Angry Voters
The influence of anger on voting behavior in the Netherlands

Thesis MA Political Science
Raimon Leeuwenburg (s0316504)

June 10, 2013

Leiden University, Department of Political Sciences
First Supervisor: Dr. Michael F. Meffert
Second Supervisor: Dr. Rebekah K. Tromble
Word count (excluding abstract):

Abstract

Addressing a shortcoming in theories on the influence of emotion on political decision-making this thesis aims to explore the distinct effects of anger on voting behavior in the Netherlands. The biological origin of emotion and its function in individuals and social interactions, specifically the influence on decision-making processes, are justification for including emotion in a model of vote choice. However, this inclusion should correspond with the biology and theoretical predictions of emotional effects. The most complete and authoritative model which includes emotion is the Theory of Affective Intelligence (AI). Because in the operationalization of anxiety fear and anger are combined, the theory is flawed in this respect. This is an important issue to address since it can have a significant impact on predictions from the model. Predictions that can be used to solve the ongoing debate on the personalization of Dutch politics by pointing to the different circumstances under which voters rely on different decision-making strategies.

Using a a online survey to collect data, which included items on candidate traits, policy preferences and ideology, party attachments and background items, the hypotheses for the specific effects of anger were tested in a model based on logistic regression. The survey included a manipulation of the emotional state. Results show some distinct influences of anger and fear. Fear increases the relative weight candidate traits in a vote-choice, whereas anger increases the weight of ideological distance and policy preferences. Furthermore, party-attachments are weak and knowledge seems to have no effect.

Table of Contents

Preface

Since the early years of high school I have been fascinated with the question "Why do people act the way they do?". This question is as simple as it is complicated to answer. In the realm of politics I have reframed this question to "Why do people vote the way they do?". During the work on the Bachelor thesis I became increasingly interested in the influence of emotions. In the Netherlands much attention had been devoted to candidate evaluations, party bonds and preferences on policy or issues. Ideology was losing ground, unprecedented election results and even political murder sparked heavy debates on the validity of voting models.

What struck me was the complete absence of the human factor in them. How can you predict what people will do if you omit the fact that they are people? In the bachelor thesis I found some first clues of the workings of emotion on the vote-decision. With the help of an inspiring professor Tereza Capelos and co-student Sanne Rijkhoff I even got to present follow-up results at two conferences.

Shortly after that I got to experience the strong effects of emotion personally. For a couple of years I suffered from episodes of depression. Eventually this crippled my professional and personal life and caused me never to finish the MA Political Science. Untill now that is. This thesis marks the end of that period. Writing it brought back the memories of depression and sometimes it was painful to go through them. My very sweet girlfriend, Francisca Put, has supported me enormously. She has been there in the run up to the MA and has sometimes put my needs before her own. I deeply love her for that. Here I also want to thank the University, and especially Mrs. Alma Caubo for enabling me to finish this thesis now. A Last word of gratitude I want to give to my thesis supervisor Mr. Michael Meffer who had to constantly remind me that should not spend too much thought on the biology of emotion, but the political implications. I hope this thesis reflects my gratitude sufficiently.

Researching emotion in Political Science

A new direction of research in Political Science

Emotions have undeniably an effect on politics and voting behavior. New directions of research are unraveling its workings. An important development is made in applying knowledge from other fields of research (neurology, sociology and psychology) to solve puzzles in political science. This thesis is an exploratory study on the specific effects of anger on Dutch electoral behavior. In the United States (US) emotions in politics have already been studied extensively. One direction of research, conducted mainly by George Marcus and his colleagues, focuses on negative emotionality and its effects on voting behavior (Marcus et al., 1988, 2000, 2005, 2006 and MacKuen et al., 2006, 2010). In the resulting theory of Affective Intelligence negative emotional responses are represented as anxiety. The emotion anger does not seem to play a significant role in this theory. At the same time it is an important component of Marcus' operationalization of anxiety. Later studies have looked at the role of anger more explicitly (starting with Huddy et al., 2005; Isbell et al., 2006; also Valentino, Brader et al., 2010 and MacKuen et al., 2010).

In the Netherlands the effects of emotions on politics have not been studied as much as in the US. There have been some exploratory studies on emotions in Dutch politics (Rosema, 2006, 2007; Capelos et al., 2007). In addition there have been some scholars who have made recommendations to give more thought to feelings in Dutch politics (e.g. Beunders, 2002; Dijksterhuis, 2007; and Verhoeven, 2006). Capelos et al. (2007) provided support for the applicability of the theory of Affective Intelligence, which solely relies on data from US elections, in a multiparty system such as the Netherlands. This is confirmed by Rosema's 2007 study. What remains uninvestigated in the Netherlands are the distinct effects of fear and anger, as opposed to a single measure of anxiety.

1

Research question and its contribution

The psychologist Drew Westen (2007) suggests that anger might be a third dimension in addition to negative (anxiety) and positive (enthusiasm) emotionality. The intent of this study is to test this claim empirically. It explores the effects of anger on voting behavior separately from the feeling of anxiety or fear already incorporated in the model put forth by Marcus et al.. Capelos et al.. (2007) findings confirm the predicted role of anxiety in regulating the way in which Dutch citizens reach their voting decision. Because Dutch attachments are less rigid voters have the option to switch parties. This results in quickly dissipating anxiety (Capelos et al., 2007: 7-8). At the same time the system is more party oriented than candidate oriented (Rosema, 2007).

In the Netherlands voters feel both afraid and angry towards leaders, but unlike the American voters fear is low and anger is high (Capelos et al., 2007). Since anger and fear have distinct effects (Huddy et al., 2005; Isbell et al., 2006; MacKuen et al., 2010; Valentino, Brader et al., 2010) a model on voting behavior combining both negative emotions in a single dimension can have serious limitations. This study therefore focuses on the question: What is the distinct effect of anger on voting behavior in the Netherlands?

The theory of Affective Intelligence provides the stepping stone for this thesis. The focal point shifts to anger as a separate independent variable in a similar model as constructed by Marcus et al.. and later Capelos et al.. This way the empirical operationalization of the Theory of Affective Intelligence can be made more congruent with theoretical description. Also, the extension to a multiparty parliamentary system is tested and solidified. The main scientific contribution is made in exploring and testing the distinct effects of anger on voting behavior in a multiparty system.

In the Netherlands voting behavior has traditionally been explained by two major cleavages, religious and socio-economic. Since the 1960's traditional models explaining Dutch voting behavior have been losing explanatory significance (Andeweg and Irwin, 2002: 69). At the same time the

2

increased visibility of the 'lijsttrekker', the top candidate on a party-list, during election campaigns seems to indicate an increase in candidate centered voting (Andeweg and Irwin, 2002: 77). The Fortuyn revolution was remarkable and sparked debates on whether Dutch voters voted for parties or candidates and whether traditional models were still representative of the Dutch electorate (Holsteyn and Irwin, 2003: 48).

Where Fortuyn's movement eventually collapsed after his assassination, Geert Wilders has in recent years caused an even greater shift in parliamentary seats which for now seems to be more long-lasting. Wilders does make significantly more use of predicting doom scenarios and insulting of opponents than members of the traditional parties (Mulder, 2009: 81). This indicates Wilders indeed does try to evoke the emotions of fear and anger in his potential voters. This study will point to differing conditions under which either party based voting or more personified politics explain voting behavior and will offer a possible explanation for increasingly volatile Dutch election results by looking at the specific effects of anger on the vote decision.

Emotional brains

The origins of human emotion in the brain

Emotions were considered to be nothing more than social constructs for a long time. Constructionism highlights the naming and labeling of arousing feelings, and puts most emphasis on the naming of the behavior associated with these (Turner and Stets, 2005: 2). This focus on the result omits the causes. Despite the reluctance by some political scientists to assign value to the biological mechanisms involved, focusing merely on empirical or experimental results creates the risk of invalid theory formation. "We see that in all social settings (…) human biology is driving the arousal and flow of emotions" (Turner and Stets, 2005: 4). The human brain is a complicated biological computer made up of different types of neuron cells that perform separate tasks. When picturing a cross-section of the brain from the outside towards the middle the neocortex or cerebral cortex, the subcortical areas (which include amygdala, thalamus and hypothalamus) and the brainstem (including the cerebellum) can be seen.

As early as in the 19th century Hughlings Jackson developed a revolutionary model of the human brain based on Darwin's theory of evolution. In this model Jackson distinguished three separate hierarchical levels. He labelled these the archi-, paleo- and neobrain. Remarkably, the basic premise of Hughlings Jackson's 19th century model is still valid today. As a rule of thumb these three levels are attributed the functions of respectively arousal, emotion and cognition (Cranenburgh, 1997: 150).

In the archibrain the most basic functions of the brain are found. It holds the structures that regulate basic arousals (e.g. hunger or thirst), control reflexes and posture. The archibrain is formed by the spinal cord, the brainstem and the early parts of the cerebellum (Cranenburgh, 1997: 152). These not only are related to the senses, but also create activation of emotion through connections

4

to the amygdala and the hypothalamus (Westen, 2007: 62). The cerebellum acts as a control station that lets signals through when out of routine action is required. It also registers whether the resulting action has the desired effect.

Table 1: Overview of brain structures and corresponding functions

Level	Structures	Function
Archibrain	Spinalcord Brainstem Early cerebellum	Basic arousal Reflexes and posture Life support Self preservation
Paleobrain	Cerebellum Limbic system Hypothalamus Amygdala	Generating and identifying emotions Learning routines Evaluation of behavior and environment Fear center
Neobrain	Neocortex, Neocerebellum, Thalamus Connections between different brain structures	Social interaction Language Complex skills Operating in changing environments Evaluating functions of the paleo- and archibrain.

The more recently developed parts of the cerebellum are considered to be part of the paleobrain. In the paleobrain the *hypothalamus* and the *amygdala* are also located. These brain structures play an important role in human emotions and specifically those that are important for survival (such as fear). These structures are also involved in learning routines; complex behavior that is not controlled by conscious thought. The main purpose of these routines is to relieve the brain of excess workload in order to focus on the task at hand. This enables people to use the neobrain at optimal capacity to consciously perform tasks in which they can not rely on routine (Cranenburgh, 1997: 153). It is this function that Marcus and MacKuen (1993) identiefied as critical

for political decisionmaking.

The paleobrain, or *subcortical areas*, form the gateway between input and resulting output of the brain. All sensory inputs first go to the hypothalamus, which after processing sends signals out to the appropriate regions. Because subcortical areas are closer to the hypothalamus, these areas are activated before the appropriate sensory area in the neocortex is stimulated. This is why people can experience an emotional reaction even before being consciously aware of a stimulus (Turner and Stets, 2005: 5).

The *amygdala* is the subcortical center for fear responses and like the hypothalamus is also located in the subcortical area of the brain. In the amygdala fear and anger are generated. It also holds areas for pleasure. This allows people to generate complex emotional states with positive and negative elements (Turner and Stets, 2005: 7). The amygdala is thus involved in many emotional processes. Most importantly it links feelings of fear to experiences (Westen, 2007: 50-62).

Emotional stimuli are routed by the amygdala to the neocortex, which contains the brain areas responsible for rational thought. This creates interplay between feelings and thoughts (Turner and Stets, 2005: 7), or in other words between emotionality and rationality. The *neocortex* sits on top of the older brain structures and envelopes them. The most recently developed functions and conscious thought are located here. These include social interaction, using language, complex skills, operating in changing environments and even evaluating the effectiveness of the paleo- and archibrain (Turner and Stets, 2005: 5).

Expanding the understanding of emotion in the brain

Naturally, different brain structures and functions influence each other (Cranenburgh, 1997: 168). This is an important characteristic of the brain that gives a imperative new point of view on emotion. Technological developments such as high resolution MRI make it possible to further

6

explore the inner workings of the human brain. Important is the increased understanding of how different structures operate together in what people experience as an emotion.

The thalamus plays a pivotal role in the symphonic dispersion of electric signals in the brain. It identifies incoming sensory information and transfers it to to the relevant subcortical area of the brain and to the appropriate region of the neocortex. The cerebellum and amygdala in turn play an important role in the ability to associate behaviors with pleasurable or painful consequences. The amygdala is involved in many emotional processes, from identifying and responding to emotional expressions in others, to attaching emotional significance to events, to creating the intensity of emotional experiences, to generating and linking feelings of fear to experiences. The cerebellum evaluates whether the brain can rely on routine or out of routine action is required.

The experience of a single emotion is an activation of three different systems of the human brain: the autonomous (brainstem, amygdala and hypothalamus), electrocortical (subcortical area) and behavioral activation (neocortex) systems (Frijda, 1988: 183).[1] What becomes clear from the intricate links between the structures is that reason and emotion cannot be seen as opposing forces, but must be seen as intimately working together.

---

[1]   Note how these systems combine the different levels of the archi- paleo and neobrain. This provides support for the theory that even the oldest parts of the brain are still developing and 'learning' how to cooperate with newer structures.

7

Emotional functionality

The universality of emotion

Many different scholars have produced work on the effect of emotions on vote choice, candidate perceptions, political learning, campaign involvement, decision making processes, and the list goes on. Many of these studies are based on earlier findings in psychology and/or neuroscience. One thing they all need to have in common is an understanding of the role of emotions in interhuman relations; not just in politics, but in society as a whole.

Some emotions are universal; humans across the world share not only the same feelings, these feelings also have the same function in their respective societies and identical biological origins. These universal feelings are called primary emotions. The primary emotions are happiness, fear, anger and sadness (see table 2). Although different biologists, psychologists and sociologist have sometimes identified additional presumed universal emotions or have used different labels[2], these four are the common denominator (Turner and Stets, 2005: 14-15).

Table 2: Overview universality of emotions

Darwin (1872)	Plutchik (1980)	Ekman (1984)	Turner (1996)	universal emotion
Pleasure Joy Affection	Joy	Happiness	Happiness	Happiness
Terror	Fear	Fear	Fear	Fear
Anger Contempt	Anger	Anger	Anger	Anger
Astonishment Pain	Sadness Surprise Disgust Anticipation Acceptance	Sadness Surprise Disgust	Sadness Surprise	Sadness

This tabel is based on a more elaborate version in Turner and Stets, 2005: 14-15

---

[2]   The different labels asssigned to the biologically identical emotions are a reflection of the socially constructed definitions and application of labels to these emotions provided by culture in itself.

What becomes clear from the table above is that indeed some human emotion is universal. Also, different labels can still be applied to the same feelings (in a biological sense). In addition to the four universal emotions that are widely recognized in the literature, surprise is also prevalent. However, the feeling of surprise is more likely caused by the activation of the surveillance system, which will be addressed later on in this thesis.

The four universal emotions are believed to be remnants of evolution that are still embedded in the human brain structures. Research by Charles Darwin among primitive tribes and even apes provided support for the universality of these emotions. This research was later confirmed by Paul Ekman (1992), who provided the basis for the requirements for an emotion to be universal. An emotion is universal if it has evolutionary survival value, appears in the earliest stages of human development, is universally recognized in facial expressions, has unique autonomic (biological) responses and emerges in all social relations (Turner and Stets, 2005: 9-16). Universal emotions originate in the archi- and paleobrain. For fear and anger the amygdala is the key structure. This study aims to to expand a theory on emotions from one continent to another. Therefore it is an important conclusion that fear and anger are considered to be the strongest primary or universal emotions.

The function of emotion

From evolutionary biology originates the understanding that emotions guide behavior in a way to maximize survivability. Human emotion can be characterized as a continuous surveillance of events or situations that are relevant for an individuals own well-being or interests. In a political context this means emotions can focus attention on issues that are threatening. Emotion also serves a diagnostic tool for the functioning of the behavioral system (Frijda, 1988: 387). In order to maximize survival, emotion should have an effect on the decision-making process.

9

Emotions can have three different types of triggers. These can occur separate from each other, or simultaneously. The first trigger is a physiological variable that changes, for instance blood sugar or hormone levels.[3] The second trigger is an external stimulus. In order for this trigger to work, a sensory input of the external stimulus is necessary. However, input can take place without being consciously aware of it. This is most notable in subliminal messaging. The third and last trigger originates from the brain itself; an emotion can be triggered by a conscious thought about a previously experienced event (Cranenburgh, 1997: 207-210). Emotion can thus, and in fact does, interact with cognition.

The human brain combines the psychological and physical triggers and is able to connect specific experiences to feelings or emotions. These links greatly enhance the learning capabilities of the brain (Cranenburgh, 1997:106-8). Multiple experiences or stimuli of the same type change the physical properties of the synapses that transfer signals in the brain. This causes the affected structure to either become more sensitive to the stimulus (sensitization) or instead less sensitive (habituation). This happens not only in the brainstructures that are related to cognition (neocortex), but in all structures, including those involved in emotion. The assessment of the result of an action is critical for developing experience. The experience is stored in the memory, which in turn also works as a shortcut or routine. This relieves the workload of the brain by acting as an automated strategy selection process (Cranenburgh, 1997:112).

Before a memory is stored in long term memory (LTM), it first passes through short term memory (STM). STM is very sensitive to interference or competing stimuli and bits of information. Alertness, attention and motivation play an important role in how an experience is stored in STM (Cranenburgh, 1997:120-21). It is mainly located in the hippocampus, in the subcortical area. the subcortical area is the region of the brain where most of the emotional processing takes place. The

---

3 While an emotional reaction can create changes in physiological variables in itself, I am here adressing physiological changes caused by an outside source that is not the emotion itself. Examples are pregnancy, physical exercise and physical conditions or diseases that affect the hormone production (e.g. diabetes or thyroidcancer).

nearby cerebellum plays a pivotal role in focusing the limited available attention based on emotional cues (Cranenburgh, 1997:122-23). Emotions act as catalysts in learning, because most people will strive to negate negative emotions and to attain a positive emotional state (Frijda, 1988: 208-9). It is thus likely that emotions effect STM and the passing on of memory to LTM. On the contrary, LTM is permanent and very resistant. Finally, the human brain is capable of storing the links between thoughts and feelings in memory. This is for example how voters associate certain political parties and candidates with either enthusiasm or contempt. These links between feelings and sensory experiences are very important to emotional appeals during election campaigns (Westen, 2007: 54).

In conclusion, the individual function of emotion is two-fold. Firstly, emotions are critically important for evaluating the surroundings for threats or opportunities. They are the means by which attention is focused where it is most needed. Second, emotions function as a dynamic roadmap for neural signals. In other words, the emotional state partly determines how and where in the brain an experience or stimulus is processed and stored. Both functions are important for learning as well as decision-making.

11

Rational emotion

Choosing the correct response

Gruesome experiments have demonstrated the usefulness of emotion in regulating human interaction on a societal level. Removing part of the hypothalamus causes a person to lose the ability to control anger. Subjects display sham rage, a clue that this area acts as an inhibitor for anger (Frijda, 1988: 405). The surgical removal of the amygdala in both humans and apes alike has led to a serious degradation of the sensitiveness to social signals or expression of feelings in clinical settings. The displayed behavior is no longer appropriate under the given conditions. This is indicates emotion is vital in regulating socially accepted behavior (Frijda, 1988: 406).

Research in neurology now demonstrates that the longstanding juxtaposition of emotion and rationality as polar opposites is simply wrong. The neuroscientist Antonio Damasio discovered that people can not think without feeling. As a neurophysiologist he found that with patients who lack the capacity for emotional response, information is processed, but they are unable to turn thoughts into action or make a decision (summarized in Redlawsk, 2006: 3). He demonstrated that in patients whose neocortex is disconnected from the subcortical emotion centers will have difficulty in making decisions of any kind. Humans need both emotion and rationality for decision-making (Turner and Stets, 2005: 21).

Why is this important? Emotion focuses attention on the circumstances that threaten ones wellbeing and directs the flow of information through certain parts of the brain and thus through the decision-making process. "From an evolutionary standpoint, emotional stimuli generally 'work' " (Westen, 2007: 49). For example, the experience of fear is associated with a threat to wellbeing of the individual or the society. People feel a natural tendency to remove the threat or to remove

themselves from the threat ('fight or flight'). Stress (which is a result of fear) leads to an increase in concentration and muscle tension. This increases the ability to take action when necessary, albeit only when the level of stress remains below a critical threshold. This effect diminishes the more experience with the situation an individual has (Frijda, 1988: 51). Do emotions still perform as well in more complex environments?

The connection between emotion and reason

Emotions are limited in their range and function. Eventually animals and later humans have evolved into thinking beings. However, feeling and thinking evolved together and in the brain the emotional and cognitive neural systems still operate together (Westen, 2007: 51). Emotion and cognition are two separate neurological systems that influence the human decision-making strategies. We are able to feel a particular way about a person, without actual cognitive stimuli that back this feeling up. Conover and Feldman demonstrated emotions are even a better predictor of vote-choice than cognitive information-processing (Conover and Feldman, 1986: 64-9).

In the modern day Western society individuals have tasks to complete, decisions to make and hundreds of social interactions each day and limited time to perform all these functions extensively. So, most people are looking for shortcuts, ways to perform functions faster preferably with a similar success rate. Individuals who lack the ability or motivation to process information carefully are more likely to rely on heuristics in their decision making process. "Heuristic processing is characterized by a general tendency to base attitudes and judgments on peripheral clues" such as good looks, race, socio-economic status etc. (Isbell et al., 2006: 69). This does not mean they choose without any relevant information, but they use less information. Emotional stimuli can provide subconsciously the information needed to make an 'informed' decision. People often reveal aspects of their personality or their competence with facial expressions, tone of voice or

13

gestures (Westen, 2007: 43). In this way emotions act as heuristics. The brain itself is wired this way. The cerebellum lets the brain rely on routines for many functions, unless it gets an emotional jolt from the amygdala. Then it reroutes resources and signals to parts of the brain the are better at dealing with the out of the ordinary.

Even when making a rational decision the human brain will still use heuristics and is led astray by cognitive biases (such as the availability bias which involves the attribution of greater importance to information that is more readily available). By including these cognitive heuristics and biases in a 'bounded rationality' model even rationalists acknowledge that people aren't capable of making purely rational decisions. "In politics, when reason and emotion collide, emotion always wins" (Westen, 2007: 35). Bounded rationality models take their critique of pure reason a step further, arguing that because people rarely have complete information and limitless time, they often do better to take shortcuts in making inferences and decisions that save time, and to focus their attention on things that really matter.

Rather than making optimal judgments, people typically make good-enough judgments. The economist and cognitive scientist Herbert Simon (1990) called this satisficing, a combination of satisfying and sufficing. An in theory purely rational voter would learn about every candidate, party and issue. Realistically, however, few people have that kind of time on their hands. Instead, most people use a simple shortcut, e.g. party affiliation, to make determinations on most votes. However, they may stray from those affiliations in races that seem more consequential. From the point of \bounded rationality\, party affiliation is a good enough proxy for a candidate's stance on issues most of the time. It actually makes more sense to "satisfice" than to reason fully about every possible candidate or referendum. The same argument can be made for the use of emotion.

Emotions are thus information processing or decision-making shortcuts. In order to demonstrate that emotions do indeed play a essential role in decisions, Lynn Ragsdale was one of

14

the first political scientists who have made a comparison between a model based on emotion and competing models based on rationality (Ragsdale, 1991). In two parts, Ragsdale's study compares the predictive and explanatory success of rational and emotional models applied to citizens' evaluations of Presidents Carter and Reagan using NES survey data. These comparisons support the hypothesis that the emotions model is more accurate in its predictions than rational models, which were leading up until then. Her model demonstrates that people's responses are both rational and emotional, but emotions affect the strength of approval and vote choice more consistently than rational evaluations of issues, events or environmental conditions (Ragsdale, 1991: 36). Or in other words, "We do not pay attention to arguments unless they engender our interest, enthusiasm, fear, anger, or contempt. We do not find policies worth debating if the implications don't touch our emotions" (Westen, 2007:16). It can be very rational to use emotion as a heuristic.

Modeling emotion and voting behavior

Two processes, one vote

The emotions that are prevalent in everyday life are not always relevant in the world of politics. Typically, emotions in politics have beliefs and values as objects and are therefore closely linked to corresponding cognitive processes (Marcus and MacKuen, 1993: 673). The unique nature of politics, which generally deals with conflicts or the resolution thereof, entail that general theories derived from psychology do not offer a sufficient explanation for the dynamics in the political arena (Marcus et al., 2006: 34-35).

Neuroscience has provided unprecedented insight in the workings of the brain and the origins of emotion. This knowledge forms the outer boundary of what is possible in a model on political decision-making. If a model results in predictions contrary to the biological makeup it is de facto invalid. Psychology has offered more insight in the relation of the biology with feelings, thoughts and behavior. Political science draws heavily from these insights. Still a vast amount is unknown. Investigating new theories requires modeling and measuring emotional effects.

In early research emotions were roughly grouped into positive and negative emotion in a traditional valence model (Turner and Stets, 2005: 9). That was when not many details on the wide (biological) variety of emotions was available. In 1973 Brody and Page first recognized that emotions have predictive power in elections, but it wasn't until the mid 1980's that feelings or emotions became a serious object of study for political scientists. These early studies were focused on demonstrating the importance of emotions and not necessarily on developing a comprehensive theory (Marcus, 1988: 737-8). With the work of Lynn Ragsdale the value of emotion in elections was definitively recognized, how it influenced the vote choice was quite another matter.

The neural systems involved in motivation and emotion can be categorized in two

subsystems. The behavioral approach system generates pleasurable emotional states and leads

humans and animals to approach stimuli associated with them. The behavioral inhibition system

generates anxiety and causes avoidance of negative emotional stimuli (Isbell et al., 2006 see also

Marcus et al., 2000 and MacKuen et al., 1993). These processes are not physiologically fully

separate. The hypothalamus and cerebellum in both instances monitor sensory input. The

cerebellum creates emotion that in turn determines where signals go next. Mostly these signals are

relayed to the limbic system to make use of efficient routines. Fear is initialized separately by the

amygdala, but evaluated by the cerebellum as well. The behavioral approach and inhibition systems

are more constructs of different outcomes than of biological separation.

A model explaining the outcomes following emotions thus needs to incorporate these

systems together. In the early stages of psychological research scholars collected multiple measures

of self-reported emotions and tried to map them in such a two-dimensional model. There are two

prevailing, but markedly different versions: the valence model and the positive-negative affect

model. In the former the two dimensions identified in the model are a pleasant-unpleasant and an

arousal dimension. The biggest problem with the valence model is that it can not explain why

people report positive and negative feelings simultaneously. The alternative, the negative-positive

affect model, does instead assume that both dimensions can display concurrent emotional responses

(Marcus, 1988; Marcus et al., 2006). This reflects the biological make-up of the brain.

In a comparison of these models, using 1984 American National Election Studies (ANES)

data which contains seven emotion measures for both presidential candidates that ran for office in

that year, Marcus demonstrated that a positive-negative affect circumplex model provided the best

results in predicting candidate evaluations (Marcus, 1988).

The circumplex model has been crucial in the further understanding of the role of emotions.

Political science now offers two prevailing theoretical frameworks. In both the role of emotions on

17

the individual vote decision is explained: the motivated reasoning-model by Lodge, Taber et al. (2006) and the theory of Affective Intelligence (AI) by Marcus, MacKuen et al. (2006). These are not necessarily competing views as much as perspectives focusing on different aspects or levels of emotional response. These theories are similar in their explanations and predictions of the early stages of emotional stimulation (perception of new information or threat).

The motivated reasoning model proposed by Lodge, Taber and Weber (2006) is based on the primacy of affect hypothesis (Zajonc, 1980) and the hot cognition hypothesis (Lodge and Taber, 2000). For a long time thoughts and feeling were thought to be separable and relatively independent. Zajonc demonstrated that much of our political thinking is linked to feelings. Later neuroscience has also demonstrated the separation is untenable (Damasio, 1994). Automatic emotional responses are primary in the deliberation process. Measured in ms, automatic responses are already processed in the human brain before conscious deliberation is even possible. (Zajonc, 1980). This is a result of the processing of an emotional stimulus in the cerebellum, amygdala or hypothalamus and the subsequent dispersion of the neural signal to the neocortex by the cerebellum. In addition the formation of memories is greatly influenced by emotion. Also, the emotion itself is linked to the stimulus and stored with it. Incoming emotional stimuli trigger pre-existing emotional reactions stored in memory. This affective tally (Lodge et al., 2006) primes our brain for the following conscious deliberation. The affective responses underlie all conscious deliberation. Thus both emotion and cognition influence choice in a dual process model (Lodge et al., 2006). This is called motivated reasoning.

Most facts, beliefs and predispositions are stored in long term memory (LTM) including the affective tally. Activation can be influenced with priming (Lodge et al. 2006: 20). The 'hot-cognition' hypothesis (political attitudes and believes are imbued with an affective association) is supported with data from experiments used in earlier work (Lodge and Taber, 2000) for persons,

groups and issues (Lodge et al., 2006: 25). This means that emotional priming influences how people think of political parties, candidates and issues. Low (political) sophisticates are less likely to display hot-cognition and automaticity, since low-sophisticates have less knowledge, less memory stored items, and thus less affectively charged items. This knowledge effect is the strongest for issues since these requires the most knowledge (Lodge et al., 2006: 26).

The situational factors favoring automaticity (absence of explicit reasoning) characterize the realm of politics for most people (i.e. no direct consequences of actions/choices, distant, uncertain, little reflection). The same factors typify what Marcus et al. label complacent voters in AI. These are voters that have no strong (negative) emotional reactions to politics (Lodge et al., 2006; Marcus et al., 1993, 2000, 2006). Therefore it is likely that voters will use heuristics extensively. The routines stored in the brain create habitual responses to conditions that do not trigger the amygdala and thus a negative emotion. This mechanism is central to AI.

The theory of Affective Intelligence

As early as 1988 George Marcus, and later with his colleague Michael MacKuen (1993), concluded that emotions do matter in the democratic voting process. In an attempt to differentiate between emotions and their effects on the vote Marcus, MacKuen and colleagues developed the theory of Affective Intelligence (AI). AI is the most complete theory on the role of effect in political decision-making. This model reflects a dual emotion-system, is based on a positive-negative affect model and predicts use of heuristics under certain emotional conditions (Marcus et al.,1988, 1993, 2000, 2005, 2006).

George Marcus laid down the foundations for AI in the 1988 article on the structure of emotional responses. In this preliminary study Marcus identified two emotional dimensions. He labeled the positive and negative affect dimensions respectively the mastery and threat dimension.

19

The analysis of 1984 ANES emotional responses indicate that mastery plays a more influential role than threat. Even so, the threat dimension is also significant and provides explanatory power (Marcus, 1988: 745-8). The findings suggest that feelings of threat are evoked by voters' perceptions of the candidates' (expected) job performance, (lack of) moral leadership and policy appraisals. It is important to note that despite the fact that respondents reported stronger positive emotions, the negative emotional dimension had a greater impact on the vote (Marcus, 1988: 755).

The mechanism by which negative emotion influences the vote was further investigated in 1993. At this point the negative emotion dimension is no longer labeled 'threat', but 'anxiety' instead. The theoretical and empirical underpinnings remain virtually the same. The mastery dimension is now characterized as enthusiasm. Again using ANES data, this time from the 1980 presidential elections, Marcus and MacKuen arrive at similar results as in 1988. Enthusiasm affects vote choice directly, whereas anxiety creates a mental pause moment: voters reconsider their vote, setting habits aside. This is demonstrated by the drop in using partisanship as a sure guide to candidate choice. Instead, voters turn to available information such as specific candidate traits, experience or issue stances (Marcus and MacKuen, 1993: 677). The use of different data-sets (the 1984 ANES in 1988-article, 1980 ANES and 1988 commercial data from Missouri in 1993-article) increases confidence in the findings.

According to Marcus et al.. (2000), and reflecting the biological description of the brain in this thesis, two affective subsystems in the brain are responsible for the way we make choices and act. The disposition system manages reliance on habits, most of which do not require explicit reasoning. The surveillance system monitors the environment for circumstances that are novel and require further consideration. The disposition system also translates feedback on the success of current pursuits into enthusiasm or depression; the surveillance system translates feedback on threats/novelty into anxiety or calm (Brader, 2006). In a precursor to his more elaborate and

pioneering book on the emotional influences of political campaigns Brader tests assumptions and predictions of AI. He uses an experimental design after arguing that survey research alone can not demonstrate the causal effects of emotion on voting behavior (Brader, 2005: 389). This is also a critique on AI, which at that time was based on analysis of survey research.

The biology supports the survey findings. It is the cerebellum, when activated by the amygdala or (hypo)thalamus, that halts routines and focuses resources towards brain functions involved in rational thought. So, while the disposition system provides efficiency in political decision making by the reliance on habitual cues, the surveillance system provides a response to novel environments, when reliance on learned capacities do not point to the best course of action. To demonstrate the effects of both positive (enthusiasm) and negative (fear) emotion Brader showed manipulated campaign adds to participants in an experimental study. To identify the causal effects of the emotions the content of the message was kept the same when emotional cues were altered. These cues consisted of music and images (Brader, 2005: 392).

The experiments confirm the predictions of AI. Enthusiasm increases the desire to participate. More importantly, it reinforces prior convictions and promotes the use of heuristics. Contemporary considerations (i.e. traits and issues) are less sailant. Alternatively, there was no evidence that fear increases interest or the intention to vote. There was only a marginal indication for the desire to look for more information. The most important finding is that fear not only unsettles existing choices, but also pushes them in the direction of the sponsor that promoted the emotion fear. "Campaign adds can cue fear and thereby *cause* changes in political choice" (Brader, 2005: 400).

Now AI reflects biology and is supported by theory, survey research and experiments. but there are still some problems. First, the presence of a third emotion, anger, has drawn increasing attention from scholars in this area. Second, all three emotional dimensions have at times stimulated

21

the desire to pay attention and think about political events or issues, though anxiety has done so most consistently and strongly (Brader, 2006).

The specifics of anger

Valentino, Brader et al. (2010) highlight the enormous amount of research that has combined anger and fear in a single dimension of negative emotion. They stress this result has been misleading. The grouping is more an artifact of the chosen research method, self-report survey questions (Valentino, Brader et al., 2010: 159). A quick look at the biology of the brain might have been warning enough that any theory that assumes this single dimension is incomplete. Despite the fact that Marcus and his colleagues provide powerful arguments for including aversion as a separate third dimension in the model for Affective Intelligence, they repeatedly mix aversion and anxiety (Marcus and MacKuen, 1993; Marcus et al., 2006). Marcus and MacKuen include anger in their measure of anxiety, the central variable in their theory of Affective Intelligence. However, they dismiss the role of anger since "for the most part presidential candidates do not stimulate anger" (MacKuen et al., 2006: 9). This seems contradictory. Also, both anger and fear are considered to be separate primary emotions which originate in different areas of the amygdala in the brain (Cranenburgh, 1997: 153).

Aversion or anger displays a remarkable dynamic. In an analysis of ANES pilot data, which includes a larger than usual set of emotional measures, Marcus et al. demonstrated that aversion can be included in a measure of anxiety in specific conditions. In a simulated primary election study, which included a larger than normal set of emotional items, results indicated that those respondents who read about policy in line with their own preferences (thus agreeing with the candidate) show only two emotional dimensions: enthusiasm and anxiety. The aversion measures all loaded on the anxiety factor. However, when the respondents were given information that challenged their own stances the factor analysis resulted in three separate factors: one for positive affect (enthusiasm), but

22

two negative dimensions. The anxiety and aversion measures formed two separate dimensions (Marcus et al., 2006). It thus seems that anger in combination with disagreement shows distinct predictive effects. This raises the question why fear has been assigned theoretical significance in the theory of Affective Intelligence, whereas anger was not, although both are assigned equal weight in the empirical operationalization of anxiety.

Anger and corresponding aggression are in evolutionary biology related to providing the basic necessities for survival of both the individual and the society (Frijda, 1988: 406). Anger is therefore a strong emotion. People feel anger when control over the cause of the negative emotional stimulant can be directly attributed to someone other than themselves. In cases in which no obvious blame can be attributed they are more likely to experience fear or anxiety (Marcus, 1988;). The combination of a perceived threat and guilt attribution creates aversion or anger (Huddy et al., 2005). Aversion and anxiety are confirmed to act as separate measures (Steenbergen and Ellis, 2006: 117). A threat to one's personal beliefs and values that can be attributed to the candidate creates aversion as well (Steenbergen and Ellis, 2006: 124).

Marcus, MacKuen and colleagues do acknowledge that anger or aversion is an important emotion in politics. It is included in the disposition system and excited when voters encounter familiar but hated stimuli. Whereas enthusiasm (positive disposition) should lead to the pursuit of goals, aversion (negative disposition) leads to avoidance or neutralizing of stimuli (Marcus et al., 2006; MacKuen et al., 2010). Valentino, Brader et al. (2010) combine this insights in a combined study on the effect of anger, anxiety and enthusiasm on political participation. First of all they demonstrated that in a model for political participation emotions have their own unique role apart from other variables such as political knowledge. Second, anger was shown to be the more powerful motivator for participation. Anxiety and enthusiasm do not boost participation as much and only in what they call non-costly forms of political involvement (Valentino, Brader et al., 2010:168).

23

Other studies found that anger stimulates the use of heuristic processing of information (e.g. using stereotypes) while fear promotes systemic processing of information (Isbell et al., 2006: 74). This means that voters experiencing anger or aversion should base their vote more on habitual cues such as partisanship, which is in direct contradiction with the expected result for anxiety in the theory of Affective Intelligence.

Hypotheses

This study predicts, in line with AI, that voters who experience anxiety are more likely to show an increase in use of contemporary information as opposed to habitual clues, and are more likely to base their vote on evaluation of candidate traits and issue stances of parties instead of simply following party attachments. Therefore the following hypotheses are tested:

> *H1:* *Voters who experience anxiety are less likely to vote based on party-attachment*
> *H2:* *Voters who experience anxiety are more likely to vote based on contemporary information, i.e. candidate traits and perceived issue positions.*

Whereas anxiety leads individuals to look for more information on a political topic, aversion has the opposite effect and creates a tendency to look for biased information (MacKuen et al. 2010). In addition anger has a strong mobilizing effect, associated with the dispositional system, instead of the surveillance system associated with anxiety (Valentino, et al. 2010). This study therefore predicts that voters that experience anger will show an increase in heuristic processing and concurrent decrease in information use similar to voters who are labeled complacent (absence of anxiety), whereas voters that experience higher levels of fear will show the opposite effect. In addition, the guilt attribution associated with higher levels of anger is expected to have a direct effect on voting behavior. From this follow these hypotheses:

24

H3:   *Voters who experience anger are more likely to vote based on party-attachment*

H4:   *Voters who experience anger are less likely to vote based on contemporary information, i.e. candidate traits and perceived issue positions.*

H5:   *Voters who experience anger attributed to specific parties or candidates are less likely to vote for these parties or candidates.*

Methods

Data collection and sampling

The intent of this study is to evaluate the differences in voting behavior when experiencing negative emotions. "Positive affective reactions (...) may be experienced as general positivity, negative feelings are typically differentiated" (Isbell et al., 2006: 57). Examples of these differentiated negative emotions are anger, fear, sadness and disgust. Therefore in studying these effects, it is important to differentiate in both the operationalization and the measurement of emotions. Because in the Netherlands there are no sufficient emotion measures included in nationally representative surveys or election studies, a new survey was conducted. This survey was explicitly designed to illicit emotional responses. The most important characteristic is the experimental design that differentiates between fear, anger and a third control group. The questionnaire further includes items on political parties and candidates, voting history, issue preferences, partisanship, ideology and a standard set of demographic background questions (see appendix for questionnaire). In addition, control questions for political knowledge are added.

This study used an online survey tool (www.thesistools.com) and also provided the option to fill out the questionnaire on paper. This offers the most efficient way to collect a larger amount of data. Since time and resources for a thesis study are limited, the survey was administered to a convenience sample of University of Leiden students, friends, family and coworkers. The number of respondents is further increased by making use of snowball sampling. Snowball sampling is a non-probability method often employed in field research whereby participants are asked to suggest other participants (Babbie, 2004: 184). Similarly, in this study the initial participants are asked to forward the survey to new participants. Snowball sampling is commonly used in studies which aim to develop measures to be tested in larger samples. Although care must be taken when making

estimates, snowball and respondent-driven samples can provide asymptotically unbiased estimates with the use of appropriate estimation procedures (Salganik and Heckathorn, 2004).

The background questions used for this study are the same as the ones used in virtually all public opinion surveys with a nationally representative sample, such as the Dutch National Election Studies (DPES). This way the participants can still be compared with representative data. This study will not be representative for the Dutch electorate, but the comparison can give some insight in the makeup of the sample. In addition, the emotions studied are universal. The object of this study is to demonstrate the mechanism of negative emotionality using an experimental manipulation. Conclusions will be formulated accordingly. For the thesis it is more important the research design is accurate than the sample being nationally representative. Or in other words, the internal validity supersedes the external validity. Further solidifying the findings with a nationally representative sample is a next step, but one beyond the scope of a thesis.

In any research project one must be aware of the limitations of the chosen method. The most important limitation of a survey is the absence of a direct observation of the effect of an emotion. The expression of human emotions is very complex and comprises elements of verbal expression, movement and changing muscle tension (Frijda, 1988: 43). These effects are lost in a survey setting. On the other hand, "public opinion surveys capture conscious emotional responses (…) and such responses are highly relevant as individuals decide whether and how to participate in politics" (Valentino, Brader et al., 2010: 159). Thus the indirect effects of emotions are measured in a survey.

The research designs used by Capelos et al (2007), Rosema (2007) and the early work of Marcus and MacKuen (Marcus et al., 1988, 2000, 2005, 2006 and MacKuen et al., 2006) all use surveys with self-reported emotions. In these studies participants are asked whether certain candidates ever made them feel angry, happy, sad etc. A variation of this type of question used by Capelos et al (2007) is asking to what extent a specific candidate or party makes the respondent feel

anger, fear, pride or hope. Relying on self-reported emotions in surveys do have an important

downside. Solely basing a research design on self-reports has led to ignorance of emotions and their

effects that are taking place outside of human awareness. Valentino, Brader et al (2010) touch upon

the inclusion of anger and anxiety in a single dimension as a result of this. These subconscious

elements can only be studied in the field of neuroscience (Marcus, 2002: 52, see also Damasio,

1994), which is far beyond the scope of this thesis. This study therefore relies on the second best

solution, self-report surveys, which in turn rely on an increased understanding of emotions as a

result of the recent advances in neuroscience.

In the aforementioned election surveys respondents are asked to report a memory of an

emotion rather than experiencing the emotion on the spot. This is also the the starting point for

Affective Intelligence. With this method there is a strong possibility of reversed causality, a voter

might infer stronger or weaker reactions based on the election campaigns and subsequent outcomes

(Valentino, Brader et al., 2010: 161). In an experimental setting the actual emotional experience is

manipulated to look at the effect of the affective state. The idea is that the recall of a certain emotion

leads to experiencing this emotion. Then the effect of this induced emotional stimulus is tested. This

is markedly different from asking to recall whether a candidate ever made them feel the emotion. It

is a more direct measurement of emotion. Therefore, this study introduces an experimental

manipulation in the questionnaire. This should allow for direct causal attribution of differences in

voting behavior to a specific emotional state.

Operationalization

This research constitutes mainly of statistical analyses of collected survey data. After asking

participants for their demographic background and a question about political interest, they received

the manipulation task. Three different versions of the questionnaire were randomly assigned; one

manipulating participants in an angry state, one in a anxious state, and a control group in a relaxed state. This is a somewhat more elaborate version of a manipulation shown to be effective by Valentino, Brader et al. (2010). The participants were asked to take some time to describe something that has made them feel angry (or anxious) during the most recent election campaign and subsequent government formation. The control group was asked to report something that made them feel relaxed or at ease, for example a vacation or day in the park.

> *"Now we would like you to describe something in current Dutch politics that makes you feel (angry/afraid). Please describe how you felt as vividly and in as much detail as possible. Think about the candidates in the last elections, the issues in last year's election, and world events. Examples of things that have made some people feel (angry/afraid) are statements made by candidates, policy proposals by specific parties, the outcome of government formation and things said during the debates. It is okay if you don't remember all the details, just be specific about what exactly it was that made you (angry/afraid) and what it felt like to be (angry/afraid). Take a few minutes to write out your answer."*

The expectation is participants will access their affective memory and thus experience the reported emotions again. Remember that the items stored in LTM are imbued with an affective tally. The manipulation seeks to re-experience the emotional state and in doing so influencing the way the decision-making process takes place. This is measured as differences of the effect of independent variables on the vote choice.

For the model used a distinction of the three different emotional states needs to made. The survey tool assigns participants at random to the three separate versions of the questionnaire. All the responses are combined in a single dataset. A nominal variable identifies each participants'

29

emotional manipulation. This allows for the creation of subsamples which can be tested separately for comparison. Analyses of responses need to be based on actual emotional manipulation, therefore a manipulation check question is added in the questionnaire. After answering questions about candidates, parties and the ideology items the participants were asked to describe their feelings at that time.

After the manipulation all participants were shown the second part of the questionnaire, which includes all the questions on candidate traits, some issue positions and (perceived) ideological placements. Finally, respondents are asked about their party attachments and general inclination towards a single party as well. For comparison and validity all questions are worded similar to ANES and DPES studies. All questionnaires were administered in Dutch (see appendix for full questionnaire). This main body of the questionnaire in essence thus contains three blocks reflecting party attachments, candidate traits and issue positions. These are the building blocks for the independent variables similar to those in Affective Intelligence. There are some differences.

First, a selection of parties is made. This is done to make sure the length of the questionnaire would remain manageable. A questionnaire that is too long also has a negative effect on response rates. After the elections of 2012 there are six parties with ten seats or more in the Second Chamber of parliament. Together these six hold 134 (89%) of the 150 seats[4]. It is very likely that the leaders of these parties are well known. These are the main political leaders featured in most of the nationally televised election debates. This implies that voters can differentiate between them and have specific opinions on each of them. For each of the six leaders of these parties participants are asked to rate on a 4-point ordinal scale their competence, strength, honesty and friendliness. These correspond to the measure used by Capelos et al. (2007).

---

[4]   The six parties are VVD, PvdA, PVV, CDA, SP, D66 and respectively leaders Mark Rutte, Diederik Samson, Geert Wilders, Sybrand van Haersma Buma, Emile Roemer and Alexander Pechtold. These parties reflect a broad spectrum from traditional left to right, conservative to cosmopolitan and old and new parties. Source election results: http://www.verkiezingsuitslagen.nl

Issue questions in American election studies can mostly be divided in a liberal or conservative response. Since the multiparty nature of the Dutch system make attribution of issue preferences in a simpler liberal-conservative dichotomy impossible, a proxy variable will be created. Capelos et al. (2007) demonstrated that instead of creating a dichotomous liberal-conservative issue placement, a left-right scale can be used as an alternative. Thus for each of these parties a 9-point left to right scale is added. In addition to placing the six largest parties on a left to right scale, participants also place themselves on the same scale. This way a variable reflecting ideological difference can be created. It is this ideological closeness that is used as proxy for closeness on issues. Theoretically this makes sense, because issue positions and ideology are strongly related. In order to have more leverage when assessing issue positions an alternative measure is created as well. This measure is based on three statements derived from the DPES. Participants are asked how strongly they disagree or agree with the statements. Still, the answers can not be attributed to a single party. However, these specific statements are chosen because they allow for the creation of a left-right scale as well (Leeuwenburg et al.: 2010). This way the issue positions can be compared to ideology. At the end of the questionnaire several questions on political knowledge are included. These allow for the creation of a knowledge scale to be used as a control variable. On the one hand motivated reasoning suggests that increase in political knowledge enhances the effect of emotion.

Analysis

The final data was downloaded from the online survey website on June 1 2013. The three versions were combined in a single dataset. Variables that indicate whether respondents answered the manipulation question were added manually. The analyses in this study start with a series of

31

descriptives on the participants of the survey. Because the sampling method used does not produce a representative sample of Dutch voters, it is important to see how the eventual sample can be characterized and where it differs strongly from the population. Second, a comparison of means is used to see whether the respondents in the three groups that reflect respectively an angry, fearful or relaxed state differ from each other on background variables. Comparisons with national data are made as well on age, gender and education level. These are important control variables, as well as political knowledge. In order to demonstrate that findings do not occur from differences in age, gender and education, these comparisons are included. This provides more confidence the results actually reflect the inferred causal mechanism proposed in this study.

Next the variables that constitute the building blocks for the independent variables for the model are created. First the trait items scores are recoded in a way that the lowest score ("Not at all") equals zero. The other values are adjusted accordingly. All trait items are measured on a 4-point ordinal variable. The most positive attribution of a trait ("A great deal") is thus scored as three. Also, the scores trait items for the different candidates are compared between the three manipulation groups to evaluate if the emotional state causes participants to differentiate in their assessment of political leaders. To this end the means and distribution are reported for the items. This way it is also possible to explore a direct effect of the emotional manipulation on the responses. Second, the trait scores are combined in a single scale for each individual candidate. The candidates trait independent variable is a scale based on the sum the scores on trait items for the own candidate in the questionnaire divided by the total number of items. The scale is recoded to fit a 0-1 range. Cronbach's Alpha for these trait scales range from 0.71 to 0.84 (see results section for more details).

A similar method is used for the ideology and issue items. These items constitute the second independent variable in the model. They can be used as alternatives for each other. For a good

comparison these two variables will both be operationalized as a scale in 0-1 range. First the responses to the three issue statements are recoded to reflect left-right positions. The next step is to combine them in a scale. This is done by adding the scores and then recoding to fit the 0-1 range. A score of zero indicates full agreement with the left, a score of one indicates full agreement with the right. Cronbach's alpha for this scale is 0.65. Next, the absolute difference between the placement of a party on a 9-point left to right scale and self placement on the same scale is calculated. This results in six items reflecting ideological difference with each of the six parties. All participants have indicated what party they prefer and using the 'optional case selection' function for each individual participant the ideological difference with this particular party is calculated. The result is a variable reflecting ideological difference with the party which participants intent to vote for, a proxy for closeness on issues. This scale is also ranged 0-1, where zero indicates no ideological difference, and one is maximum ideological difference.

The third and final independent variable is party attachment. Party attachment is established by asking participants whether they in general feel inclined to a specific party more than others. When answered positively two follow-up questions were asked. The first identifies which party is preferred. Second, a question with ordinal answer categories is used to determine the strength of the attachment. For each party a single variable is created that combines these three questions into a single measure for strength of party attachment to that specific party. In addition, a variable is created that combines the support for any of the six major parties. These variables are also coded 0 (no attachment) to 1 (strong attachment).

A separate control variable for political knowledge is created using seven open-ended knowledge questions. Each correct answer is scored as 1, an incorrect answer is scored 0. The scores for the seven items are added creating a scale. The scale is recoded to range from 0 (all false) to 1 (all correct). Cronbach's alpha for the knowledge scale is 0.60.

33

Now the three independent variables have been created, these can be entered in a model. The model used in this thesis is derived from the models in Affective Intelligence. There are some important differences. Predictive factors, or independent variables, are party attachment, issue position and candidate traits. For comparison of the factors to be possible, all three are coded in a 0-1 range. Apart from the differences in these independent variables (see above) the most important difference is the type of dependent variable used. The dependent variable in this model is the vote choice. Since there are no elections during this study participants are asked which party they would vote for *if* there were elections now. Whereas in the United States this can be seen as a (almost) dichotomous choice, in the Netherlands there is a wide range of choice. The dependent variable is a nominal variable with multiple categories. Marcus et al. (2006) and Capelos et al. (2007) use a linear regression model since their dependent variables are continuous scales reflecting party support or approval. Here the focus is on the actual vote-choice, the nominal dependent variable. Using this type of variable in a linear regression model would violate the assumptions of normality and homoscedasticity (Sieben and Linssen, 2009:1). Logistic regression is closely related to linear regression and resolves these issues by creating odds that independent variables correctly predict the outcome on a dependent variable. Thus a logistic regression model is the appropriate test. The units of analysis are the individual voters. How is the influence of the emotional manipulation determined?

Hypotheses 3 and 4 together predict the role of anger in the vote choice. The first of these hypotheses state that voters who experience anger are expected to vote more based on heuristic processing. In other words, voters experiencing anger vote in accordance with partisan attachments. Concurrently contemporary information such as candidate traits and issue preferences matter less. For voters who experience fear the opposite pattern is expected. This is reflected in hypothesis 1 and 2. Testing whether the emotional state alters the voting behavior as stipulated by these

hypotheses is done using the logistic regression analysis. What this analysis in fact does, is estimating the relative weights of factors predicting vote choice in the different emotional states. In other words, the odds that someone votes for a particular party based on party preference, issue position or ideology and candidate traits are calculated. This can be done for each of the three groups separately. The results of the three models are then compared. The hypotheses are supported when the factors predicting vote choice show differences as expected between the three subsets.

Results

Characteristics of the sample

As a result of snowball sampling eventually 372 people participated in the survey. However, only 224 (60%) are included in the analyses. The manipulation task proved to be a stumbling block for about one third (31%) of the people who started the survey. Apparently they closed the survey at this point. After this task only 69% of the participants answered the remaining questions. Another 9% did not answer the manipulation in a serious manner. Instead they wrote for example "blablabla" or simply entered random keystrokes. Participants who did not complete the manipulation task are left out of all subsequent analyses. Even if they would have completed the rest of the questions, it would be impossible to test for an effect of the emotional state.

In addition, a manipulation check was included in the survey. The check consisted of a question asking how respondents felt at that moment. The answers were coded congruent, incongruent or no answer. An answer is considered congruent when it reports a feeling that is the same as the manipulation. Thus for the anger manipulated group, angry is coded as congruent. This is a very strict check. Of the respondents only 14% gave an emotional response congruent with the manipulation. This indicates the manipulation was still active at the end of the questionnaire for a small group. It does not mean the other participants were not manipulated or that the manipulation had no effect. However, it is not possible to be certain of an effect. For practical purposes every respondent who has completed the manipulation task is assumed to have been primed in a specific emotional state to at least a certain degree. Therefore these respondents are all included in the analyses.

As expected, the remaining sample is not representative for the Dutch electorate (see table 3). Of respondents in this sample 46% is female and 51% is less than 35 years old. Young

36

respondents are overrepresented, also middle ages are underrepresented whereas ages between 55 and 65 appear more frequently than expected. The mean age for the sample is 41 with a standard deviation of 14,6. The background items show only marginal differences between the total and the manipulation samples. This indicates that non-completion is spread evenly.

When comparing with the latest available nationally representative Dutch Parliamentary Election Study (DPES) it becomes clear most participants have a relatively high education, 54% has a Ma-degree education, another 18% is at the Bachelor level. Not surprisingly political interest is also relatively high, only 17% indicate they have no or little interest in politics. In the NKO data this is 19%. In short the manipulation sample is younger and higher educated than average, also political interest is higher. These differences are all explained by the administering of the survey to a number of University of Leiden Political Science students.

Table 5: Comparison of sample with national representative data

	Total sample N=372	Manipulation Sample N=224	NKO data 2010 N=2621
% female	46% (.50)	46% (.50)	51% (.50)
Mean age	38 (14.67)	41 (14.61)	49 (17.21)
Education Ba <	68% (1.39)	72% (1.41)	36% (1.02)
High political interest	48% (.80)	47% (.82)	14% (0.57)

Standard deviations in parentheses

Evaluations of candidate traits

Candidate traits are the first of three independent variables in the voting model based on the theory of Affective Intelligence (AI). For each of the six leaders of the largest parties four items were included in the survey. The mean scores for each candidate on individual traits are presented in the first four rows of table 2. The scores range from 0 (not at all) to 3 (a great deal). A correlation analysis was run as a preliminary test. For all items Pearson's R is statistically significant (p < 0,001

two-tailed, not included in table). The Cronbach's Alpha score for the scales is also included in the table and is above 0,80 for four out of six candidates. This indicates the trait scales are very reliable and accurately portray a general candidate trait evaluation score. The score for Geert Wilders and Emile Roemer are just below 0,80. The bottom row displays the scores on a scale combining the four items, which is recoded in 0-1 range for inclusion in a regression model.

Table 4: Mean scores of candidate trait items

Means	Rutte (N=214)	Samson (N=215)	Wilders (N=213)	Buma (N=212)	Roemer (N=212)	Pechtold (N=214)
Competence	1.94 (.83)	2.04 (.87)	1.20 (1.06)	1.56 (.79)	1.49 (.87)	2.15 (.83)
Strength	1.37 (.92)	1.57 (.90)	0.69 (.90)	1.46 (.84)	1.74 (.84)	1.64 (.89)
Honesty	1.51 (.93)	1.79 (.89)	1.62 (1.12)	1.02 (.75)	1.36 (.81)	1.80 (.87)
Friendly	2.33 (.83)	1.94 (.85)	0.82 (.85)	1.75 (.84)	2.28 (.78)	1.78 (.86)
Cronb. Alpha	0.81	0.82	0.71	0.81	0.76	0.84
Traitscale	0.60 (.23)	0,61 (.24)	0.36 (.24)	0.48 (.22)	0.57 (.21)	0.61 (.23)

standard deviations in parentheses

Samson and Pechtold are seen as the most competent candidates, Rutte and Roemer the most friendly and overall Geert Wilders is rated most negative. This could be a reflection of his confrontational style, or a result of being held responsible for the resignation of the previous government. This remains a matter of speculation. More importantly, the participants attributed each candidate with an individual trait profile.

Table 5: Mean scores of candidate trait scales by manipulation group

Means	Rutte	Samson	Wilders	Buma	Roemer	Pechtold	Own candidate
Anger (N=76)	0.58 (.25)	0.59 (.26)	0.33 (.24)	0.47 (.23)	0.55 (.23)	0.58 (.25)	0.74 (.17)
Fear (N= 69)	0.60 (.22)	0.65 (.22)	0.34 (.24)	0.47 (.18)	0.58 (.22)	0.63 (.23)	0,77 (.17)
Relaxed (N=69)	0.61 (.22)	0.60 (.22)	0.41 (.24)	0.50 (.22)	0.59 (.18)	0.64 (.22)	0,77 (.17)
Total (N= 214)	0.60 (.23)	0.61 (.24)	0.36 (.24)	0.48 (.21)	0.57 (.21)	0,61 (.23)	0,76 (.16)
F-ratio (2,212)	.49	1.37	2.31	.61	.61	1.15	.80

Numbers in parentheses are standard deviations for scale mean

Next, the results for the trait scales are analyzed for each manipulation group separately. The means for the six candidates' trait scales are compared among the three groups in table 5. An analysis of variance for the scale means show very low *F*-ratios (between groups, *df*=2). The ratios are reported in the bottom row of table 5. None of these are statistically significant. There is no difference on candidate trait evaluation between the three different manipulation groups. This indicates the manipulation of emotional state had no direct effect on how respondents scored candidates on trait items. The last column in table 6 represents a variable that reflects the mean scores for the candidate the respondents intends to vote for. The N in this column is lower since only respondents that intent to vote for these six candidates are selected (Angry N=56, Fear N=43, Relaxed N=44). The mean trait score is much higher than the individual candidates' overall scores, which is to be expected. There is less variance (*M* = 0,76, *SD* = .17) compared to the overall candidate scores. The differences between manipulation groups are also marginal here. The *F*-ratio is low and not statistically significant ($F(2,140) = 0.80, p = .453$).

Perceived issue positions

Together with candidates traits perceived issue positions are the two independent variables that represent the usage of contemporary information in reaching a vote decision. As described in the operationalization ideological difference is used as proxy for closeness on issues. Self placement on a 9-point left-to-right scale is compared to placement of parties on the same scale. The absolute difference is the measure for ideological difference.

First, the mean scores of each party are represented below. The respondents placed themselves and the parties independently on the scale. Table 6 demonstrates each party is assigned its own unique position on the left-right dimension. The distribution graph shows the sample is

39

skewed to left of center (*M* = 4.60, *SD* = 1.92). All parties live up to their reputation, they are placed on a left-right dimension in an expected order. From left to right that order is SP, PvdA, D66, CDA, VVD and PVV. The variance in placement of the parties is relatively low. The PVV has a high variance compared to the other parties.

Table 6: Mean score left -right scale (N=204)

Party	Mean	Standard deviation
VVD	6.98	1.25
PvdA	3.70	1.31
PVV	7.16	2.10
CDA	5.55	1.26
SP	2.13	1.42
D66	4.81	1.33
Self placement	4.60	1.92

Graph 1: Distribution of selfplacement
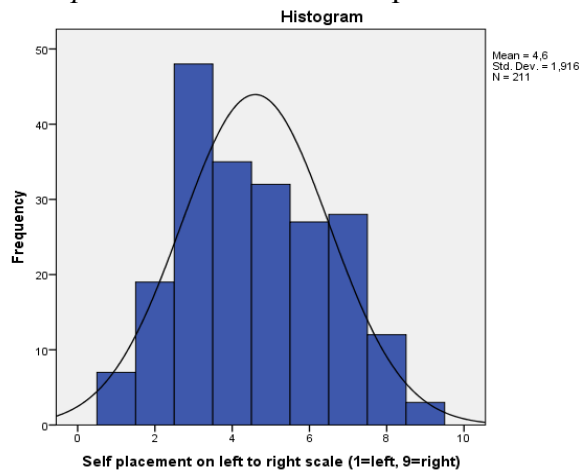
The independent variable used for the regression model is the absolute difference between the respondent and the party a respondent would vote for. The mean scores for this measure are presented in the last column of table 7. The N for this column is lower because of case selection (Nanger=53, Nfear=43, Nrelaxed=44). The mean scores for ideological difference with the six main parties are presented as well. The means are compared over the three manipulation groups.

Table 7: Mean scores of ideological difference by manipulation group

Means	VVD	PvdA	PVV	CDA	SP	D66	Own party
Anger (N=73)	0.33 (.22)	0.29 (.26)	0.41 (.27)	0.26 (.21)	0.37 (.26)	0.25 (.22)	0.13 (.09)
Fear (N= 68)	0.39 (.26)	0.24 (.22)	0.46 (.27)	0.30 (.19)	0.30 (.24)	0.27 (.19)	0,15 (.13)
Relaxed (N=69)	0.34 (.24)	0.28 (.22)	0.42 (.25)	0.26 (.19)	0.37 (.22)	0.24 (.20)	0,10 (.09)
Total (N= 210)	0.36 (.24)	0.27 (.24)	0.43 (.26)	0.27 (.20)	0.35 (.24)	0,25 (.20)	0,12 (.11)
F-ratio (2,207)	1.15	1.38	.77	1.11	1.71	.47	2.76

Numbers in parentheses are standard deviations for scale mean

The ideological distances show only small differences among the three manipulation groups for each individual party. The ideological distance between respondents and a party on the left or right side of the political spectrum or larger than the middle parties. As expected the ideological differences between respondent and the accompanying party voted for are small. An analysis of variance for this measure showed that the effect of the manipulation was just above the threshold for being statistically significant, $F(2,137) = 2.76$, $p = .067$.

Because none of the party variances are significant, this result is fully explained by the variance in self placement among the three manipulation groups. This variance is almost identical $F(2,208) = 2.76$, $p = .066$. Post hoc analyses with the Scheffe procedure indicated that the self placement of participants on a ideological scale is very close to statistically significant more to the right in the anger group ($M=4.92$, $SD=1.94$) than in relaxed or control group ($M=4.67$, $SD=1.93$). On the other hand the self placement on this scale is more to the left for the fear group ($M=4.18$, $SD=1.82$), Mdiff. anger-fear $= .74$, $p = .056$. Given the low N and a distribution that does not fit the normal curve a direct effect of the manipulation can not be concluded here, but it is an interesting point to remember for the main model.

Table 8: Means of ideological difference,self placement and policy scales by manipulation group

Means	Ideological distance	Selfplacement	Policy scale
Anger (N=73)	0.13 (.09)	4.92 (1.94)	0.50 (.22)
Fear (N= 67)	0,15 (.13)	4.18 (1.93)	0.46(.22)
Relaxed (N=70)	0,10 (.09)	4.67 (1.82)	0.47 (.20)
Total (N= 210)	0,12 (.11)	4.60 (1.92)	0.48 (.21)
F-ratio (2,207)	2.76	2.76	.65

Numbers in parentheses are standard deviations for scale mean

The policy scale is additional explanatory variable or a substitute for ideological distance.

Three survey questions designed to measure issue positions are combined in this measure. It is not possible to assign specific answers to certain parties, but a scale from these questions can be created. The answers are recoded in such a way that scores reflect positions on the political dimension from left to right. The scale itself is recoded in 0-1 range for comparison with the ideological difference scale. Cronbach's alpha for this scale is 0.65. This scale is highly correlated with self placement on a left to right scale (*Pearson's* = .68 p < .001, 1-tailed). This provides enough support for using ideological placement as a substitute for issue positions. Nonetheless, the issue position scale is included separately in the regression model as well to compare the effects. An analysis of variance showed the direct effect of the manipulation on the policy scale was not statistically significant, $F(2,207) = .65$, $p = .524$.

Party attachments

Candidate traits and issue positions are predictors for the use of contemporary information. The third independent variable for the model estimating the effect of emotion on the vote choice is party attachment. This predictor is assumed to reflect heuristic processing, or voting based on habitual clues. Respondents that indicated they in general lean towards a certain party were asked how strongly they felt attached to that particular party. Out of the 143 respondents that intent to vote for one of the 6 largest parties 32% indicate they have no attachment at all. Furthermore, one out five (22%) has strong attachments and about half (47%) little or some. This is an indication of the fairly weak attachments of Dutch voters to the political parties.

Using optional case selection a variable was created that combines the strength of attachments to the six largest parties. If a respondent intents to vote for example for the PVV, this measure reflects the strength of attachment to the PVV. It is recoded in 0-1 range for inclusion in the regression model. For comparison, the individual party measures are also recoded 0-1. The

42

strength of attachment to own party is not statistically significant correlated to age (*Pearson's* = .04 *p* < .61, 2-tailed), gender (*Pearson's* = -.11 *p* = .20, 2-tailed) or education level (*Pearson's* = -.08 *p* = .35, 2-tailed). The level of attachment increases with higher levels of political interest (*Pearson's* = .25 *p* = .003, 2-tailed). The party to which the attachment is measured shows a statistically significant correlation (*Pearson's* = -.21 *p* = .011, 2-tailed). This indicates that different parties have different levels of attached supporters. This can also be observed in table 9. The N for this column is lower as a result of case selection (Nanger = 53, Nfear = 43, Nrelaxed = 44).

 Care needs to be taken in drawing conclusions based on this last correlation, because some categories contain a very low N (as low as N = 4). Also, the overall attachments scores are low. There seems to be a split nonetheless. Parties with relatively high attachment values are VVD, PvdA and D66. On the other hand SP, CDA and PVV have less rigid support. Remarkably this split fits perfectly with the winners and losers of the last election. It is a preliminary conclusion, but it seems that parties who win elections gain stronger support. The opposite is also reflected in the data. This is actually a common pattern in political science. However, this thesis tries to answer the question whether emotions influence voting behavior. Therefore returning to results on the effect of emotion, a analysis of variance between the emotional manipulation groups is presented below.

Table 9: Mean scores of party attachment by manipulation group

Means	VVD	PvdA	PVV	CDA	SP	D66	Own party
Anger (N=73)	0.15 (.32)	0.06 (.19)	0.01 (.09)	0.04 (.18)	0.01 (.08)	0.09 (.22)	0.46 (.09)
Fear (N= 68)	0.08 (.26)	0.10 (.28)	0.01 (.08)	0.02 (.14)	0.07 (.21)	0.10 (.19)	0,57 (.13)
Relaxed (N=70)	0.14 (.32)	0.04 (.18)	0.03 (.16)	0.02 (.14)	0.04 (.18)	0.11 (.20)	0,55 (.09)
Total (N= 211)	0.12 (.30)	0.07 (.22)	0.02 (.11)	0.03 (.16)	0.04 (.17)	0,10 (.20)	0,52 (.11)
F-ratio (2,208)	1.05	1.12	.83	.15	2.23	.20	1.10

Numbers in parentheses are standard deviations for scale mean

 The support means for the individual parties in table 9 are low. For every party there is a

large number of respondents who do not support that party at all. The means would be higher if the variables were coded in such a way that these non-supporters were left out. However, the intent is to show differences among the manipulation groups and not to demonstrate the amount of support. This still possible though, comparing the (albeit low) means for each party gives an idea of the relative support for that party of all respondents in the sample. Note how the support for respondents' own party is much higher. None of the F-ratios is statistically significant. The means differ somewhat among the manipulation groups, this seems to be the result of a greater dispersion in the fear group. An additional chi-square test of independence showed no statistically significant relation between strength of party support and manipulation group X^2 (15, $N = 140$) = 22.69, $p =.09$. This result is close to being statistically significant, but for now there is not enough evidence for a direct effect of the manipulation on party attachments.

Table 10: % of party supporters that vote for their own party

Party Supported	% of votes for supporters of this party
VVD	97%
PvdA	90%
PVV	80%
CDA	100%
SP	73%
D66	93%

How many party supporters voted for the party they feel an attachment to? Table 10 is based on a cross-tabulation of party intended to vote for and the party participants say the feel attached to. A chi-square test of independence was performed to examine the relation between the two variables. This is statistically significant, X^2 (66, $N = 142$) = 717.36, $p <.001$. Many cells in the cross-table are empty (N=0), because supporters for a specific party that vote for another party are very rare. Party attachment is an almost perfect predictor for vote choice if a specific party is supported.

44

The results in the previous paragraphs have not provided much evidence that there is a direct effect of the emotional manipulation on the independent variables. Such an effect was not expected. Independent variables created are party attachment, candidate traits evaluation and ideological distance. For the last variable an alternative, issue placement, was created as well. Candidate traits, and ideological distance (or issue preferences) represent the use of contemporary information. Party attachment is used as a measure for habitual voting. The next step is combining them to test the hypotheses.

In short, voters who experience fear are assumed to base the vote-choice more on contemporary information. Thus, for these voters candidate traits and ideological closeness are more likely to be strong predictors. For voters who experience anger the opposite effect is expected. These voters will base their vote more on heuristics and thus party-attachment should be the stronger predictor for this group. To test these predictions the three predictor variables are entered in a binary logistic model in which the vote choice is the dependent variable. For each of the six largest parties a dichotomous variable reflects whether a respondent intents to vote for that party yes or no. The predictor variables entered show party-attachment, candidate trait evaluation and ideological distance with the 'own party'. The analysis is run separately for each party. The reason for this is that the 'own party' model shows no variance when all six parties are combined. The dependent variable has only one value then, because all the participants analyzed voted for one of the six parties. This was used a selection criterion for creation of the independent variables.

All independent variables are recoded to fit the 0-1 range. The dependent variable is coded 1 for the desired outcome, namely a vote for that party. A matrix scatterplot revealed there were no cases that could be identified as outliers. This is no surprise, since all the variables are limited in range. A Q – Q plot of unstandardized residual showed a normal distribution. Skewness is low,

0,233 (std. Error 0,277) and Kurtosis is relatively high and negative, - 1,166 (std. Error 0,451) indicating the distribution of the dependent variable is flat. This is not considered a problem here since respondents are not distributed over a scale, but over different political parties.

Next, as a preliminary model test a linear regression was run. This model is also used to test for collinearity of the independent variables. In this regression the scale of policy items was also included. The results are shown in table 11. Although the variables are all statistically significant correlated, the regression shows the tolerance and VIF scores are acceptable. Since the assumptions for logistic regression are met, the proposed binary logistic regression model is assumed valid.

Table 11: Linear regression results

	B	Tolerance	VIF
Candidate traits	- 2.78** (1.02)	.90	1.10
Ideological difference	- .25 (1.52)	.96	1.04
Policy preferences	- 3.65*** (.80)	.89	1.12
Party support	- .53 (.45)	.82	1.21
Constant	7.77 *** (.89)		
Adj. R square	.19		
Notes: *p<.05, ** p<.01, *** p<.001 Estimates are unstandardised regression coefficients, standard errors in parenthesis.			

In all the tables below with the logistic regression results the odds ratio is left out to save space. The numbers for this ratio are deduced from the reported odds *B*. Therefore it is not necessary to report these separately. In the columns the odds *B* are reported as well as their statistical significance (*p*-value). Standard errors are reported in parentheses. As measures for goodness-of-fit -2 log likelihood and Nagelkerke R squared are included in the tables. The three manipulation groups are compared in the columns. Below are the results for the largest party the VVD. Full tables of the other parties are included in the appendix. The tables that include knowledge are not displayed in the appendix, because there is no effect of this variable.

Table 12: Logistic regression results VVD with ideological distance

VVD	Anger		Fear		Relaxed	
	B (SE)	Sig.	B (SE)	Sig.	B (SE)	Sig.
Party attachment	.68 (.32)	.034	.70 (.53)	.188	.93 (.46)	.041
Ideological distance	1.59 (3.70)	.667	-.99 (3.68)	.788	1.56 (5.13)	.761
Candidate traits	2,72 (2.45)	.267	6.64 (3.73)	.075	4.46 (3.80)	.241
Constant	-4.29 (2.07)	.039	-8.30 (3.70)	.25	-6.52 (3.18)	.040
- 2 log likelihood	54.45		30.71		41.56	
Nagelkerke R^2	.22		.26		.30	
N	53		42		44	

Table 13: Logistic regression results VVD with policy scale

VVD	Anger		Fear		Relaxed	
	B (SE)	Sig.	B (SE)	Sig.	B (SE)	Sig.
Party attachment	.48 (.38)	.198	1.19 (.82)	.147	.84 (.50)	.093
Policy scale	10.33 (3.24)	.001	9.25(3.99)	.020	8.21 (3.42)	.016
Candidate traits	4.55 (2.85)	.110	12.97 (6.70)	.053	8.58 (5.32)	.107
Constant	-10.93 (3.34)	.001	-20.58 (8.42)	.014	-14.00 (5.69)	.014
- 2 log likelihood	34.59		14.39		32.17	
Nagelkerke R^2	.60		.68		.52	
N	53		42		44	

Table 14: Logistic regression results VVD including knowledge

VVD	Anger		Fear		Relaxed	
	B (SE)	Sig.	B (SE)	Sig.	B (SE)	Sig.
Party attachment	.80 (.50)	.108	1.50 (1.26)	.236	.72 (.52)	.168
Policy scale	15.48 (5.32)	.004	8.92 (3.95)	.024	7.89 (3.32)	.018
Candidate traits	7.78 (4.16)	.061	13.67 (5.09)	.064	8.83 (5.23)	.110
Knowledge	-2.63 (2.05)	.200	-2.88 (7.80)	.712	2.18 (2.64)	.409
Constant	-15.03 (5.49)	.006	-19.54 (8.64)	.024	-15.40 (6.10)	.012
- 2 log likelihood	24.89		14.23		31.45	
Nagelkerke R^2	.71		.68		.53	
N	49		39		44	

First of all, the policy scale performs consistently better than ideology as a predictor variable. Nagelkerke R squared is much higher for all the models that include policy scale. Furthermore, only in one of the 18 models does ideological distance get a statistically significant result. This indicates a problem with this measure. Conceptually these variables might have been related. A collinearity test however, showed no multicollinearities. The most likely cause of the poor

predictive performance of ideological distance is the lack of variance. The ideological distance with the preferred party is small for most participants. Also, the N for some categories are very low. For the PVV this even resulted in SPSS being unable to compute the model for two out of three manipulation groups. The results showed very high odds ratios and very large standard errors. This is typical for a low N for one or more cells. Furthermore the log-2 likelihood and Nagelkerke R squared indicate the same problem. For PVV the model can not be calculated for anger at all, because the number of votes is in this group is 0.

Second, including knowledge scales in the models did not yield any results. In none of the models the Nagelkerke R squared was significantly higher. There was no statistically significant Wald statistic or odds for knowledge. This is an indication that any result found is not caused by differences in political knowledge. So, what are the results found?

The models for PVV, CDA and D66 showed no significant results. For CDA and PVV there are even no results close to statistical significance. In the D66 model in the anger group policy scale odds ratios are improved and very close to statistical significance ($p = 0.097$). However, Nagelkerke R squared for this model is only 0.08. For the remaining parties VVD, PvdA and SP the anger and fear groups are compared to the control or relaxed group. In the anger groups the predictive value of party-attachment is lower in comparison with the relaxed groups. At the same time policy appraisals have a greater effect. For example, in the above VVD models the Wald statistic of the policy scale improves from 5.76 ($p = 0.016$) for the control group to 10.16 ($p < 0.001$) for th anger group, whereas in the fear group it remains 5.39 ($p = 0.020$). Thus for the participants in the anger group policy items are a better predictor of vote choice, than for participants in the control and fear groups. Also, for the anger group policy is the strongest predictor, in the other two groups candidate traits are better predictors. In the fear group the odds ratio for candidate traits is much higher than in the control group (see last column). This pattern is most clear in the VVD models. In the other party
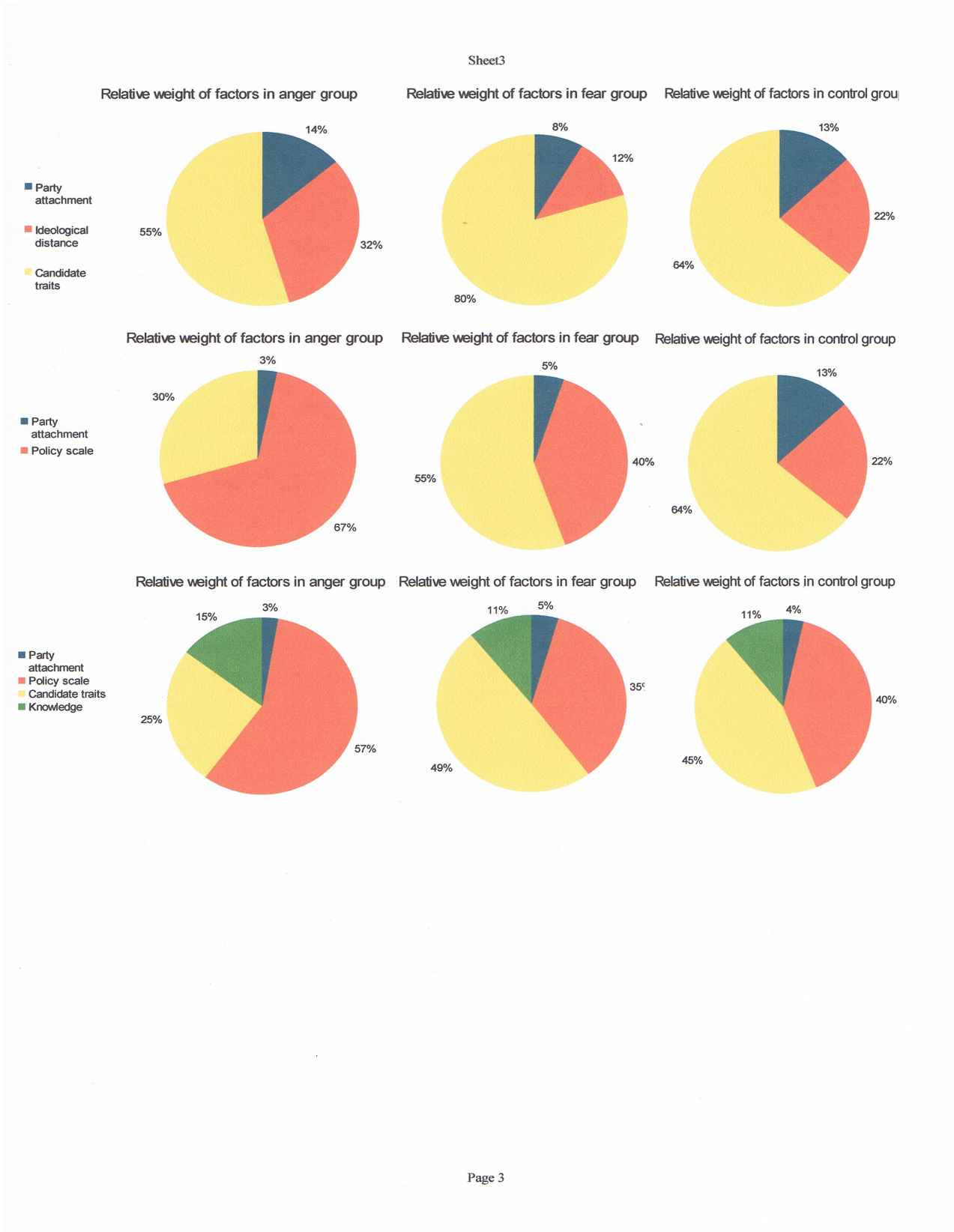
48

models no clear pattern can be distinguished. However, the partial results do all fit this pattern. For example, in the PvdA model there are no statistically significant results for candidate traits, but the policy scale does confirm to the established pattern.

This means the hypotheses that participants who are in the anger group base their vote more on party attachments can not be supported. The little evidence there is points in the other direction. Participants in both the anger and the fear groups base their vote more on contemporary information than on habitual clues. However, for the people in the anger condition this is highlighted by the better odds for policy preferences in predicting the vote whereas in the fear group this was not the case. In the fear group the candidate traits seem to matter more. Party attachment performs poorly as a vote predictor in any of the models.

A way to visualize these results is to compare the relative weights of the factors. This is possible, because all independent variables have been rescaled 0-1. This same method was used by Marcus et al. (2000) and Brader (2005). For each of the three different groups in the three VVD models a pie chart was produced. Some care must be taken when drawing conclusions, because not all results are statistically significant. A clear pattern emerges from these figures.

Compared to the control group, the anger group has a relative high weight of ideological distance and policy preferences. This effect is absent in the fear group, in which candidate traits are the strongest predictor. While these are much stronger than in the anger group, they are comparable to the control group. It seems that both anger and fear lead to the use of contemporary information, be it of a different kind. Party-attachment is low and shows no pattern. This means the hypotheses predicting the use of party attachment can not be confirmed. There is no evidence that participants who experience anxiety abandoned party-attachments. Conversely, no findings support the hypothesis that participants in the anger condition rely more on party-attachments.

Figure 1: Pie charts with relative weights of factors

Relative weight of factors in anger group

Relative weight of factors in fear group

Relative weight of factors in control group

- Party attachment
- Ideological distance
- Candidate traits

14%

32%

55%

8%

12%

80%

13%

22%

64%

Relative weight of factors in anger group

Relative weight of factors in fear group

Relative weight of factors in control group

- Party attachment
- Policy scale

3%

30%

67%

5%

40%

55%

13%

22%

64%

Relative weight of factors in anger group

Relative weight of factors in fear group

Relative weight of factors in control group

- Party attachment
- Policy scale
- Candidate traits
- Knowledge

3%

15%

25%

57%

5%

11%

49%

35%

4%

11%

45%

40%

50

Conclusion

Traditional models explaining voting behavior have focused on observable behavior, i.e. the vote, and deliberate consideration of the alternatives. However, this forgoes the fact that all voters are human. Humans have a continuous surveillance, attention directing system wired in their brain. This system can not be turned off and it has strong effects on behavior and decision-making. The brain is set up in such a way that emotion is intricately linked with rationality and memory. Emotions are not only immediate feelings, they act as surveillance system and traffic directors in the brain and in doing so are involved in feeling, thinking and doing. An experienced emotion has strong influence over how a stimulus is processed, interpreted, stored in memory and reacted upon. Most of all, emotions are the means by which our attention is woken.

The human brain is a master in developing routines. When encountering novel situations, threats or opportunities emotions provide the jolt needed to halt the routine and re-evaluate. Emotions then act as information processing or decision-making shortcuts, or heuristics. Anger and fear are the strongest and most widely recognized universal emotions and it is likely these influence the decision-making process the most.

In Political Psychology there are two prevailing theoretical frameworks in which the role of emotions on the individual vote decision is explained: the Motivated Reasoning model by Lodge, Taber et al. (2000, 2006) and the theory of Affective Intelligence (Marcus et al., 1993, 2000, 2006). The same factors that favor automaticity in the dual process model typify what Marcus et al. label complacent voters in their theory of Affective Intelligence. AI asserts that fear is the emotion that is characteristic for the activation of the surveillance system. However, in its operationalization it is mixed with anger, which has the opposite effect under certain conditions. Therefore this thesis has explored what the distinct effect of anger is on voting behavior in the Netherlands.

To test the hypotheses data was collected using an online survey, and after some initial analyses a logistic regression model was constructed in which the different information types serve as predictors for the vote. The design of the model is appropriate for the research question and data-availability. On the other hand, the method for collection of the data was most likely unsuccessful in manipulating the emotional state of participants to a large degree.

Problematic is that 40% of the participants refused to answer the manipulation question and stopped the questionnaire after answering only a few simple background questions. Furthermore, a manipulation check revealed only a very small portion of respondents reported an emotional state that corresponds with the manipulation. Was the manipulation flawed or was the medium by which it was delivered not suitable? It is not possible to answer this question with certainty, but it seems that an online survey is not the way to entice participants to deeply think about previous experiences that evoked strong emotions. The original version of this manipulation was performed in a laboratory setting and respondents were paid for their participation. This has most likely made them more willing to invest time and effort.

It remains doubtful whether participants experienced the intended emotions to a large degree. The manipulation check used is a very strict one. A more subtle measure probably gets better results. An example is asking respondents to indicate their feelings on several scales. The differences between groups can then be analyzed. Even if the differences are small, still (subtle) conclusion can be drawn. A big advantage is that almost all participants will answer these questions. Further, a more controlled environment in which the manipulation is performed should enhance the results. It needs to be ascertained that participants actually performed the manipulation task with full attention and in a serious manner.

Another possibility is performing survey research not using a manipulation task, instead relying on self reported emotions, a method that has had some initial results in the Netherlands. At

53

the same time this method leaves much room for expansion and improvement. In the past it has led to inclusion of anger and fear on the same dimension. This turned out to be misleading. Although the biology seems clear, there remains a lack of empirical support for the specifics of anger. Theories considering anger a third separate dimension in a model explaining the effect of affect on voting behavior are slowly developing in political science. A possible step forward is including the objects of anger and fear. The crucial determinant of these emotions is the attribution of guilt to a negative stimulus. In addition there is the question whether someone feels he can do anything about the situation to remove the negative stimulus. If both are answered positively anger is present.

The results of this study point to two separate effects of anger. First, respondents that experienced anger placed themselves more to the right on an ideological scale. The causal direction needs to be established further. Are people on the right more likely to be angry or is the anger the reason they shift more to the right? For fear the opposite effect was observed. These respondents placed themselves more to the left. A well known effect also found in this study is increased support for the parties that won the elections. The differences in placement might be a variation of this effect. After the elections a right-of-center government was formed. This possibly gave the voters on the right feeling that something can be done about problems such as the economic depression. Another possibility is that these voters have already been let down by their representing party the VVD. There have been some scandals in the past year ranging from corruption to policy failures and even outrage over giving up too much of the right side ideals. Polls show very low support.

The second effect is more substantive. Although there was no support for the hypothesis that anger would lead to more use of habitual voting, another effect was found. Both the negative emotions anger and fear increased the relative weight of contemporary information on the vote-choice. Respondents rated candidates in unique trait profiles. Only for fear the significance of candidate trait evaluations increased. This did not happen in the anger group. Instead anger

increased the relative weight of policy evaluations and of ideological distance. It is thus reasonable to suggest that emotions may alter the type of information voters pay attention to, and it may also alter the perception of that information. However, that does not mean that an experienced emotion directly changes voters preferences. Over time, multiple experiences of negative emotion may become stored in Long Term Memory (LTM) as part of the affective running tally. In the shorter term emotion has an indirect effect. When basing a vote on different information, it would not be surprising if the outcome was different.

In the Netherlands there is an ongoing debate that focuses on the question whether people vote for candidates or for parties. A question not asked is why either of these would attract votes for in the first place. One of characteristics of the Dutch electorate is that party attachments are weak. For any place on the left-right idealogical dimension there is a reasonably close alternative. So what determines which alternative is picked? Under different conditions people use different types of information, and a different decision-making process. Under condition of fear the personal traits of candidates likely to accurately predict the vote, under conditions of anger policy preferences are more prevalent. In the debate on candidate-centered voting this is completely omitted. It seems emotion has pointed to rational voters. They actually base votes on issues and policy.

In the Netherlands anger is more present than fear among the electorate. Politicians can make use of this, the most notable example is Geert Wilders. Not only does anger seem to correlate to more significance of policy or issue preferences, it is also a strong motivator. Valentino and Brader demonstrated that of all the emotions, anger is the most consistent and strongest in mobilizing people to engage in politics. This effect was observed in the 2010 Dutch elections where Wilders was able to mobilize people who otherwise would not have voted (Leeuwenburg et al., 2010). Making use of anger can attract otherwise disenchanted voters to look at your issues. These issues in turn can influence election outcomes.

Bibliography

Andeweg, Rudy B., and Galen A. Irwin. (2005). *Governance and Politics in the Netherlands*. London: Macmillian.

Babbie, Earl R. (2000). *The Practice of Social Research, 9th Edition.* Belmont: Wadsworth Thomson Learning.

Beunders, H. (2002). *Publieke tranen: de drijfveren van een emotiecultuur*, Amsterdam: Contact.

Brader, Ted. (2006). *Campaigns for Hearts and Minds. How Emotional Appeals in Political Ads Work.* Chicago: The University of Chicago Press.

Brader, Ted. (2005). "Striking a Responsive Chord: How Political Ads Motivate and Persuade Voters by Appealing to Emotions". *American Journal of Political Science* 49(2): 388–405.

Capelos, T., S.A.M. Rijkhoff en R. Leeuwenburg (2007). 'Anxiety, party identification and the vote: understanding dynamics of citizen preferences in Dutch politics', paper presented at the Annual Meeting of the American Political Science Association, Chicago, USA, August-September 2007.

Conover, Pamela J. and S. Feldman. (1986). 'Emotional reactions to the economy: I am mad as hell and I'm not going to take it anymore' in *American Journal of Political Science*, Vol.30: 1, pp. 50-78.

Conover, Pamela J. and S. Feldman. (1985). 'The Role of Inferences in the Perception of Political Candidates' in *Political Cognition* (eds.) R. Lau and D. Sears. Hillsdale, NJ: Lawrence Erlbaum Associates.

Damasio, Antonio. (1994). *Descartes' Error.* New York: G.P. Putnam's Sons.

Dijksterhuis, A. (2007). *Het slimme onbewuste, Denken met gevoel*, Amsterdam: Uitgeverij Bert Bakker.

Frijda, Nico H. (1988). *De Emoties*. Amsterdam: Uitgeverij Bert Bakker.

Hibbing, John R. and E. Theiss-Morse. (1998). 'The media's role in public negativity toward Congress: distinguishing emotional reactions and cognitive evaluations' in *American Journal of Political Science. Vol.* 42: 2, pp. 475-498

Huddy, Leonie, Stanley Feldman, Charles Taber and Gallya Lahav. (2005). "Threat, Anxiety, and Support of Antiterrorism Policies." *American Journal of Political Science*, 49: 593-608.

Isbell, Linda M. Victor C. Ottati, and Kathleen C. Bums. 'Affect and Politics: Effects on Judgment, Processing, and Information Seeking' in Redlawsk, David P. (ed.) (2006) *Feeling Politics: emotion*

in political information processing. New York: Palgrave MacMillan.

Leeuwenburg, R., A. van den Heuvel, M. de Jong, S. Wajer and M. Glim. (2010). *De kiezer op het pluche: Tweede Kamerverkiezingen 2010 in het zicht.* Den Haag: BMC Onderzoek.

Lodge, Milton, Charles Taber and Christopher Weber. 'First Steps toward a Dual-Process Accessibility Model of Political Beliefs, Attitudes, and Behavior' in Redlawsk, David P. (ed.) (2006) *Feeling Politics: emotion in political information processing.* New York: Palgrave MacMillan.

MacKuen, Michael, Jennifer Wolak, Luke Keele, and George E. Marcus. (2010). "Civic Engagements: Resolute Partisanship or Reflective Deliberation". *American Journal of Political Science* 54(2): 440–458.

MacKuen, Michael B., George E. Marcus, Russel W. Neuman, and Luke Keele. (2006). 'The Third Way: The Theory of Affective Intelligence and American Democracy' in A. Crigler, M. MacKuen, G. E. Marcus, & W. R. Neuman (Eds.), *The Affect Effect: Dynamics of Emotion in Political Thinking and Behavior.* Chicago, IL: University of Chicago Press.

Marcus, George E. Michael MacKuen, Jennifer Wolak, and Luke Keele. 'The Measure and Mismeasure of Emotion' in Redlawsk, David P. (ed.) (2006) *Feeling Politics: emotion in political information processing.* New York: Palgrave MacMillan.

Marcus, George E. (2002). *The sentimental citizen, Emotion in Democratic Politics*. University Park: Pennsylvania State University Press.

Marcus, George E. (2000). 'Emotions in Politics' in N. W. Polsby (ed.), *Annual Review in Political Science: Volume 3*. Palo Alto, CA: Annual Reviews.

Marcus, George E., Russell Neuman, and Michael B. MacKuen. (2000). *Affective Intelligence and Political Judgment.* The University of Chicago Press, Chicago.

Marcus, George E. and Michael B. MacKuen. (1993). 'Anxiety, Enthusiasm, and the Vote: The Emotional Underpinnings of Learning and Involvement during Presidential Campaigns'. *American Political Science Review*, Vol. 87: 3, pp. 672-685.

Marcus, George E. (1988). 'The structure of emotional response: 1984 presidential candidates' in: *American Political Science Review,* vol.82, no.3, pp. 737-761.

Mulder, Nicole. (2009). *Knettergekke ministers en ruggengraten van slagroom: Het gebruik van emotieopwekkende retorische middelen door Geert Wilders.* Universiteit Utrecht, Utrecht.

Ragsdale, L. (1991). 'Strong Feelings: Emotional Responses to Presidents' in: *Political Behavior*, vol. 13, no. 1, pp. 33-65.

Redlawsk, David P. 'Feeling Politics: New Research into Emotion and Politics'
in Redlawsk, David P. (ed.) (2006) *Feeling Politics: emotion in political information processing.*
New York: Palgrave MacMillan.

Redlawsk, David P and Richard R. Lau 'I Like Him, but ... : Vote Choice when Candidate
Likeability and Closeness on Issues Clash' in Redlawsk, David P. (ed.) (2006) *Feeling Politics:
emotion in political information processing*. New York: Palgrave MacMillan.

Rosema, M. (2007). ' How passionate is the electorate?' , paper presented at the 4th ECPR-
Conference, Pisa, Italy, September 2007.

Salganik, Matthew J. and Douglas D. Heckathorn. (2004). "Sampling and estimation in hidden
populations using respondent-driven sampling". *Sociological Methodology*, 34: 193-239.

Sieben, Inge and Liesbeth Linssen (2009). *Logistische regressie analyse: een handleiding.*
Nijmegen: Radboud Universiteit.

Simon, H. A. (1990). 'Invariants of human behavior'. Annual Review of Psychology, 41, pp. 1–19.

Steenbergen, Marco R. and Christopher Ellis ' Fear and Loathing in American Elections: Context,
'I'raits, and Negative Candidate Affect' in Redlawsk, David P. (ed.) (2006) *Feeling Politics:
emotion in political information processing*. New York: Palgrave MacMillan.

Turner, Jonathan H. and Jan E. Stets (2005) *The sociology of emotions.* New York: Cambridge
University Press.

Valentino, Nicholas A., Ted Brader, Eric W. Groenendyk, Krysha Gregorowicz, and Vincent L.
Hutchings. (2010) "Election Night's Alright for Fighting: The Role of
Emotions in Political Participation". *The Journal of Politics*, Vol. 73, No. 1, January 2011, Pp. 156–
170

Verhoeven, I. (2006) 'De emotionele uitdaging van de politiek' in: A. Korsten en P. de Goede
Bouwen aan vertrouwen in het openbaar bestuur. Den Haag: Elsevier Overheid, pp. 163-173.

Westen, Drew. (2007). *The Political Brain: the role of emotion in deciding the fate of the nation.*
New York: Public Affairs.

Appendix