeten experts zijn in de onderwerpen waar ze besluiten over maken.
5. Besluiten die door de Europese Unie worden gemaakt, moeten altijd rationeel overwogen zijn.
6. De Europese Unie zal beter functioneren als de politieke beslissingen door experts worden genomen, in plaats van door politici en burgers.
7. Vindt u dat het nieuwsbericht dat u net heeft gelezen positief, negatief of neutraal was over experts?
 - A. Negatief
 - B. Positief
 - C. Neutraal
8. Wat is Uw leeftijd?
 - a. 18-30
 - b. 31-40
 - c. 41-50
 - d. 51-60
 - e. 61+
9. Wat is Uw geslacht?
 - a. Vrouw
 - b. Man

- c. Zeg ik liever niet
10. Wat is het hoogste niveau van opleiding waarvan u een diploma heeft?
- a. Basisschool
 - b. Middelbare school
 - c. Middelbaar Beroepsonderwijs
 - d. Hoger Beroepsonderwijs
 - e. Universiteit
11. De volgende vraag gaat over uw politieke voorkeur ten opzichte van economisch beleid. Op een schaal van 0 tot 10 waarbij '0' staat voor 'uiterst links' en '10' staat voor 'uiterst rechts', waar plaats u zich dan qua politieke voorkeur over economische beleid? Uiterst links betekent dat u wilt dat de overheid een zeer grote rol heeft, met relatief hoge belastingen en veel regulering. Uiterst rechts betekent dat u wilt dat de overheid een zeer kleine rol heeft, met relatief lage belastingen en weinig regulering.
12. Via welke van de onderstaande bronnen krijgt u meestal informatie over de Europese Unie? U kunt meerdere opties aanvinken.
- a. Televisie
 - b. Radio
 - c. Kranten (inclusief websites van kranten)
 - d. Sociale media
 - e. Boeken
 - f. Websites (exclusief websites van kranten en sociale media)
 - g. Nergens vandaan
 - h. Anders
13. Hoeveel vertrouwen heeft u in de Europese Unie? U kunt antwoorden op een schaal 1 tot 5 waarbij '1' staat voor 'geen vertrouwen' en '5' staat voor 'veel vertrouwen'.
14. Vind u dat de Europese Unie goed functioneert? U kunt antwoorden op een schaal 1 tot 5 waarbij '1' staat voor 'zeer slecht' en '5' staat voor 'zeer goed'.

SPSS tables for results analyses

Table 6: Missing values

		Frequency	Per cent	Valid Percent	Cumulative Percent
Valid	Selected	301	99.0	100.0	100.0
Missing	System	3	1.0		
Total		304	100.0		

Table 7: Number of respondents in groups

Sample N=304	Experimental group 1	Experimental group 2	Control group	Total
Frequency	107	96	101	304
Per cent	35,2 %	31,6%	33,2%	100%

Table 8.1: Age differences between groups

What is your age?		Groups			Total
		Threat (Group 1)	Neutral (Control)	Opportunity (Group 2)	
18-30	Count	68	62	65	195
	% within Groups	64.2%	61.4%	69.1%	64.8%
31-40	Count	20	20	13	53
	% within Groups	18.9%	19.8%	13.8%	17.6%
41-50	Count	8	10	11	29
	% within Groups	7.5%	9.9%	11.7%	9.6%
51-60	Count	9	6	5	20
	% within Groups	8.5%	5.9%	5.3%	6.6%
61+	Count	1	3	0	4
	% within Groups	0.9%	3.0%	0.0%	1.3%

Table 8.2: Gender differences between groups

What is your gender?		Groups			Total
		Threat (Group 1)	Neutral (Control)	Opportunity (Group 2)	
Male	Count	29	38	39	106
	% within Groups	27.9%	38.0%	41.9%	35.7%
Female	Count	75	62	54	191
	% within Groups	72.1%	62.0%	58.1%	64.3%

Table 8.3: Educational degree differences between groups

What is the highest level of education you received a degree for?		Groups			Total
		Threat (Group 1)	Neutral (Control)	Opportunity (Group 2)	
High school	Count	11	5	8	24
	% within Groups	10.4%	5.0%	8.6%	8.0%
MBO	Count	21	19	12	52
	% within Groups	19.8%	18.8%	12.9%	17.3%
HBO	Count	28	31	33	92
	% within Groups	26.4%	30.7%	35.5%	30.7%
University	Count	46	46	40	132
	% within Groups	43.4%	45.5%	43.0%	44.0%
Total		106	101	93	300
Total		100.0%	100.0%	100.0%	100.0%

Table 8.4: Political orientation differences between groups

Political orientation towards economic preferences		Groups			Total
		Threat (Group 1)	Neutral (Control)	Opportunity (Group 2)	
Left (1-3)	Count	26	23	17	66
	% within Groups	25.7%	23.5%	18.9%	22.8%
Centrum (4-6)	Count	48	47	47	142
	% within Groups	47.5%	48.0%	52.2%	49.1%
Right (7-10)	Count	27	28	26	81
	% within Groups	26.7%	28.6%	28.9%	28.0%

Table 10.2: Effect additional variables on Technocratic attitudes

Dependent Variable: Technocratic attitudes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	82,485	1	82,485	253,475	,000
Age	,432	1	,432	1,343	,248
Gender	,007	1	,007	,022	,882
Education HBO_dummy	,110	1	,110	,341	,560
Education WO_dummy	,472	1	,472	1,466	,227
Trust EU	,281	1	,281	,874	,351
Political orientation	1,066	1	1,066	3,311	,070
Condition Group	2,263	2	1,132	2,143	,139
Error	12,879	24,386	,528 ^c		
Total	1,696	4	,424	,443	,775

Table 12: Correlations

Correlations											
		Technocratic attitude	Trust in EU	Performance EU	Opportunity frame	Threat frame	Age	Gender	Education (1 = HBO)	Education (1 = WO)	Political orientation
Technocratic attitude	Pearson Correlation	1	.063	.187**	.239**	-.288**	.050	.027	.110	-.072	-.075
	Sig. (2-tailed)		.292	.002	.000	.000	.385	.642	.058	.213	.202
	N	301	284	281	301	301	301	297	300	300	293
Trust in EU	Pearson Correlation	.063	1	.643**	.141*	-.124*	.303**	.054	-.184**	.225**	-.102
	Sig. (2-tailed)	.292		.000	.018	.036	.000	.365	.002	.000	.090
	N	284	284	274	284	284	284	280	284	284	278
Performance EU	Pearson Correlation	.187**	.643**	1	.142*	-.151*	.234**	.144*	-.097	.105	-.019
	Sig. (2-tailed)	.002	.000		.017	.011	.000	.017	.105	.080	.759
	N	281	274	281	281	281	281	277	281	281	274
Opportunity frame	Pearson Correlation	.239**	.141*	.142*	1	-.497**	.062	-.088	.070	-.013	.041
	Sig. (2-tailed)	.000	.018	.017		.000	.287	.130	.227	.818	.480
	N	301	284	281	301	301	301	297	300	300	293
Threat frame	Pearson Correlation	-.288**	-.124*	-.151*	-.497**	1	-.010	.120*	-.068	-.009	-.022
	Sig. (2-tailed)	.000	.036	.011	.000		.866	.039	.239	.877	.702
	N	301	284	281	301	301	301	297	300	300	293
Age	Pearson Correlation	.050	.303**	.234**	.062	-.010	1	.223**	-.164**	.284**	-.072
	Sig. (2-tailed)	.385	.000	.000	.287	.866		.000	.004	.000	.218
	N	301	284	281	301	301	301	297	300	300	293
Gender	Pearson Correlation	.027	.054	.144*	-.088	.120*	.223**	1	-.006	.050	-.009
	Sig. (2-tailed)	.642	.365	.017	.130	.039	.000		.914	.387	.878
	N	297	280	277	297	297	297	297	296	296	289
Education (1 = HBO)	Pearson Correlation	.110	-.184**	-.097	.070	-.068	-.164**	-.006	1	-.590**	.113
	Sig. (2-tailed)	.058	.002	.105	.227	.239	.004	.914		.000	.053
	N	300	284	281	300	300	300	296	300	300	292
Education (1 = WO)	Pearson Correlation	-.072	.225**	.105	-.013	-.009	.284**	.050	-.590**	1	-.138*
	Sig. (2-tailed)	.213	.000	.080	.818	.877	.000	.387	.000		.019
	N	300	284	281	300	300	300	296	300	300	292
Political orientation	Pearson Correlation	-.075	-.102	-.019	.041	-.022	-.072	-.009	.113	-.138*	1
	Sig. (2-tailed)	.202	.090	.759	.480	.702	.218	.878	.053	.019	
	N	293	278	274	293	293	293	289	292	292	293
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											