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# Do we live in the age of emotion politics?

The effects of anger, disgust, hope, and nostalgia
communication on political support and polarisation

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**COLOFON**

# Do we live in the age of emotion politics?

The effects of anger, disgust, hope, and nostalgia communication on political support and polarisation

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# Chapter 1

General introduction

Does the communication of emotions help politicians to influence people? Over 2000 years ago, Aristotle wrote in his Rhetorics (ca. 350 B.C.E./1984) that a successful speaker must possess three equally important senses. First, a sense of *logos*: the ability to present and argue about certain facts regarding the situation at hand, and to make an argument for why a certain outcome should be achieved. Second, a sense of *ethos*: to present yourself as a moral, trustworthy speaker, who speaks in the best interest of yourself and others. Third, and lastly, a sense of *pathos*: the ability to touch the hearts of your listeners, and to make them feel passionate about the issue and your ideas. Aristotle believed that if one could balance these three senses, one would be able to convince any audience of one's position, and as such *pathos* could be an effective tool for politicians to influence their audience.

However, in recent years, there have been societal events and developments that shocked laypeople and political pundits alike, where political campaigns that seemed to violate this balance of the three Aristotelian rhetorical senses found political success. Perhaps most notable were the successes of the pro-Brexit camp in the United Kingdom, and the election campaigns of Donald J. Trump in the United States. Some of the statements from these campaigns were demonstrably false, and speeches made by these camps were particularly inflammatory and explicit in their word use (e.g., Morley, 2017; Yuhas, 2016). Following these political successes, political pundits started to ponder (once again, see Arendt, 1967) whether facts did not matter anymore in political debate, and suggested that, instead, emotions such as anger and disgust reigned supreme, thus generating a lay theory that we are living in a "post-truth" political age (Alcorn, 2014; Davies, 2016; Dunt, 2016). This lay theory assumed that communicating particularly negative emotions might help politicians to influence their audience by garnering political support and dividing the nation.

This thesis aims to examine how valid this lay theory is. We[1] do so via connecting these ideas about emotions and communication with psychological theorising and via the empirical and experimental study of whether and how communicating emotions in political speech may impact political support and polarisation. Below, we first discuss our operationalisation of *pathos* and connect it to the main psychological framework used throughout the empirical chapters of this thesis. Then, we consider the main research questions and the theoretical background for each chapter, together with a more specific preview of the three empirical chapters.

## THE ROLE OF EMOTIONS IN POLITICS, AND OUR OPERATIONALISATION OF *PATHOS*

The focus of this thesis follows the recent stream of theorising and research in psychology and political science that reflects a growing interest in the role of emotions in political contexts. For instance, Affective Intelligence Theory, developed by Marcus and colleagues

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[1] This thesis is the product of a close collaboration between me and my supervisors. As a result, I will use "we" instead of "I," and "our" instead of "mine".

(2000; 2011; 2019), has outlined how the *experience* of emotions such as anger, enthusiasm, and anxiety differentially impacts political cognition and behaviour, with anger and enthusiasm increasing people's reliance on political habits (i.e., voting for a party because you always have), and anxiety decreasing that reliance on habits and increasing the search for new political information. Similarly, much research has been done on the role of more positive emotions in specific political contexts, such as the experience of hope in intractable conflicts (Cohen-Chen et al., 2015; Cohen-Chen & Van Zomeren, 2018; Halperin, 2015), and the experience of nostalgia in immigration and national identity debates (Smeekes et al., 2018; Smeekes & Verkuyten, 2015). Studies have also examined the role of emotional experience in forming moral convictions and beliefs which then guide political choices (Bertolotti & Catellani, 2018; Catellani & Bertolotti, 2015; Morgan et al., 2010; Skitka & Bauman, 2008; Skitka & Morgan, 2014; Van Zant & Moore, 2015).

Although this work highlights the importance of people's emotional *experience* to influence their political thought, strategies, and behaviour, little is known about the *communication* of emotion. Indeed, this is how we, in this thesis, operationalise the Aristotelian notion of *pathos*. That is to say, we do not start from the emotional experience of the audience, but rather from the communicated emotional state of the political actor who conveys those emotions to the audience. From there, we consider how the audience reacts to and perceives the communicated emotions, examine the psychological changes communicated emotions bring about in audience members, and look at whether communicated emotions affect political support or polarisation. To this end, we theoretically apply insights from the *emotions-as-social information* model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010) to help understand and examine different psychological effects of communicated emotions, which we organised into two (not mutually exclusive) processes: *Emotional contagion* and *cognitive inferences*.

Emotional contagion occurs when communicated emotions elicit emotional changes in the perceiver. A range of possible emotional reactions is possible, with some emotions in some circumstances eliciting divergent emotional reactions (e.g., feelings of anxiety when confronted with an angry politician) and sometimes convergent emotional reactions (e.g., feelings of anger as a result of watching an angry politician). In this thesis, we focus on the second form of emotional reactions (Hatfield et al., 1993; Hatfield et al., 2014)[2] as one of the pathways through which the communication of emotions could achieve changes in political support or polarisation.

Cognitive inferences occur when emotion communication elicits more active information processing on the part of the audience. That is to say, the audience use communicated emotions to infer additional information regarding the communicator's perception of the

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[2] We note that more elaborated names have been used in the past to name this process more precisely, such as primitive emotional contagion (Hatfield et al., 1992), or concordant affective reactions (Epstude & Mussweiler, 2009). For convenience's sake, we will use the typically used terminology of "emotional contagion" throughout this thesis.

situation and future intentions. They can then use that information to inform how they will behave or what they believe. In this case, it could be said that listeners act as "lay psychologists" that use their knowledge of the antecedents and consequences of certain emotions to better prepare themselves for how to deal with a communicator that uses emotions in their messages. For instance, studies have found that, when dealing with an angry negotiator, people were more likely to offer more money, compared to when they were dealing with a sad one. This is because they inferred the angry negotiator to have a higher limit and to be more likely to break off the negotiations if people were to undercut that limit (Van Kleef et al., 2004). This process of *information inference* (Fridlund, 1994; Van Kleef, 2009) represents one of the cognitive responses to the communication of emotions, and in this thesis, we specifically focus on the inference of the politician's goals as a second pathway through which the communication of emotions could affect political support and polarisation.

## TESTING *PATHOS* IN POLITICS: DOES THE COMMUNICATION OF EMOTIONS IN POLITICAL MESSAGES HAVE ADDED VALUE?

With this model detailing the effects of communicated emotions, we reformulate some of the main assumptions of the lay theory posited by political pundits into the main research questions of this thesis: Does the communication of specific emotions significantly affect political support for an emotional communicator or affect polarisation in the audience, and if so: how? To answer these questions, we examine the effects that communicating anger, disgust, hope, and nostalgia may have on different outcomes such as support for the communicator and polarisation in society. We test whether emotional contagion and/or cognitive inferences occur and explain such potential effects on these outcomes. Moreover, to be able to generalise our findings to both sides of the political spectrum, we examine whether communicating these emotions is more likely to influence either the left or right side of the political spectrum, or lead to different psychological consequences for these different sides (given a relevant political issue for that side). As such, we aim to present a theory-guided and empirically informed account of whether and how the communication of emotions might "work" in political contexts, which enables us to examine the veracity of the lay theory that the communication of emotions has been, and can be, very (and perhaps too) influential in contemporary politics.

Across our studies, as reported in the three empirical chapters to come, we utilise experimental designs systematically varying which emotion is communicated to answer the research question specific to each chapter. More specifically, Chapter 2 asks what the effects are of **anger and disgust** communication, and Chapter 3 of **hope and nostalgia** communication, on **political support**. Chapter 4 focuses on the effects of the communication of **these same four emotions** on **political polarisation**. The general model and theoretical approach we utilise throughout this thesis can be seen in Figure 1.1 below.

**Figure 1.1**

*General theoretical model highlighting the two pathways for the studies in this thesis*
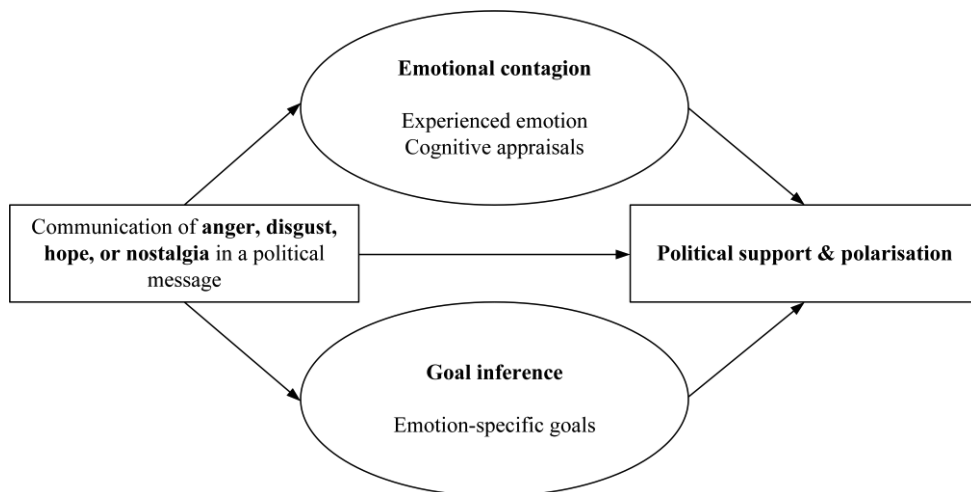


## THEORETICAL BACKGROUND PER CHAPTER

The main theoretical model we draw upon in all chapters of this thesis is the emotions-as-social-information model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010). However, as far as we know, this model has not been used yet to understand the communication of specific emotions in political contexts. The studies in this thesis thus apply a core part of this theoretical model, namely the psychological mechanisms outlined in the model (emotional contagion and inference), to the specific and rather different political contexts we focus on (e.g., increasing tuition fees for students in Chapters 2 and 3; Scottish independence in Chapter 4). This also means that we rely on the specific political contexts and tested emotions to meaningfully operationalise the mechanisms for each study. In the following section, we give an overview of the broader theoretical background we use to inform the research questions and designs of the studies in this thesis per chapter.

Chapter 2 focuses on the effects of anger and disgust communication on political support (for the communicator). We conceptualise these specific emotions in line with previous research as syndromes of cognitive appraisals, subjective experiences, and behavioural intentions (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985). Following this conceptualisation, we consider anger to be an emotion felt when an outside party consciously violates the important moral values one, or one's group, has (Kuppens et al., 2007; Roseman, 2001; Van Mechelen & Hennes, 2009), and disgust to be an emotion felt when being too close to an object or idea that is revolting to you (Roseman, 2001; Rozin et al., 1999). Connecting this to the EASI model, we argue that the contagion pathway leads to a greater perception that a moral violation has occurred and needs to be rectified (Skitka, 2010; Tetlock et al., 2000). Alternatively, we argue that the inference

pathway leads to inferences that the communicator wants to deal with the issue via either an approach (via anger) or avoidance (via disgust) solution. Support for the communicator can therefore be affected through both pathways in response to the communication of either anger or disgust. Furthermore, relying on research suggesting a moral-emotional difference between liberals (who would react more to harm violations and anger) and conservatives (who would react more to purity violations and disgust; Graham et al., 2009; Iyer et al., 2012; Rozin et al., 1999; Russell et al., 2013; Ugazio et al., 2012), we examine if communicated anger fits and works better for liberal audiences, and communicated disgust fits and works better for conservative ones.

Chapter 3 focuses on the effects of hope and nostalgia communication on political support (for the communicator). We conceptualise hope as a future-oriented emotion that is felt when people perceive that some action can be taken in order to reach a situation deemed better than the current one (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019), and nostalgia as a past-oriented emotion that is felt when reminiscing on a better past that is considered lost and thus far away from the present situation (Sedikides et al., 2008; Van Tilburg et al., 2019). Noting these differences and connecting them with the EASI model, which has not examined these specific emotions in political contexts yet, we reason that emotional contagion and goal inference could lead to different effects on support depending on whether hope or nostalgia is communicated. With emotional contagion, hope communication would increase support, and nostalgia communication would decrease it, as hope would increase, but nostalgia would decrease perceptions of how changeable the situation is. For goal inferences, the effects on support would be opposite, as hope would not provide a clear picture of what should be strived for, whilst nostalgia would focus on the idea of returning to past systems. Similar to Chapter 2, we focus on both liberals and conservative audiences, but given the focus on positive emotions here, we do not have clear predictions regarding potentially differential effects for these different groups.

Chapter 4 focuses on the effects of the communication of all four emotions on polarisation in society. We reason that by increasing polarisation in society, communicators could also ultimately increase support for their own ideas by driving people away from political alternatives. In line with research on polarisation, we investigate the effects of the communication of emotions on two types of polarisation: affective (i.e., the difference between one's evaluation of their preferred political party and their perceived political opponent) and perceived cognitive (the perceived difference that exist between the ideals of one's preferred political party and their political opponent; Iyengar et al., 2012; 2019; Iyengar & Westwood, 2015; Simon et al., 2019; Westfall et al., 2015; Wilson et al., 2020). We examine the differences between anger, disgust, hope, and nostalgia communication according to their holistic descriptions as used in the previous chapters. We reason that, because anger and disgust are aimed at the reputation and actions of the object the communicator talked about, their communication would be more likely to change people's evaluation of political parties and thus could have a greater effect on affective polarisation

via the process of emotional contagion. Conversely, we reason that, because hope and nostalgia focus more on the policy directions of the communicator, their communication would invite a comparison between the communicator's plans and the plans of the other parties the communicator (negatively) discussed, which could thus have a greater effect on perceived cognitive polarisation via the process of goal inference. Unlike the previous chapters, we focus on opposition party sympathisers, as this way we have a clear out-group and in-group present in the studies (the government and the opposition, respectively, that enabled us to measure polarisation). Below we offer a more specific preview of the empirical studies in the chapters to come.

## PREVIEW OF THE FOLLOWING CHAPTERS

Chapters 2 through 4 embody the empirical core of this thesis and systematically answer a set of related research questions on the power of communicated emotions in political messages. In these chapters, we tested how different communicated emotions affect political support and polarisation, whilst simultaneously considering the potential pathways through which changes can come about. Chapter 5, the general discussion, summarises all results, provides some further insights regarding the communication processes, and lays out the implications for future research and practice.

In Chapter 2, we tested whether the communication of anger and disgust affected support for representatives of student unions arguing against rising tuition fees among liberals in both the Netherlands (Study 1a) and England (Study 1b and 2), and for a representative of the conservative action group "Turning Point USA" arguing against the restriction of conservative speech and speakers on university campuses among conservatives in the USA (Study 3a and 3b). We also examined whether the communication of anger and disgust led to changes in participants' emotional experience (contagion), or their inference of the intentions of the communicator (inference). Across the studies (total $N = 907$), we found no consistent evidence that anger or disgust communication positively affected political support. In fact, we found some evidence that disgust communication may even *negatively* affect support. We also found that individuals, regardless of their political orientation, infer more negative, destructive goals (e.g., radical action and smearing goals) from both emotion messages, and in particular from the disgust message. Indeed, we generally found that the communication of anger and disgust led to greater goal inference than emotional contagion in people.

In Chapter 3, we tested whether the communication of hope and nostalgia affected political support, again among both liberal and conservative audiences. We present three studies (total $N = 430$), two with liberal English student participants reading a hope or nostalgia message against increasing tuition fees, ostensibly from a student union representative (Study 1a and 1b), and one with conservative English participants reading a message against the Stamp Duty Land Tax on property purchases, ostensibly from a representative of the political action group "Bright Blue" (Study 2). Similar to Chapter 2, we

found that political support is not affected by the communicated emotions, but that communicated nostalgia affects both contagion and inference processes (although the evidence for the inference process is more consistent). We also found that, similar to Chapter 2, there were no large differences between liberal and conservative audiences in their response to hope and nostalgia communication. These findings add to the results of Chapter 2 by showing that the communication of these specific emotions does not affect political support but does affect theoretically relevant psychological mechanisms involved.

In Chapter 4, we tested the effects of the communication of all four emotions thus far examined on polarisation in society. As noted, we focus here on polarisation as we consider increasing polarisation a possible tool to indirectly achieve greater support for one's own ideas by driving people away from political alternatives. Indeed, taking such an alternative angle may be another way to test the popular notion that we are living in a post-truth political age, as Chapter 2 and 3 found little evidence for the idea that emotion communication dictates political success (in terms of political support) directly. In two studies (total $N = 535$), studying opposition party voters around election time in the Netherlands (Study 1, regarding the government's handling of the pandemic) and Scotland (Study 2, regarding the possibility of Scottish Independence from the UK), we examined whether and how the communication of emotions communication may affect affective and perceived cognitive political polarisation. In line with the previous chapters, we found that none of the communicated emotions affected polarisation, but, although inconsistently across the studies in this chapter, they did affect contagion and inference processes.

Lastly, in Chapter 5 of this thesis (the general discussion chapter), we summarise the core findings per chapter in order to answer each chapter's research question. We then consider how and why each communicated emotion did (not) affect measures of contagion, inference, political support, and polarisation. After this comprehensive review and discussion of the empirical chapters' findings, we consider their implications, both theoretical and practical. We then offer suggestions on how future research could extend the findings presented in this thesis. Lastly, we consider the strengths and limitations of our research designs, manipulations, and sample selection, before ultimately returning to the lay theory about the communication of emotions and in politics and the issue of whether we are truly living in a post-truth political age.

# Chapter 2

Does adding anger and disgust to political messages increase political support?

# ABSTRACT

To test the popular lay theory that emotions have become more important than facts in political contexts, we conducted five experiments examining whether and how the use of anger and disgust in moralised political messages aimed at students may strengthen political support for the communicator through either emotional contagion or goal inference processes. Studies 1a, 1b, and 2 (total $N = 599$) focused on a Dutch/English liberal student union representative speaking out against rising tuition fees, and Studies 3a and 3b (total $N = 308$) on a conservative spokesperson speaking out against (conservative) speech restriction on campuses in the USA. Examining the effects of moralised political messages manipulated to express either anger, disgust, or no emotion, we found that emotion communication did not affect support in Studies 1a and 1b, but moderately decreased support in Studies 2, 3a, and 3b, with this backfiring effect being the strongest for disgust communication. Furthermore, we found support for a goal inference account over an emotional contagion account, with both emotional messages, but the disgusted message more so, strongly increasing inferences of goals of engaging in radical action and political smearing, whilst leaving participants' emotional states unaffected. Liberals and conservatives responded similarly to emotion communication, though conservatives appeared to react more strongly. We discuss the implications of these results, which show that audiences infer additional information from expressed emotions in moralised political speech, rather than blindly follow them.

The present political age has been characterised as one of "fake news," "alternative facts," and "post-truth" (e.g., Alcorn, 2014; Davies, 2016; Dunt, 2016). Central to these views is the belief that the electorate is easily swayed by emotions (Aristotle's *pathos*), rather than by facts and logic (Aristotle's *logos*) (Aristotle, ca. 350 B.C.E./1984). We know surprisingly little, however, about whether the communication of specific emotions can help politicians to increase support for them. Moreover, there are different accounts for how this might work psychologically – for instance, communicated anger or disgust may increase the audience's own anger or disgust (*emotional contagion*; Hatfield et al., 1993; 2014), or enable inferences about the goals of the politician (*goal inference*; Fridlund, 1994; Van Kleef, 2009). The main goal of the research in this first empirical chapter is thus to explore *whether* and, if so, *how* the communication of anger and disgust in political messages affects political support. Such answers are necessary to increase our understanding of the effectiveness of *pathos* in political communication.

We report five experiments testing specifically whether and how the use of *anger* and *disgust* in political messages increases political support across different political contexts (i.e., the USA and UK) and political audiences (i.e., liberal and conservative). We focus on anger and disgust as key emotions to understand in terms of their communicative effects, as these emotions have been linked to morality and perceived moral violations in the literature on moral psychology (e.g., Haidt, 2012; Rozin et al., 1999). Indeed, due to this close connection between emotions and morality, the communication of these two emotions may fit particularly well with moralised political messages, and could potentially strengthen political support for the communicator, given a right match between the audience's political orientation and corresponding values. Our systematic approach to studying this topic allows us to test whether the communication of anger and disgust in political messages reliably affects political support, through what mechanism (emotional contagion or goal inference) any changes come about, and whether the effects of emotion communication are the same or different for liberals and conservatives.

**The potential importance of anger and disgust in moralised political messaging toward liberals and conservatives**

The moral domain (including, but not limited to values, norms, principles) is an important psychological force in political contexts. People have indicated to prefer a moral (i.e., sincere, honest, trustworthy) politician to a warm or competent one (Bertolotti & Catellani, 2018; Catellani & Bertolotti, 2015). Both the perceived morality of candidates (Skitka & Bauman, 2008; Van Zant & Moore, 2015), and voters' moral convictions — attitudes reflective of their moral principles — regarding political issues have been found to predict political support (Morgan et al., 2010; Skitka & Bauman, 2008).

Moralised political messaging may increase support by homing in on these important predictors of support. Indeed, research has found that the framing of a message in moral terms can increase the attention paid to a political message, if the frame used corresponds to moral

values held by the addressed audience (Nelson & Garst, 2005). Moreover, such fitted moral frames can even persuade voters to support traditionally counter-partisan positions (Feinberg & Willer, 2013; 2015; 2019). However, little is known about the potential beneficial communicative effects of adding anger and disgust to such messages with respect to political support.

One reason for this gap in knowledge is that research has focused almost exclusively on the *experience* of anger and disgust in the context of moral value violations. Indeed, starting from appraisal theories of emotions (e.g., Roseman & Smith, 2001; Smith & Ellsworth, 1985), both the antecedents and consequences of the experience of anger or disgust closely mirror the description of and responses to moral value violation events. Notably, anger arises when a person appraises a situation as strongly negative and caused by a different party, and facilitates either approach or avoidance reactions (Kuppens et al., 2007; Roseman, 2001; Van Mechelen & Hennes, 2009), whereas disgust arises when the situation is perceived as negative, caused by a specific object or circumstance, and facilitates avoidance reactions (Roseman, 2001; Rozin et al., 1999)[3]. Furthermore, anger and disgust are frequently experienced in response to moral value violation events (e.g., Giner-Sorolla & Chapman, 2017; Kollareth & Russell, 2019; Landmann & Hess, 2017; Tetlock et al., 2000). The strongly intertwined nature of emotion and morality has led some to argue that the experience of emotions is a necessary antecedent of perceiving a moral value violation (the intuitive primacy principle; Haidt, 2001; 2007; 2012; Wisneski & Skitka, 2017). If so, then communicating anger and disgust may strengthen the persuasive power of a moralised political message.

However, some have argued that *different* moral violations relate more strongly to different emotions, with anger being more strongly related to violations of harm or fairness values, whereas disgust is more strongly related to purity value violations are violated (Rozin et al., 1999; Russell et al., 2013; Ugazio et al., 2012). Therefore, if the communication of anger and disgust relies on the moral aspect of the political message, and the effectiveness of moral framing of a message is dependent upon the audience's values (Feinberg & Willer, 2013; 2015; 2019; Nelson & Garst, 2005), it is important to examine which moral values are held by groups at different ends of the political spectrum, as that would determine which emotion may be more effective in garnering support.

In this sense, liberals seem mainly concerned with harm and fairness values, whereas conservatives also seem concerned with authority, loyalty and purity values (Graham et al., 2009; Iyer et al., 2012). Subsequently, one can expect that liberals would experience more anger when they believe an immoral act has occurred, whereas conservatives would experience more disgust. Some previous research has found such emotional experience differences between the two groups, with conservatives being more disgust-sensitive (e.g.,

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[3] The theme of anger can be described as a response to others violating your or your group's important values (Smith & Lazarus, 1993), whereas disgust can be described as a response to being too close to a revolting object or idea (Lazarus, 1991). These themes are also suitable descriptions for moral value violations.

Inbar et al., 2009; Terrizzi et al., 2013). Extending these findings to the present research implies that an anger framing should fit and thus "work" best with liberal audiences, whereas a disgust framing should fit and thus "work" best with conservative ones.

However, such fine-grained distinctions regarding whether anger and disgust fit with different values, and whether liberals and conservatives are more susceptible to these emotions, have been contested by a number of researchers. Some authors have argued that only anger (Kayyal et al., 2015; Royzman et al., 2014), or only disgust (Hutcherson & Gross, 2011) should be considered as the true moral emotion, and others believe that there is a more general emotional response to immorality which both anger and disgust expressions are indicative of, and that differentiation between these emotions is not beneficial (Cameron et al., 2012; Nabi, 2002). Furthermore, some authors have noted that the sensitivity to and experience of disgust is not as uniquely conservative as previously argued (Elad-Strenger et al., 2019), and that — particularly important when considering whom to support — the moral values liberals and conservatives use for their judgements of influential people do not meaningfully differ (Frimer et al., 2013).

Against this backdrop of mixed findings, examining the communication of both anger and disgust toward both liberal and conservative audiences in the context of a moralised political message (thus asserting that a moral violation is present), the current studies help answer the question of whether liberals respond more to anger messages and conservatives more to disgust messages (in terms of political support), or whether they both respond similarly to either message.

**Emotional contagion versus goal inference as potential explanations**

We differentiate two potential ways through which the communication of anger and disgust in political messages affects political support: through what we refer to as *emotional contagion* (e.g., Hatfield et al., 1993) and through what we refer to as *goal inferences* (Fridlund, 1994; Van Kleef, 2009). We focus on these two reactions as relevant aspects of more general reactions to emotion communication as theorised in the *emotions-as-social-information* (EASI) model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010). This model posits that either affective reactions or cognitive inference reactions can result from perceiving an emotion expression, with these processes sometimes leading to opposite and sometimes leading to the same behavioural response (Keltner & Haidt, 1999)[4]. This general distinction is relevant to our research question and context because it offers two pathways that may explain why adding anger and disgust to a political moralised message may increase

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[4] We note that an important moderator to consider before looking at the possible individual reactions is the perceived appropriateness or extremity of an emotional response. Indeed, any emotion communication may be perceived as a break from a normative expectation of how a political actor should communicate, which may have a negative effect, as the communicator may elicit character-damaging negative emotional reactions (Helweg-Larsen & LoMonaco, 2008; Stamkou et al., 2019), and may interfere with the other proposed pathways, as the general negative emotional response to such a display takes precedence over reactions (Van Kleef & Côté, 2007). We therefore include measures of perceived appropriateness or extremity in the studies to come.

political support. We discuss each pathway below, as applied to the type of emotion communicated and the audience to which it is communicated to.

### Emotional contagion

The *emotional contagion* pathway to political support fits with the affective reaction side of the EASI model and builds on the connection between the experience of emotions and the perception of the moral importance of an issue and the need to address it. The concept of emotional contagion refers to events where observers of someone else's emotion start to experience the same emotion (Hatfield et al., 1993; Hatfield et al., 2014). Indeed, some previous research has assumed that this is the primary response to emotion communication by politicians (Glaser & Salovey, 1998; Sullivan & Masters, 1988). Furthermore, research has shown that emotional contagion can occur in the absence of face-to-face interaction (Van Kleef et al., 2004) and via digital means (Goldenberg & Gross, 2020), and that moral-emotional contagion of political messages occurs on social media (e.g., Brady et al., 2017; 2018).

We believe that emotional contagion can lead to changes in support as it can amplify the moral motivation to act. Moral motivation refers to the consistent finding that people are strongly motivated to act in order to protect or restore their moral values (Haidt; 2007; Haidt & Bjorklund, 2008; Skitka, 2010; Tetlock et al., 2000). Moral amplification refers to an implication stemming from the intuitive primacy principle of morality, so that greater experience of moral emotions amplifies the perception of a value violation and in turn the motivation to restore threatened moral values (Horberg et al., 2011).

Applying this to the present research context, we hypothesise that participants who are exposed to a moralised political anger (or disgust) message feel increased anger (or disgust) compared to those who are exposed to a moralised political message that does not explicitly communicate the emotional state of the communicator. Given the link with morality, this should lead to an increase in moral conviction regarding the issue, and subsequently, an increase in the willingness to support the communicator that wants to handle the situation. Furthermore, this effect may be qualified by the political orientation of the audience, such that only experienced anger would increase support for the communicator among liberals, whereas experienced disgust would increase support among conservatives.

### Goal inference

The *goal inference* pathway to political support fits with the cognitive inference pathway of the EASI model and distinguishes itself from the emotional contagion pathway by focusing on perceptions of the communicator's solution to the perceived moral problem (rather than amplifying the perception of a moral violation or problem). The concept of goal inference entails that observers of emotional political communication can use the communicated emotion as an additional source of information, notably to infer what goals or intentions the communicator has (Fridlund, 1994; Van Kleef, 2009). Indeed, studies have shown that

inferences made by the audience regarding the intentions of a communicator that uses emotions in their speech can lead to favourable outcomes for the communicator. For instance, the anger communication can lead to better outcomes in negotiations for the communicator, as the opposing side can infer that the communicator has a high limit and is unwilling to give in (Van Kleef et al., 2004).

To understand what goals can be inferred from anger and disgust in the context of moralised political communication, it is important to examine the appraisals underlying and behaviours resulting from the experience of anger and disgust. In the case of *anger* communication, the audience's knowledge that anger is associated with appraisals of a different party violating important values, may lead them to infer that the communicator has approach intentions as they are trying to seek reparations (Carver & Harmon-Jones, 2009; De Vos et al., 2013; 2018; Pennekamp et al., 2007). By contrast, in the case of *disgust* communication, the audience, based on their knowledge that disgust is elicited by being too close to a revolting idea, may infer that the communicator wants to avoid the situation that elicited it (Roseman, 2001; Shook et al., 2019). Thus, in terms of concrete goals, anger communication may lead to perceptions of the communicator having approach goals (e.g., wanting to *work with those in charge of the system to achieve change, and showing one's own good intentions*). Conversely, disgust communication may lead to perceptions of the communicator having avoidance goals (e.g., wanting to *replace the current system in its entirety, and smearing the current people in charge of it).*

Such goal inferences can be rather influential. Research has shown, for example, that campaigns using negative strategies such as smearing can have negative effects on the candidate they are trying to promote (Banda & Windett, 2016; Carraro et al., 2010; Catellani & Bertolotti, 2014). Therefore, we expect that anger communication and its associated approach goal inferences would more likely lead to an *increase* in political support, whereas disgust communication, which can lead to more negative and less appropriate avoidance goal inferences, would more likely lead to a *decrease* in political support.

**Overview and hypotheses**

In five experiments, we investigated whether and how the communication of anger and disgust in moralised political messages affects political support for the communicator (through either emotional contagion or goal inferences) among liberal and conservative audiences, assuming the communication of emotions is not considered too inappropriate. Figure 2.1 at the end of the section provides an overview of our conceptual model that guides our predictions.

More specifically, if the *emotional contagion* pathway is valid, we expect that a moralised political anger message would lead to an increase in experienced anger, whereas a moralised political disgust message would lead to an increase in experienced disgust, compared to a moralised political non-emotion message. For a liberal audience, we expect that only the increase in anger would be associated with an increase in support for the communicator

compared to a non-emotion message, whereas the increase in disgust would not lead to a change in support compared to a non-emotion message, and we expect this effect to be mediated by an increase in their moral conviction regarding how the situation should be. For a conservative audience, the reverse is expected, so that experienced disgust leads to an increase in support via an increase in their moral conviction regarding how the situation should be, and experienced anger has no effect compared to a non-emotion message.

If the *goal inference* pathway is valid, we expect that, for both liberal and conservative audiences, a moralised political anger message would lead to an increase in the perception of approach goals, whereas a moralised political disgust message would lead to an increase in the perception of avoidance goals, compared to a moralised political non-emotion message. We further expect that the inference of approach goals will lead to an increase in support for the communicator, whereas the inference of avoidance goals will lead to a decrease in support for the communicator.

We tested our hypotheses in five experiments, presenting Dutch (Study 1a), English (Study 1b and 2), and US (Study 3a and 3b) students with experimentally manipulated moralised political messages from a representative of the Dutch Student Union (DSU, Study 1a), the National Union of Students in England (NUS, Study 1b and 2), and Turning Point USA (TPUSA, Study 3a and 3b) speaking out against rising tuition fees (Study 1a, 1b, and 2) and against speech restriction measures on campus (Study 3a and 3b). Within this message, we systematically varied whether the representative used anger, disgust, or no emotion. We measured perceived message appropriateness [5] (a boundary condition for emotion communication), political support for the representative, experienced anger and disgust, moral conviction regarding how the situation should be changed, and perceived approach and avoidance goals. This identical set-up across studies enabled us to systematically examine, across populations from different countries and ends of the political spectrum, whether and how the use of anger and disgust adds to moralised political messaging aimed at increasing political support.

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[5] For Study 1a, we did not yet include a measure of appropriateness at the beginning of the study. However, starting from Study 1b, all studies measured appropriateness of the message.

**Figure 2.1**

*Conceptual model of how anger and disgust communication may affect political support*
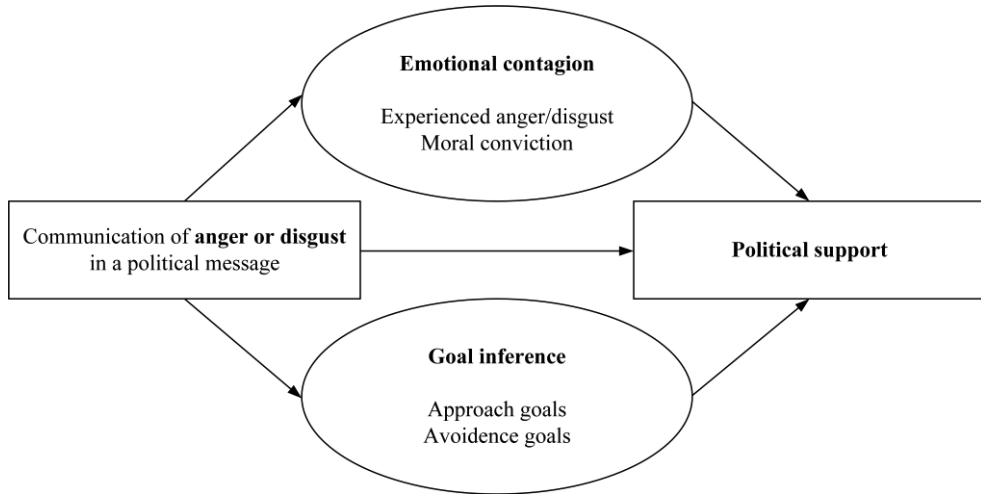


## STUDY 1A, 1B, AND 2: METHODS

Study 1a, 1b, and 2 all investigated the effects of anger and disgust communication on a liberal audience, in the context of the issue of rising tuition fees in the UK (see also for example, Saab et al., 2016; Tausch & Becker, 2013).

**Participants and Design**

Study 1a, 1b, and 2 used a between-subjects experimental design. Participants were randomly assigned to one of three conditions in Study 1a and 2 (Anger vs. Disgust vs. Non-emotion message), and to one of four conditions in Study 1b, where we added another non-emotion condition (to experimentally test the effect of message length). Study 2 had a decreased list of variables and new pilot-tested manipulation messages, in order to offer a more focal and confirmatory test of our hypotheses.

For Study 1a, 142 students at the University of Groningen were approached, 112 first-year psychology students who completed the online survey for course credit, and 30 students from the faculties of Science, Economics and Arts who completed the survey on paper voluntarily. For Study 1b, 415 English students from the northeast, northwest, southeast and southwest regions of England were collected via Prolific Academic and received a small monetary reward for participating. We anticipated that the tuition fee issue would be more pressing for students from these regions, where the average income is lower than the London area (Office for National Statistics, 2018). For Study 2, 513 English students were collected via Prolific Academic and received a small monetary reward for participating, but no region restriction was used for sampling to increase the sample size. Participants that did not finish the survey, or indicated that their data should not be used, were removed for the analyses.

This was the case for four and five participants in Study 1a, for 15 and 12 participants in Study 1b, and eight and one participant(s) in Study 2, respectively.

Based on quality checks, the sample was further reduced. Participants were included if they spent at least seven (Study 1b) or 10 seconds (Study 1a and 2) on the page with the (shorter) non-emotion message, or 20 (Study 2) or 24 seconds (Study 1a and 1b) on the page with the emotion message, shared a similar opinion to the communicator (lower or keep tuition fee amount the same), and successfully completed the instructional manipulation check. The completion times were determined by visual inspection of the distribution of completion times, as well as the relative lengths of the messages, which differed slightly across studies with different completion time criteria as a result. Two checks assessing thoroughness and condition assignments based on recalling textual elements were not used for sample reduction, due to ambiguity in the wording and answers for these checks. Following these guidelines, 92, 191, and 316 participants remained in Study 1a, 1b, and 2, respectively (1a: $N_{anger} = 34$, $N_{disgust} = 29$, $N_{Non-emotion} = 29$; 1b: $N_{anger} = 47$, $N_{disgust} = 52$, $N_{Non-emotion Long} = 49$, $N_{Non-emotion Short} = 43$; 2: $N_{anger} = 98$, $N_{disgust} = 104$, $N_{Non-emotion} = 114$). In Study 1a and 1b, both samples indicated a politically liberal orientation, scoring below the midpoint of the seven-point political orientation scale (1a: $M = 3.17$; 1b: $M = 3.09$), and in all studies, the samples were relatively engaged with the topic, scoring above the midpoint of the scale (1a: $M = 3.84$; 1b: $M = 4.15$; 2: $M = 3.88$)[6]. In Study 1a and 1b, there were significant differences between non-emotion and emotion message conditions with regards to topic engagement (1a: $p_{overall} = .020$; $p_{emotion\ vs\ non-emotion} = .026$; 1b: $p_{overall} = .053$; $p_{emotion\ vs\ non-emotion} = .011$). Subsequently, further analyses for these studies controlled for the effect of this difference. The political orientation measure was not collected in Study 2 due to changes in privacy regulations. Information regarding the samples' gender, age, and nationality distribution can be found in the Supplementary Materials Chapter 2, section 1 in Appendix 1.

**Procedure**

For Study 1a, the online data was gathered from January to March 2018; the questionnaire data was gathered in May 2018. For Study 1b, the data was gathered in February and March 2018. For Study 2, the data was gathered in August and September 2018. After giving consent, participants provided demographic information and read a short text explaining how

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[6] Participants indicated their political orientation by describing themselves as 1 (Very/Strong Left-wing) to 7 (Very/Strong Right-wing) using the following three items after the stem: *regarding economic issues I would describe myself, regarding social issues I would describe myself, generally I would describe myself* (1a: α = .88; 1b: α = .90). Similarly, they indicated their engagement with topic using three items*: I am interested in/actively engage with others about the topic, I think about the topic in my day-to-day life, I talk about the issue with others* (1a: α = .80; 1b: α = .90, 2: α = .88). Participants indicated their attitude towards tuition fees on a scale ranging from 1 (Tuition fees should be decreased so that education is free) to 5 (Tuition fees should be increased a lot/ to cover all costs of education).

the tuition fee system was organised and how tuition fees had steadily increased over the years. Participants were then asked to indicate how engaged they were with the topic. After responding to these items, participants were randomly assigned to one of the three (Study 1a/ 2) or four (Study 1b) conditions. They first read a short paragraph explaining how the increase in tuition fees had attracted opposition from parties such as the Dutch Student Union (Study 1a) or the National Union of Students (Study 1b/2), and that they would read a statement made by a union representative. After reading the message, participants completed the questionnaire containing key measures of political support, experience of anger and disgust, moral conviction regarding their position on the tuition fee issue, approach and avoidance goals, and perception of the message[7]. We also included exploratory measures but did not further analyse those (see Supplementary Materials Chapter 2, section 2 in Appendix 1 for an overview). Participants then completed several quality checks. Finishing the questionnaire, participants were debriefed and thanked for their participation.

**Manipulation and Measures**

Participants answered by indicating their agreement on a Likert-type scale ranging from 1 (Not at all) to 7 (Very much), and mean scores were calculated. The key dependent variables are described here. The full manipulation texts and descriptions of the Instructional Manipulation Check can be found in the Supplementary Materials Chapter 2, sections 3 and 4 in Appendix 1.

*Manipulation*

In the emotion conditions, participants read messages consisting of three paragraphs, whereas for the non-emotion condition in Study 1a and Study 1b, only the first paragraph was used. We included a second non-emotion condition in Study 1b that consisted of three paragraphs, to control for any effects of text lengths between the non-emotion and emotion conditions, but that did not contain any emotion terms.

The first paragraph presented the issue of rising tuition fees as fundamentally immoral (to indicate the moralised nature of the message). The second paragraph elaborated on this claim, using relevant emotion terms (i.e., infuriating, anger, outrage for anger; disgusting, revulsion, rotten for disgust) to communicate the representative's emotional state in the anger and disgust conditions. The third paragraph restated the claim and supplemented it with a call for support. As there were differences between the two non-emotion conditions for only two variables, Study 2 returned to a three-condition set-up. Furthermore, Study 2 used new, pilot-tested manipulations designed to more effectively communicate the emotions of anger and disgust compared to the messages used in previous studies. More information on the pilot test can be found in the Supplementary Materials Chapter 2, section 5 in Appendix 1.

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[7] In Study 1a, only the participant that volunteered to complete the survey on paper completed the items regarding the perception of the message, leading to 22 participants that completed these measures in that study.

*Checks*

Participants indicated whether the representative was explicitly *angry, disgusted* or *did not mention their emotional state*. To differentiate the two non-emotion conditions in Study 1b, we checked whether participants had read an argument about universities being pushed as brands, which was the argument used in the second paragraphs of the messages. As quality checks, they then indicated whether they had answered the questionnaire seriously, whether the message was focused on morality or on money, and completed an instructional manipulation check (Oppenheimer et al., 2009). The checks using recall of textual elements were not used, as both money and morality were mentioned in the message, and we believed that, whilst the message only explicitly mentioned one emotion, it was relatively easy to imagine the other emotion being felt and therefore reported.

*Perception of the message*

Participants indicated their perception of the message using six items: *I believe that the tone of the message of the student representative was… fitting, appropriate, fair, legitimate, extreme, authentic.* Factor analysis showed that extremity and authenticity had to be considered separate to the appropriateness scale, forming three final scores: message appropriateness (4 items; 1a: $\alpha = .92$; 1b: $\alpha = .93$; 2: $\alpha = .94$), message extremity, and message authenticity. As we were mainly interested in this variable as a boundary condition as laid out by the EASI model, and authenticity on its own did not seem relevant in this context, we did not further analyse this variable.

*Support for the representative*

Participants indicated their support for the representative using three items: *I think this representative acts on behalf of my values and interest, I believe in the goals of this representative, I support this representative* (1a: $\alpha = .90$; 1b: $\alpha = .93$; 2: $\alpha = .94$).

*Emotional contagion*

**Experienced anger and disgust.** Participants indicated how much anger and disgust they felt with regards to the issue using two items per emotion: *When thinking about the issue of increasing tuition fees, I feel… angry, outraged* (1a: $r = .80$; 1b: $r = .85$; 2: $r = .76$), *disgusted, repulsed* (1a: $r = .91$; 1b: $r = .79$; 2: $r = .84$; all $p < .001$).

**Moral conviction regarding their attitude towards tuition fees.** Participants first indicated their attitude towards tuition fees on a scale ranging from 1 (Tuition fees should be decreased so that education is free) to 5 (Tuition fees should be increased a lot). As indicated, only those scoring a 3 (Tuition fees should stay the same) or lower were included in the analysis. Participants then rated their moral conviction regarding this attitude using four items adapted from Skitka and Morgan (2014), and Van Zomeren and colleagues (2012): *My opinion about the issue of increasing tuition fees… is reflective of my core moral values, is reflective of my fundamental beliefs regarding right and wrong, is a universal one that should*

*apply around the world, is a universal one that should apply now and in the future* (1a: α = .90; 1b: α = .89; 2: α = .89).

### Goal inference

For the goal inference items, we self-generated the items based on the behavioural consequences associated with anger and disgust (e.g., Roseman, 2001; Rozin et al., 1999) and that fit with the context of our studies. For the generation of the items, we focused on the difference in approach and avoidance motivation between anger and disgust, as well as considered personal-level variables (reflecting on the character of the communicator and their opponent) and system-level variables (reflecting on the plans on how to deal with the discussed system). Over the course of the studies, we further refined these items.

**Approach goals.** Participants indicated their perception of two approach goals, measured using four items, two per goal*: I believe that the union representative wants… to change the minds of those in charge of the issue, to change the debate about the issue* (bring about change within the system goal), *to portray themselves as fighting for a good cause, to portray themselves as a person concerned with the well-being of students* (appear as a moral person). Factor analysis showed that the items for bringing change within the system needed to be considered separate. The goal to appear as moral person items could be combined (1a: $r$ = .61; 1b: $r$ = .69; both $p$ < .001). In Study 2, these goals were both measured using single items: *I believe that the union representative wants… to change the system by influencing those in charge of it, to portray themselves as a moral and good person.*

**Avoidance goals.** Participants indicated their perception of two avoidance goals, measured using four items, two per goal: *I believe that the union representative wants… to **radically** change the current tuition financing system, to break down the tuition financing system* (bring radical change to the system), *to point out the faults of the current tuition financing system, to portray the current people in charge of the issue as immoral and evil people* (smearing opponents) Factor analysis showed that the item to point out the faults of the system better fit with the items for measuring radical change, and as such, these three items were combined into a single scale (1a: α = .74; 1b: α = .60). The point out the political leaders as evil and immoral item was kept separate. In Study 2, these goals were both measured using single items: *I believe that the union representative wants… to change the system by radically overhauling it by any means possible, to portray those in charge of the issue as immoral and evil people.*

## STUDY 1A, 1B, AND 2: RESULTS

To test our hypotheses, we used AN(C)OVAs (controlling for topic engagement in Study 1a and 1b) and two follow-up comparison contrasts, one testing the difference between the emotion conditions and the non-emotion condition to control for a general effect of emotion communication, and one testing the difference between the anger and disgust conditions to assess the effectiveness of each emotion for a liberal audience. In Study 1b, a third

comparison contrast was added to test for the difference between the longer and shorter non-emotion conditions. For each section, we first provide the main conclusions, then follow with the statistical analyses supporting those findings, and lastly give a full description of each statistical effect. The estimated marginal means for Study 1a and 1b, the means and standard deviations Study 2, and the test statistics for the analyses can be found Tables 2.1 through 2.8[8]. Effect sizes are classified following the rules of thumb from Cohen (1988; small $R_{adj}^2$/$\eta_p^2 = .01$, medium $R_{adj}^2$/$\eta_p^2 = .06$, large $R_{adj}^2$/$\eta_p^2 = .14$).

**Perception of the message**

Overall, we found that the emotion messages were considered more inappropriate and extreme than the non-emotion message, but not extremely so. This establishes the boundary condition as set by the EASI model and implies that emotion messages may be able to affect the psychological processes of emotional contagion and inference, as well as political support.

Statistically, as can be seen in Table 2.2, for appropriateness, there was a marginally significant large anger versus disgust contrast effect in Study 1a, but the other effects were not significant. In Study 1b, there was a significant medium overall effect, a significant small to medium overall emotion contrast effect, and a marginally significant small anger versus disgust contrast effect. In Study 2, the same three effects were all significant, with the effects being large, medium to large, and small to medium, respectively. For extremity, there was a significant large overall effect, a marginally significant large overall emotion contrast effect, and a significant large anger versus disgust contrast effect in Study 1a. All three effects were significant in Study 1b and 2, with the effects being large, large, and small to medium in size, respectively.

As can be seen from the means in Table 2.1, in Study 1a, participants perceived the disgust message as less appropriate as the similarly rated anger and non-emotion ones. The participants of Study 1b and 2 similarly perceived the disgust message as the least appropriate, but further indicated that the anger message was slightly less appropriate than the non-emotion one. In all three studies, the participants considered the anger and disgust messages more extreme than the non-emotion message, and the disgust message was considered most extreme. Therefore, the emotion messages were considered more inappropriate and extreme than the non-emotion message, but not to an extreme extent.

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[8] As there were only two variables for which there were effects between the non-emotion conditions in Study 1b, the test statistics for the contrast testing this are not included in this table, and can be found in the Supplementary Materials Chapter 2, section 6 in Appendix 1.

**Table 2.1**

*(Estimated marginal) means and standard deviations for message perception in Study 1a, 1b, and 2*

| Variable | Study | Anger | Disgust | Non-emotion (long) | Non-emotion (short) |
|---|---|---|---|---|---|
| Message appropriateness | 1a | 5.06 | 3.84 | 4.95 | |
| | 1b[ab] | 5.52 | 5.08 | 5.79 | 5.81 |
| | 2[abc] | 5.08 (1.30) | 4.39 (1.58) | 5.54 (0.97) | |
| Message extremity | 1a[ac] | 3.45 | 5.81 | 3.24 | |
| | 1b[abc] | 3.66 | 4.65 | 2.88 | 2.93 |
| | 2[abc] | 3.84 (1.73) | 4.88 (1.76) | 2.84 (1.59) | |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.2**

*Test statistics for message perception in Study 1a, 1b, and 2*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $\eta_p^2/R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Message appropriateness | 1a | 2.49 | .113 | .23 | -0.98 | .342 | .05 | -2.04 | .057 | .20 |
| | 1b | 4.49 | .005 | .07 | -2.49 | .014 | .03 | -1.95 | .053 | .02 |
| | 2 | 21.50 | < .001 | .12 | -5.30 | < .001 | .08 | -3.77 | < .001 | .04 |
| Message extremity | 1a | 5.71 | .014 | .42 | 1.97 | .066 | .20 | 2.75 | .014 | .32 |
| | 1b | 12.62 | < .001 | .17 | 4.44 | < .001 | .10 | 3.03 | .003 | .05 |
| | 2 | 39.37 | < .001 | .20 | 7.63 | < .001 | .16 | 4.40 | < .001 | .06 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2/3/2 and 88/186/313 in Study 1a/1b/2, respectively

## Support

Overall, we found no evidence that emotion communication positively affected political support, but there was some evidence that disgust communication negatively impacted political support. This is partly in line with our hypotheses that disgust communication does not appeal to liberal audiences, but not in line with the hypothesised beneficial effect of anger for liberals. Statistically, as can be seen from Table 2.4, there were no significant effects in Study 1a and 1b for political support. In Study 2, there was a small significant overall effect, and a small significant anger versus disgust contrast effect. As can be seen from the means in Table 2.3, in this study, participants were *less* likely to support the representative after reading the disgust message than after reading the anger or non-emotion message. This suggests that, for liberals, anger and disgust communication cannot lead to increases in political support for the communicator.

**Table 2.3**

*(Estimated marginal) means and standard deviations for support in Study 1a, 1b, and 2*

| Variable | Study | Anger | Disgust | Non-emotion (long) | Non-emotion (short) |
|---|---|---|---|---|---|
| | 1a | 5.12 | 4.72 | 4.95 | |
| Support for communicator | 1b | 5.35 | 5.40 | 5.50 | 5.42 |
| | 2[ac] | 5.56 (1.15) | 5.02 (1.53) | 5.40 (1.28) | |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.4**

*Test statistics for support in Study 1a, 1b, and 2*

| | | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Variable | Study | $F$ | $p$ | $\eta_p^2/R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Support for communicator | 1a | 0.85 | .429 | .02 | -0.10 | .917 | .00 | -1.30 | .196 | .02 |
| | 1b | 0.13 | .941 | .00 | -0.59 | .555 | .00 | 0.22 | .827 | .00 |
| | 2 | 4.45 | .012 | .02 | -0.69 | .493 | .00 | -2.89 | .004 | .03 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2/3/2 and 88/186/313 in Study 1a/1b/2, respectively

## Emotional contagion

Even though the communication of anger and disgust did not consistently alter the support the communicator received, we believe that the communication of these emotions can still affect how people feel and think after reading the message. Overall, we found, counter to our hypotheses, no consistent evidence in favour of the emotional contagion pathway, with only a few scattered effects across the studies.

### Experienced emotions

Overall, we found no consistent evidence for emotional contagion, which runs counter to our hypotheses. Statistically, as seen from Table 2.6, for experienced anger, there was no significant effect in Study 1a, but a small to medium marginally significant overall effect in Study 1b. None of the other effects in Study 1b were significant. Similarly, there were no significant effects in Study 2. For experienced disgust, there was no significant effect in any of the studies. As can be seen from the means in Table 2.5, in Study 1b, participants felt marginally angrier after reading the anger message compared to after reading other messages. The consistency of the null effects outweighs the single marginally significant overall effect of Study 1b, suggesting that emotional contagion was an unlikely response to emotion communication.

*Moral conviction*

Overall, we found little evidence that moral convictions are affected by emotion communication, counter to our hypotheses. Statistically, as seen from Table 2.6, for moral conviction, there was a small to medium, marginally significant anger versus disgust contrast effect in Study 1a, but there were no other significant effects in this study or the others. As can be seen from the means in Table 2.5, in Study 1a, participants had a slightly stronger moral conviction regarding their opinion after reading the anger message than after reading the disgust or non-emotion message. However, the consistent null effects outweigh this effect, again suggesting that a strengthened moral conviction and motivation to act is an unlikely response to emotion communication among a liberal audience.

**Table 2.5**

*(Estimated marginal) means and standard deviations for the emotional contagion measures in Study 1a, 1b, and 2*

| Variable | Study | Anger | Disgust | Non-emotion (long) | Non-emotion (short) |
|---|---|---|---|---|---|
| | 1a | 4.11 | 3.95 | 3.87 | |
| Anger | 1b | 5.59 | 5.12 | 5.21 | 4.74 |
| | 2 | 4.73 (1.41) | 4.65 (1.58) | 4.68 (1.53) | |
| | 1a | 3.32 | 3.33 | 3.02 | |
| Disgust | 1b | 4.68 | 4.71 | 4.46 | 4.23 |
| | 2 | 4.19 (1.64) | 4.13 (1.74) | 4.22 (1.63) | |
| | 1a | 4.47 | 3.86 | 3.88 | |
| Moral conviction | 1b | 4.38 | 4.48 | 4.43 | 4.39 |
| | 2 | 5.08 (1.28) | 4.93 (1.46) | 4.99 (1.36) | |

*Note.* None of the tested effects were significant

**Table 2.6**

*Test statistics for the emotional contagion measures in Study 1a, 1b, and 2*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $\eta_p^2 / R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Anger | 1a | 0.22 | .801 | .01 | 0.48 | .630 | .00 | -0.46 | .648 | .00 |
| | 1b | 2.54 | .058 | .04 | 0.57 | .568 | .00 | -1.57 | .118 | .01 |
| | 2 | 0.08 | .922 | -.01 | 0.08 | .937 | .00 | -0.40 | .693 | .00 |
| Disgust | 1a | 0.34 | .713 | .01 | 0.83 | .412 | .01 | 0.03 | .980 | .00 |
| | 1b | 0.88 | .451 | .01 | 0.83 | .409 | .00 | 0.09 | .925 | .00 |
| | 2 | 0.08 | .922 | -.01 | -0.29 | .770 | .00 | -0.27 | .786 | .00 |
| Moral conviction | 1a | 1.92 | .153 | .04 | 0.89 | .379 | .01 | -1.75 | .084 | .03 |
| | 1b | 0.06 | .982 | .00 | 0.01 | .989 | .00 | 0.37 | .710 | .00 |
| | 2 | 0.30 | .738 | -.00 | 0.11 | .910 | .00 | -0.73 | .440 | .00 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2/3/2 and 88/186/313 in Study 1a/1b/2, respectively

**Goal inference**

Below we first discuss the findings regarding the avoidance goals, and then regarding the approach goals. Overall, we found that both anger and disgust communication, but especially disgust communication increased the inference of avoidance goals, and some inconsistent evidence suggesting that both messages can decrease the inference of approach goals. This is in line with our hypothesis regarding avoidance goal inferences after reading a disgust message but runs counter to our hypothesis regarding approach goal inferences after reading an anger message.

*Avoidance goals*

Overall, we found, in line with our hypothesis, that a disgust message indeed leads to a greater inference of avoidance goals, although the anger message also promoted these goals to some extent. Statistically, as seen from Table 2.8, for the goal to bring change through radical means, there was a marginally significant small to medium overall emotion contrast effect in Study 1a, but no other effects in this study and in Study 1b were significant. In Study 2, there was a significant large overall effect, and a significant large overall emotion contrast effect, but the contrast effect was not significant. For the goal of wanting to smear the opposition, there was a significant large overall effect, a significant medium overall emotion contrast effect, and a marginally significant small to medium anger versus disgust effect in Study 1a, but none of the effects were significant in Study 1b. Similar to Study 1a, all three effects were significant in Study 2, with the effects being large, large, and small in size, respectively

As can be seen from the means in Table 2.7, in both Study 1a and Study 2, participants were more likely to perceive the representative wanting to achieve change through radical means after reading the anger and disgust messages than after reading the non-emotion message, with the effect being slightly, though not significantly stronger for the disgust message. Similarly, in both the studies, participants were more likely to infer the smearing goal after reading the anger or disgust messages than after reading the non-emotion message. The disgust message led to the strongest increase in this inference. These similar results across both goals show that both anger and disgust communication, but disgust communication more clearly so, leads to inferences of avoidance goals.

*Approach goals*

Overall, we found no evidence in favour of our hypotheses, as both approach goals, and especially the self-enhancement goal, were negatively affected by both the anger and disgust messages. Statistically, as seen from Table 2.8, for the perceived goals to achieve change by influencing the people in charge of the situation, there were no significant effects in Study 1a, but there was a small to medium marginally significant overall effect, and a small to medium significant short versus long non-emotion message contrast effect in Study 1b ($p_{long\ versus\ short}$ = .024, $\eta_p^2$ = .028). The other contrast effects were not significant in this study. There were no significant effects for the perceived goals to achieve change by changing the debate/

via subtle means in Study 1a, 1b, and 2. For the perceived goal of wanting to appear as a moral person, there were no significant effects in Study 1a, but there was a significant medium overall effect, significant small to medium anger versus disgust contrast effect, and a marginally significant small long versus short non-emotion message contrast effect in Study 1b ($p_{\text{long versus short}} = .064$, $\eta_p^2 = .018$). In Study 2, there was a marginally significant small overall effect, and a significant small emotion versus non-emotion contrast effect.

As can be seen from the means in Table 2.7, in Study 1b, participants inferred the goal to want to change the mind of the people in charge of the tuition fee situation to a lesser extent after reading the anger and shorter non-emotion message than after reading the disgust other the longer non-emotion message. However, the null effects in the other studies suggest that, contrary to our hypothesis, the inference of a goal of wanting to achieve change through subtle means is not affected by the communicated emotions in the message. Furthermore, In Study 1b, participants inferred the goal of wanting to appear as moral as possible to a lesser extent after reading the anger and shorter non-emotion message than after reading the disgust or longer non-emotion message. A similar pattern was present in Study 2, but additionally, the goal was least inferred after reading the disgust message. Together, these findings show that anger and disgust communicated negatively affect the inference of approach goals.

**Table 2.7**

*(Estimated marginal) means and standard deviations for the goal inference measures in Study 1a, 1b, and 2*

| Variable | Study | Anger | Disgust | Non-emotion (long) | Non-emotion (short) |
|---|---|---|---|---|---|
| | Goal inferences: avoidance goals | | | | |
| Radical change goal | 1a | 3.63 | 3.93 | 3.28 | |
| | 1b | 5.56 | 5.46 | 5.32 | 5.13 |
| | 2[ab] | 4.71 (1.43) | 4.93 (1.64) | 3.73 (1.51) | |
| Smearing goal | 1a[ab] | 3.13 | 3.86 | 2.57 | |
| | 1b | 4.68 | 4.83 | 4.42 | 4.23 |
| | 2[abc] | 5.29 (1.33) | 5.70 (1.43) | 4.36 (1.53) | |
| | Goal inferences: approach goals | | | | |
| Influence mind goal | 1a | 5.74 | 5.32 | 5.40 | |
| | 1b | 5.64 | 6.01 | 6.11 | 5.56 |
| Influence debate goal | 1a | 5.53 | 5.42 | 5.71 | |
| | 1b | 5.37 | 4.92 | 5.36 | 5.24 |
| Subtle change goal | 2 | 5.58 (1.17) | 5.59 (1.30) | 5.45 (1.08) | |
| Self-enhancing goal | 1a | 5.89 | 5.68 | 5.58 | |
| | 1b[ac] | 5.67 | 6.15 | 6.14 | 5.77 |
| | 2[b] | 5.19 (1.37) | 4.98 (1.50) | 5.40 (1.22) | |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.8**

*Test statistics for the goal inference measures in Study 1a, 1b, and 2*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $\eta_p^2/R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| *Goal inferences: avoidance goals* | | | | | | | | | | |
| Radical change goal | 1a | 2.14 | .124 | .05 | 1.82 | .073 | .04 | 0.99 | .324 | .01 |
| | 1b | 1.62 | .187 | .03 | 1.05 | .297 | .01 | -0.50 | .620 | .00 |
| | 2 | 19.27 | <.001 | .10 | 6.11 | <.001 | .11 | 1.01 | .314 | .00 |
| Smearing goal | 1a | 4.48 | .014 | .09 | 2.44 | .012 | .06 | 1.74 | .086 | .03 |
| | 1b | 1.27 | .285 | .02 | 1.16 | .248 | .01 | 0.48 | .634 | .00 |
| | 2 | 25.00 | <.001 | .13 | 6.73 | <.001 | .13 | 2.06 | .041 | .01 |
| *Goal inferences: approach goals* | | | | | | | | | | |
| Influence mind goal | 1a | 1.18 | .313 | .03 | 0.50 | .620 | .00 | -1.45 | .150 | .02 |
| | 1b | 2.62 | .053 | .04 | -1.40 | .164 | .01 | 1.60 | .112 | .01 |
| Influence debate goal | 1a | 0.50 | .608 | .01 | -0.93 | .355 | .01 | -0.37 | .713 | .00 |
| | 1b | 1.16 | .327 | .02 | -0.89 | .375 | .00 | -1.62 | .107 | .01 |
| Subtle change goal | 2 | 0.49 | .615 | .00 | 0.99 | .325 | .00 | 0.03 | .977 | .00 |
| Self-enhancing goal | 1a | 0.70 | .498 | .02 | 0.87 | .385 | .01 | -0.80 | .426 | .01 |
| | 1b | 3.36 | .020 | .05 | -1.35 | .180 | .01 | 2.53 | .012 | .03 |
| | 2 | 2.61 | .075 | .01 | -1.98 | .049 | .01 | -1.11 | .268 | .00 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2/3/2 and 88/186/313 in Study 1a/1b/2, respectively

2

## STUDY 1A, 1B, AND 2: DISCUSSION

The results of Study 1a, 1b, and 2 (total $N = 599$) generally suggest that adding anger or disgust to the communication of a moralised political message does *not* seem to have an added benefit in increasing political support among liberals, and may in fact even backfire, as was the case in the Study 2 for the disgust message.

Nonetheless, emotion communication did affect how participants experienced the message. Both the emotion messages lead participants to perceive the messages as more extreme and inappropriate than the non-emotion message, although when looking at the absolute values of the ratings, the emotion messages still scored ratings of appropriateness and extremity just above the midpoints of their respective scales. This can indicate that the emotion messages such as the one used in these studies do not fall too far out of the range of acceptable communication for political actors. Indeed, this may have weakened any potential negative effects of inappropriate communication as the negative effect on support for the disgust communicator was only present in one of the studies, and was small in that case.

In terms of how the emotion communication impacted the emotional contagion or goal inference, there was consistent evidence that goal inference, specifically the inference of avoidance goals, was the most common reaction. These types of inferences are in line with our predictions of what should occur as a result of disgust communication, but, counter to our expectations, they also occurred as a result of anger communication. There were only a few, counter to our hypothesis, negative effects of anger (and disgust) communication on the approach goals. Overall, the results regarding these inferences could help explain the small negative effect on support.

Concluding, we found no support for the communication of anger and disgust having a positive effect on garnering support among liberal audiences, and even found some evidence that its use can backfire on the communicator. However, it can fundamentally change how individuals perceive the message and goals of the communicator, with the message being considered slightly more, but likely not overly so, inappropriate, and the communicator as more likely to want to smear their opponents and completely remove the current system. In two additional studies, we investigate whether the same pattern of results holds true for a conservative audience.

## STUDY 3A AND 3B: METHODS

### Participants and Design
Study 3a and 3b used a similar between-subjects three condition design (Anger vs. Disgust vs. Non-emotion message) with a similar questionnaire as used in Study 2. For Study 3a, 151 US citizens who self-identified as conservative, were under the age of 35, and had been to or completed college were collected via Amazon's Mechanical Turk and received a small monetary reward for participating. For Study 3b, 300 US college students who self-identified as moderate or conservative were collected via Prolific Academic and received a small

monetary reward for participating. Participants that did not finish the survey, or indicated that their data should not be used, were removed for the analyses. This was the case for 19 and seven participants in Study 3a, and zero and three participants in Study 3b, respectively.

Based on the same quality checks as Study 2 (24 seconds instead of 20 was taken as the time threshold for the emotion message based on visual inspection of the completion times), the sample was further reduced. Following these guidelines, 84 and 224 participants remained in Study 3a and 3b, respectively (3a: $N_{anger} = 28$, $N_{disgust} = 27$, $N_{Non\text{-}emotion} = 29$; 3b: $N_{anger} = 76$, $N_{disgust} = 68$, $N_{Non\text{-}emotion} = 80$). In both studies[9], the samples scored above the midpoint of the seven-point political orientation scale (3a: $M = 5.46$; 3b: $M = 4.00$). The participants who read the anger message indicated a marginally more conservative orientation than those who read the disgust message in Study 3b ($p_{anger\ versus\ disgust} = .059$). However, after removal of a potential outlier, this effect disappeared, and the results of the analyses below remained the same. Therefore, although we ultimately kept the outlier in the dataset, we did not control for this disparity. Both samples were relatively engaged with the topic (3a: $M = 3.85$; 3b: $M = 3.24$), scoring just above and just below the midpoints of the scale. Information regarding the samples' gender, age, and nationality distribution can be found in the Supplementary Materials Chapter 2, section 1 in Appendix 1.

**Procedure**

For Study 3a, the data was gathered in March to June 2019. For Study 3b, the data was gathered in January 2020. After giving consent, participants gave demographic information, and read a short text on speech restriction and safes-space policies on US college campuses, and how this has led to opposition by Turning Point USA (TPUSA), a conservative action group who believes these policies restrict conservative voices on campus. Participants were then asked to indicate how engaged they were with the topic. After responding to these items, participants were randomly assigned to one of the three conditions, where they were told that they would read a statement by a TPUSA representative. After reading the message, participants completed a questionnaire containing key measures of political support, experience of anger and disgust, moral conviction regarding their position on the speech restriction issue, approach and avoidance goals, and perception of the message as a whole. We also included exploratory measures but did not further analyse them (see Supplementary Materials Chapter 2, section 2 in Appendix 1 for an overview). Participants then completed several quality checks. Finishing the questionnaire, participants were debriefed and thanked for their participation.

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[9] Participants indicated their political orientation by describing themselves as 1 (Very liberal) to 7 (very conservative) using the following three items after the stem *regarding economic issues I would describe myself, regarding social issues I would describe myself.* Furthermore, they placed themselves on a 7-point scale from 1 (Strong Democrat) to 7 (Strong Republican) (3a: $\alpha = .83$; 3b: $\alpha = .79$). They indicated their engagement with topic using the same three items as in Study 1a, 1b, and 2, adapted to the topic of speech restriction (3a: $\alpha = .93$; 3b: $\alpha = .90$)**.** Participants indicated their attitude towards the free speech restriction by choosing of 3 options: 1 (no restriction at all), 2 (only restrict explicit calls to violence), 3 (restrict all potentially offensive speech).

**Manipulation and Measures**

Participants answered by indicating their agreement on a Likert-type scale ranging from 1 (Not at all) to 7 (Very much), and mean scores were calculated. The key dependent variables are described here. The full manipulation texts and descriptions of the Instructional Manipulation Check can be found in the Supplementary Materials Chapter 2, sections 3 and 4 in Appendix 1.

*Manipulation*

In all conditions, the message was presented as an image that looked like it could have been posted on the website of TPUSA. The messages were highly similar across the two studies, with the message in Study 3b being slightly edited for readability purposes. In the emotion conditions, participants read messages consisting of three (Study 3a) or four (Study 3b) paragraphs, whereas participants in the non-emotion condition only read a less explicit emotion version of the first and last paragraphs.

The first paragraph posited how the representative was outraged or discussed by the speech restriction measures, believing that a Leftist Academic Elite was smothering conservative voices intentionally and that this was immoral. The following two/three paragraphs further elaborated this point, with multiple references to the emotional state of the representative (e.g., infuriated, angry for anger; sickened, disgusted for disgust) and characterising it as an attack on independent thought in the anger message, and as twisted, corrupting policy in the disgust message. The last paragraph contained a call to support the representative into becoming part of the TPUSA leadership.

*Manipulation checks*

Participants indicated whether the representative was explicitly *angry, disgusted* or *did not mention their emotional state*. As quality checks, they then indicated whether they had answered the questionnaire seriously, whether the message was focused on PR or on morality (only Study 3a), and completed an instructional manipulation check (Oppenheimer et al., 2009). Similar to Study 1a, 1b, and 2, the manipulation and quality check using recall of textual elements was not used for sample reduction. Instead, participants also rated the emotional state of the representative using two single-item measures: *The representative… is angry* and *is disgusted*

*Perception of the message*

Participants rated their perception of the message using five of the six items used in the previous studies, dropping the authenticity measure. Factor analysis showed that only in Study 3a, extremity needed to be considered separate to the appropriateness scale. Thus, in Study 3a, two scores were used to assess the perception of the message, namely appropriateness (four items: α = .97), and extremity, and in Study 3b, after recoding the extremity item, one score was used: appropriateness (five items: α = .94).

*Support for the representative*

Participants indicated their support for the representative using six items: the three items used in the previous studies, and three more behavioural items that loaded onto the same factor: *I would pledge money to support this representative, I would share information with other students on behalf of this representative, I would vote for this representative to become part of the leadership of TPUSA* (3a: α = .94; 3b: α = .95).

*Emotional contagion*

**Experienced anger and disgust.** Participants indicated how much anger and disgust they felt with regards to the issue using two items per emotion, similar to the previous studies (Anger and outrage, 3a: $r = .91$; 3b: $r = .85$; disgust and repulsion, 3a: $r = .90$; 3b: $r = .93$; all $p < .001$).

**Moral conviction regarding their attitude towards speech restriction.** Participants first indicated their attitude towards tuition fees on a scale ranging from 1 (There should be no rules regarding what can and cannot be said on campus) to 3 (Any speech that can be deemed offensive needs to be restricted). As indicated, only those scoring a 1 or 2 (Only extreme speech needs to be restricted) were included in the analysis. Participants then rated their moral conviction regarding this attitude using the four items measure of moral conviction (Skitka & Morgan, 2014), which replaced the last two items that assessed time and location universality used in the previous studies with the following two items: *My opinion about the issue of speech restriction… is based on a moral principle, is based on a moral stance* (3a: α = .96; 3b: α = .93).

*Goal inference*

Participants indicated their perception of the two approach goals (bring about change within the system, appear as a moral person) with two single-item measures: *I believe that the representative wants… to change the policy decision-making process by influencing (talking/ debating with) those in charge of it, to portray themselves as a moral and good person*. Similarly, their perception of the two avoidance goals (bring radical change to the system, smearing opponents) were also measured using two single-item measures: *I believe that the representative wants… to get rid of the current policy makers and their process, and to install a brand new system of policies and policy decision making processes; to portray those in charge of the policy decision making process as immoral and evil people.*

## STUDY 3A AND 3B: RESULTS

Similar to the previous studies, we used ANOVAs and two follow-up comparison contrasts to test the effects of the emotion messages on a conservative audience[10]. For each section, we first provide the main conclusions, then follow with the statistical analyses supporting those findings, and lastly give a full description of each statistical effect. The means, standard deviations, and test statistics for the discussed variables can be found in Tables 2.9 through 2.18. Effect sizes are classified following the rules of thumb from Cohen (1988; small $R_{adj}^2$/ $\eta_p^2 = .01$, medium $R_{adj}^2/\eta_p^2 = .06$, large $R_{adj}^2/\eta_p^2 = .14$).

### Manipulation checks

Overall, we found that reading either of the emotion messages increased the perception of both anger and disgust, suggesting we were only semi-successful in communicating each emotion distinctly, and cannot be fully confident in ascribing the effects of each emotion message to the communication of the specific emotion in question. Statistically, as seen in Table 2.10, for the perception of anger displayed by the representative, the overall effect, and the overall emotion contrast effect were significant in both Study 3a and 3b, both being large in size in Study 3a, and medium to large in Study 3b. A similar pattern in both studies, although all effects being large in size, was found for the perception of disgust. The anger versus disgust contrast effect was not significant in both studies for both perceived anger and disgust.

As can be seen from the means in Table 2.9, in both studies, participants perceived more anger *and* disgust after reading *either* of the two emotion messages, and the trends showing a match between the perceived emotion and the communicated emotion in the message (i.e., seeing more anger than disgust after reading the anger message and vice versa for the disgust message) were not significant. Overall then, both emotion messages increased the perception of both emotions.

**Table 2.9**
*Means and standard deviations for the manipulation checks in Study 3a and 3b*

| Variable | Study | Anger | Disgust | Non-emotion |
|---|---|---|---|---|
| Perceived anger | 3a[ab] | 6.36 (1.03) | 6.30 (0.99) | 4.86 (1.71) |
| | 3b[ab] | 6.32 (0.97) | 6.16 (1.39) | 5.49 (1.32) |
| Perceived disgust | 3a[ab] | 5.96 (1.07) | 6.48 (0.94) | 4.93 (1.51) |
| | 3b[ab] | 5.93 (1.15) | 6.25 (1.20) | 5.12 (1.41) |

[a] Significant overall effect: all means were not equal
[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean
[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

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[10] Similar to before, one case in Study 3b with three or more outliers was marked for removal but was ultimately retained as removal did not substantially change the results of the analyses.

**Table 2.10**

*Test statistics for the manipulation checks in Study 3a and 3b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Perceived anger | 3a | 12.20 | < .001 | .21 | 4.93 | < .001 | .23 | -0.17 | .862 | .00 |
| | 3b | 9.89 | < .001 | .07 | 4.36 | < .001 | .08 | -0.75 | .456 | .00 |
| Perceived disgust | 3a | 12.10 | < .001 | .21 | 4.67 | < .001 | .21 | 1.59 | .115 | .03 |
| | 3b | 15.94 | < .001 | .12 | 5.49 | < .001 | .12 | 1.50 | .135 | .01 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 81/221 in Study 3a/3b, respectively.

## Perception of the message

Overall, we found that both emotion messages increased the perception of the message as inappropriate and extreme, and to such an extent that the boundary condition for effective emotion communication as outlined in the EASI model may not hold. As such, anger and, especially, disgust communicators may suffer from general negative reputation effects when talking to a conservative audience. These findings are similar to, although slightly more extreme than, the findings of Studies 1a, 1b and 2.

Statistically, as seen in Table 2.12, for appropriateness, there was a significant large overall, medium to large overall emotion contrast, and small to medium anger versus disgust contrast effect in Study 3a. In Study 3b, all effects were significant, with the effects being large, large, and medium to large in size, respectively. Additionally, for message extremity, there was a significant large overall effect, large overall emotion contrast, and medium to large anger versus disgust contrast effect in Study 3a.

As can be seen from the means in Table 2.11, in the studies, participants perceived the anger and disgust, but the disgust message more so, as less appropriate and more extreme. Overall, these results show large negative effects on message perception for both emotion messages.

**Table 2.11**

*Means and standard deviations for message perception in Study 3a and 3b*

| Variable | Study | Anger | Disgust | Non-emotion |
|---|---|---|---|---|
| Message appropriateness | 3a[abc] | 5.21 (1.70) | 4.37 (1.55) | 5.69 (1.05) |
| | 3b[abc] | 3.78 (1.54) | 3.00 (1.53) | 5.45 (1.11) |
| Message extremity | 3a[abc] | 3.79 (1.83) | 5.04 (1.58) | 2.55 (1.53) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.12**

*Test statistics for message perception in Study 3a and 3b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Message appropriateness | 3a | 5.87 | .004 | .11 | -2.69 | .009 | .08 | -2.15 | .034 | .05 |
| | 3b | 60.31 | < .001 | .35 | -10.57 | < .001 | .34 | -3.33 | .001 | .05 |
| Message extremity | 3a | 15.84 | < .001 | .26 | 4.91 | < .001 | .23 | 2.81 | .006 | .09 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 81/221 in Study 3a/3b, respectively.

## Support

Overall, we found that reading either the anger or disgust message, but especially so reading the disgust message, negatively affected support for the communicator, similar to the results of Study 2. The negative effect of the disgust message is in line with the hypotheses of the goal inference pathway, but not with those of the emotional contagion pathway. However, the slight negative effect for anger communication does not fit our expectation regarding the goal inference pathway.

Statistically, as seen in Table 2.14, for support, there was a marginally significant small to medium overall effect, and a marginally significant small to medium anger versus disgust contrast effect in Study 3a. In Study 3b, there was a significant large overall effect, large overall emotion contrast effect, and small to medium anger versus disgust contrast effect.

As can be seen from the means in Table 2.13, the participants of both studies, but those in Study 3b in particular, were *less* likely to support the representative after reading the emotion messages, and this negative effect was stronger for the disgust message than for the anger message.

**Table 2.13**

*Means and standard deviations for support in Study 3a and 3b*

| Variable | Study | Anger | Disgust | Non-emotion |
|---|---|---|---|---|
| Support for communicator | 3a | 4.90 (1.55) | 4.17 (1.64) | 5.06 (1.19) |
| | 3b[abc] | 3.44 (1.62) | 2.63 (1.48) | 4.11 (1.55) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.14**

*Test statistics for support in Study 3a and 3b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Support for | 3a | 2.92 | .060 | .04 | -1.55 | .125 | .03 | -1.87 | .065 | .04 |
| communicator | 3b | 16.57 | < .001 | .12 | -4.95 | < .001 | .10 | -3.10 | .002 | .04 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 81/221 in Study 3a/3b, respectively.

**Emotional contagion**

Overall, we found no strong, consistent evidence for the emotional contagion pathway, with no consistent significant effects across the studies. This runs counter to our hypotheses but is in line with results of the previous studies.

*Experienced emotions*

Overall, we found no strong evidence for emotional contagion which runs counter to our hypothesis. Statistically, as seen in Table 2.16, for experienced anger, there was no significant effect in Study 3a, and only a marginally significant small overall emotion contrast effect in Study 3b ($p$ = .083). For both studies, none of the effects were significant with regards to experienced disgust. As can be seen from the means in Table 2.15, in Study 3a, participants felt less anger after reading the emotion messages than after reading the non-emotion message, but the small effect size and the null effects in the other study and for disgust generally suggest that the emotional state of participants remains unchanged after exposure to an emotion message.

*Moral conviction*

Overall, we again found no strong evidence in favour of emotional contagion, and also find that conservatives are less morally convicted after reading a disgust message, which runs counter to our hypothesis. Statistically, as seen in Table 2.16, for moral conviction, there were no significant effects in Study 3a, but there was a marginally significant small overall, and significant small to medium anger versus disgust contrast effect in Study 3b. The overall emotion contrast effect was not significant. As can be seen from the means in Table 2.15, in Study 3b, participants felt less morally convicted regarding their opinion after reading the disgust message, and reading the anger message did not significantly affect their conviction compared to reading the non-emotion message, suggesting that moral convictions are not easily strengthened by emotion communication.

**Table 2.15**

*Means and standard deviations for the emotional contagion measures in Study 3a and 3b*

| Variable | Study | Anger | Disgust | Non-emotion |
|---|---|---|---|---|
| Experienced anger | 3a | 5.20 (1.54) | 4.76 (1.71) | 4.93 (1.79) |
| | 3b | 3.91 (1.67) | 3.63 (1.68) | 4.17 (1.65) |
| Experienced disgust | 3a | 5.09 (1.43) | 4.50 (1.73) | 4.66 (1.88) |
| | 3b | 3.84 (1.98) | 3.46 (1.63) | 3.66 (1.93) |
| Moral conviction | 3a | 5.49 (1.29) | 5.83 (1.32) | 5.22 (1.45) |
| | 3b[c] | 5.35 (1.29) | 4.79 (1.46) | 5.14 (1.48) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.16**

*Test statistics for the emotional contagion measures in Study 3a and 3b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Experienced anger | 3a | 0.47 | .625 | -.01 | 0.12 | .904 | .00 | -0.96 | .338 | .01 |
| | 3b | 1.96 | .144 | .01 | -1.74 | .083 | .01 | -0.99 | .322 | .00 |
| Experienced disgust | 3a | 0.90 | .410 | -.00 | 0.36 | .721 | .00 | -1.29 | .201 | .02 |
| | 3b | 0.74 | .479 | -.00 | -0.04 | .969 | .00 | -1.22 | .225 | .01 |
| Moral conviction | 3a | 1.41 | .250 | .01 | 1.41 | .164 | .02 | 0.93 | .353 | .01 |
| | 3b | 2.89 | .058 | .02 | -0.37 | .711 | .00 | -2.39 | .018 | .03 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 81/221 in Study 3a/3b, respectively.

## Goal inference

Overall, we found in both studies, similar to the previous studies, that both messages, but the disgust message most so, increased the inference of avoidance goals, and decreased the inference of approach goals. Like before, this is in line with our hypothesis regarding disgust communication but runs counter to our hypothesis of anger communication.

### *Avoidance goals*

Overall, we found support for our hypothesis regarding the inference of avoidance goals, as reading either the anger or the disgust message increases the inference of avoidance goals, but reading the disgust message has the greatest effect. Statistically, as seen in Table 2.18, for the perceived goal to bring change through radical means, there was a significant medium overall effect, and a significant medium to large overall emotion contrast effect in Study 3a, but the anger versus disgust contrast effect was not significant, Similarly, in Study 3b, all three effects were significant, with the effects being medium to large, medium, and small to medium in size, respectively. For the goal of wanting to smear the opposition, there was a significant large overall effect, medium to large overall emotion contrast, and medium to

large anger versus disgust contrast effect in Study 3a. In Study 3b, all effects were also significant, with the effects being large, large, and small to medium in size, respectively.

As can be seen from the means in Table 2.17, participants in both studies inferred the radical means goal more often after reading the emotion messages than after reading the non-emotion message, but in Study 3b, this goal was also inferred more by the participants who read the disgust message than by those who read the anger one. Furthermore, in Study 3a, participants inferred the smearing goal after reading the anger message is only slightly more than after reading the non-emotion message, but they inferred it the most after reading the disgust message. Similarly, Study 3b further shows that reading the anger message also increased the inference for the smearing goal compared to reading the non-emotion message, but that reading the disgust message again led to the largest increase in the inference of this goal. Overall then, it appears that it is the disgust message which leads to strongest inferences of avoidance goals. These results show support for our hypothesis regarding the goal inference pathway, with disgust communication increasing the inference of avoidance goals.

### Approach goals

Overall, we found no evidence that anger messages can increase the inference of approach goals, and even find that reading either the anger or the disgust message leads to a decrease in approach goal inference, counter to our hypothesis. Statistically, as seen in Table 2.18, for the perceived goal to enact change via subtle means, there were no significant effects in Study 3a. In Study 3b, there was a significant small to medium overall effect, and a significant small to medium overall emotion contrast effect in Study 3b, but the other contrast effect was not significant. For the perceived goal of wanting to appear as a moral person, there was a marginally significant overall small to medium effect, and a significant small to medium overall emotion contrast effect in Study 3a, but the anger versus disgust contrast effect was not significant. None of the effects were significant in Study 3b.

As can be seen from the means in Table 2.17, in Study 3b, the participants were less likely to infer the subtle means goal after reading either the anger or disgust message compared to after reading the non-emotion message. Furthermore, in Study 3a, the participants were less likely to infer the self-enhancement goal after reading either of the emotion messages compared to after reading the non-emotion message with the trend indicating that this negative effect is especially present for the disgust message. Overall, these results suggest that both anger and disgust communication may decrease inferences of approach goals.

**Table 2.17**

*Means and standard deviations for the goal inference measures in Study 3a and 3b*

| Variable | Study | Anger | Disgust | Non-emotion |
|---|---|---|---|---|
| | Goal inferences: avoidance goals | | | |
| Radical change goal | 3a[ab] | 5.50 (1.17) | 5.48 (1.22) | 4.69 (1.31) |
| | 3b[abc] | 4.83 (1.42) | 5.41 (1.54) | 4.20 (1.77) |
| Smearing goal | 3a[abc] | 4.86 (1.43) | 5.78 (0.97) | 4.45 (1.62) |
| | 3b[abc] | 5.66 (1.35) | 6.34 (0.97) | 4.64 (1.73) |
| | Goal inferences: approach goals | | | |
| Subtle change goal | 3a | 5.79 (0.96) | 5.59 (0.97) | 5.52 (0.99) |
| | 3b[ab] | 4.92 (1.78) | 4.72 (1.74) | 5.55 (1.48) |
| Self-enhancing goal | 3a[b] | 5.14 (1.41) | 4.74 (1.56) | 5.55 (0.91) |
| | 3b | 5.08 (1.58) | 5.22 (1.61) | 5.26 (1.56) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined anger and disgust condition mean differed from the non-emotion condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

**Table 2.18**

*Test statistics for the goal inference measures in Study 3a and 3b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Anger vs disgust | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| | | Goal inferences: avoidance goals | | | | | | | | |
| Radical change goal | 3a | 3.99 | .022 | .07 | 2.82 | .006 | .09 | -0.06 | .956 | .00 |
| | 3b | 10.74 | < .001 | .08 | 4.15 | < .001 | .07 | 2.20 | .029 | .02 |
| Smearing goal | 3a | 6.80 | .002 | .12 | 2.75 | .007 | .09 | 2.48 | .015 | .07 |
| | 3b | 27.62 | < .001 | .19 | 6.94 | < .001 | .18 | 2.90 | .004 | .04 |
| | | Goal inferences: approach goals | | | | | | | | |
| Subtle change goal | 3a | 0.58 | .565 | -.01 | 0.77 | .443 | .01 | -0.74 | .463 | .01 |
| | 3b | 5.10 | .007 | .04 | -3.13 | .002 | .04 | -0.72 | .472 | .00 |
| Self-enhancing goal | 3a | 2.67 | .076 | .04 | -2.02 | .046 | .05 | -1.14 | .260 | .02 |
| | 3b | 0.28 | .753 | -.01 | -0.51 | .610 | .00 | 0.54 | .592 | .00 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 81/221 in Study 3a/3b, respectively.

## STUDY 3A AND 3B: DISCUSSION

The results of Study 3a and 3b (total $N = 308$) clearly suggest that the addition of anger, and especially disgust, *harms*, rather than helps, a communicator's chances of garnering political support for their cause from a conservative audience.

The harmful effect may be partially explained by the drop in the perceived appropriateness for the emotion messages: both the appropriateness and extremity ratings deviated from the midpoint of the respective scales for the emotion messages, especially so

for the disgust message. However, there was a similar, though slightly weaker, negative effect of emotion communication on support in the liberal samples. Therefore, whilst the more negative evaluation of the message in the conservative samples may have led to a sharper decrease in support for the communicator compared to the liberal samples, it cannot fully explain the backfiring effect seen in both these samples.

In the studies, emotion communication strongly triggered goal inference of avoidance goals for both the anger and disgust message, with the effects being stronger for the disgust message. In addition to the negative evaluation, these inferences may partially explain the negative effect of emotion communication on support. Additionally, both anger and disgust communication slightly decreased the inference of approach goals. Lastly, there was no evidence for the occurrence of emotional contagion. These findings provide mixed evidence for our hypotheses, but are consistent with our findings of how liberal individuals respond to anger and disgust communication, with the only difference being that the effects were slightly stronger for conservative individuals.

The manipulation checks of the current studies further provide an important insight into how anger and disgust messages are perceived by the public. As noted, across the liberal and conservative studies, both the anger and disgust messages behaved in similar fashion, with the effects being stronger for disgust. We had anticipated different, more positive effects for anger, but the manipulation checks of the current studies show us that both anger and disgust messages increased the perception of both emotions in the representative compared to the non-emotion message. Overall then, these studies show that anger and disgust communication may be viewed as rather similar in the context of emotion communication and elicit similar psychological effects in people on both sides of the political spectrum.

## GENERAL DISCUSSION

The aim of the research in this chapter was to test whether adding anger or disgust to a moralised political message can increase political support among liberal and conservative students. Furthermore, we applied the emotions-as-social-information (EASI) model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010) to examine how processes of emotional contagion (Hatfield et al., 1993) and goal inference (Fridlund, 1994; Van Kleef, 2009) may explain any changes in support for an emotional communicator.

Across five studies (total $N = 907$), anger and disgust messages were perceived as similar, did not increase support for the communicator, and in some studies, even backfired compared to a non-emotion message. Furthermore, whilst they did not trigger changes in the emotional state of observers via emotional contagion processes, both communicated emotions stimulated inferences about goals the communicator may have, particularly avoidance goals. Generally, these emotion messages were seen as less appropriate and more extreme than non-emotion messages, though liberal audiences did not evaluate them as too inappropriate or extreme, whereas conservative audiences judged them harsher. Related to this, the only difference found between liberal and conservative audiences was that the effects were more

pronounced in the conservative samples. Specifically, we found that adding anger and disgust had a greater negative impact on them than on the liberal samples in terms of perceived appropriateness, extremity, and support for the communicator. Overall, we found no supporting evidence for our hypotheses regarding emotional contagion, and mixed evidence for our hypotheses regarding goal inference. We first discuss how we interpret these findings, and then what the implications of our findings are for theory and research.

**Is there added value to adding anger and disgust to political moralised messages?**
Our findings make clear that the added value of adding anger or disgust to moralised political messages is probably rather low. Individuals across the political spectrum made inferences regarding avoidance goals in response to anger and disgust messages but these messages did not increase support, and even backfired in some cases. In accordance with our hypotheses, the inferences of avoidance goals can help explain these backfiring effects (Banda & Windett, 2016; Carraro et al., 2010; Catellani & Bertolotti, 2014), but this negative link between avoidance goals inference and support may be weaker than initially hypothesised, as indicated by the general null effects of the message on support in spite of consistent avoidance goal inferences. Indeed, the greater presence of backfiring effects in the conservative audience studies 3a and 3b suggest that such backfiring is more likely when political messages are considered inappropriate and extreme, which was more so the case in those studies. This is in line with research on the EASI model, which found that perceived inappropriateness of emotion communication can lead to negative affective reactions which harm the reputation of the communicator (Helweg-Larsen & LoMonaco, 2008; Stamkou et al., 2019; Van Kleef & Côté, 2007). Therefore, the violation of people's expectation regarding the use of emotions in communication may explain the found negative effects on political support, for liberals (Study 2) and conservatives (both studies) alike.

When considering how people psychologically engaged with the emotion messages, both the EASI model (Van Kleef, 2017) and other models of social cognition and persuasion such as the elaboration likelihood model (Petty & Cacioppo, 1986; Wagner & Petty, 2011) can provide insights as to why goal inference was preferred over emotional contagion. One reason for the more cognitive response to emotion communication as noted in the elaboration likelihood model is that the message dealt with a self-relevant topic. Such a topic often induces greater central processing of a message, which was the case in our studies. Furthermore, as participants were asked to support the communicator, they had a personal stake in the message, further increasing the perceived self-relevance. Alternatively, according to the EASI model, when giving enough time to process information, more cognitive approaches to emotion communication are likely. As participants could finish the questionnaire in their own time, this room to process the information can be assumed. Lastly, the EASI model researchers, as well as others (Bartholow et al., 2001; Jerónimo et al., 2017) have found that violations of expectations, and the perceived inappropriateness of emotion communication (as was the case in our studies) can lead to greater cognitive processing.

These factors all combine to potentially explain why goal inference was a more likely psychological response than emotional contagion in the current studies.

Lastly, we had expected that communicating anger or disgust would have different consequences, especially in the case that goal inference would occur, with anger leading to more approach goal inferences, and disgust leading to more avoidance goal inferences. However, we found that *both* anger and disgust led to negative avoidance goal inferences. This suggests that the communication of anger in political or moral violations contexts could lead to the attribution of other, more negative emotions, ultimately leading to similar effects as disgust communication (De Vos et al., 2013; see also Bilewicz et al., 2017; Miceli & Castelfranchi, 2018).

**Theoretical and practical implications**

Our findings have a number of practical and theoretical implications. First, our research shows that the explicit communication of anger and disgust in political messaging may sometimes *harm* support for the communicator, which runs counter to popular notions that *pathos* has superseded *logos* (Alcorn, 2014; Davies, 2016; Dunt, 2016). Furthermore, the finding that inference processes took place rather than emotional contagion suggest that a cognitive analysis of candidate emotional behaviour is very much present in people's reactions to emotional rhetoric, which further argues against the presumed power of *pathos* over *logos*.

Second, our research shows that the strong link between emotion and morality (e.g., Haidt, 2001; 2007; 2012; Wisneski & Skitka, 2017) has its limits within the domain of political communication, as emotion communication can fail to strengthen the powerful persuasive force of moral argumentation within political contexts (Feinberg & Willer, 2013; 2015; 2019). When communicating about morality in contexts where important decisions are to be made (i.e., affording a communicator greater power), a show of emotion may not be blindly accepted as an indicator of a communicator's passion for the issue at hand, but rather as a signal regarding how the communicator wants to tackle the moral problem at hand, which, when judged as inappropriate, can backfire on them.

Nevertheless, emotion may still have a place in moral political communication. Indeed, experienced emotion may inform morality, evident from the participants in our studies who both experienced moderate levels of anger and disgust, and were moderately convicted regarding their attitude, consistent with the intuitive primacy principle. Furthermore, previous research has shown that the experience of certain emotions may be an important factor in determining how individuals engage with political information (i.e., Civettini & Redlawsk, 2009; Marcus et al., 2000; 2011; 2019). Therefore, effective persuasive communication regarding emotions would best be served trying to *elicit* emotions in others, rather than pointing out the communicator's own emotion state. Indeed, some research has shown that moral language is effective as it targets the emotions of voters (Lipsitz, 2017).

Third, our studies show that fine-grained distinctions made in psychological literature between anger and disgust, both generally (e.g., Kuppens et al., 2007; Roseman, 2001; Van Mechelen & Hennes, 2009), and with regards to morality (e.g., Hutcherson & Gross, 2011; Kayyal et al., 2015; Royzman et al., 2014; ; Rozin et al., 1999), may not hold when examining the communicative functions of these emotions in more applied, (moral) political contexts. Indeed, whilst the communication of "pure" anger may increase inferences regarding positive goals, as it can signal a need for reparations (Carver & Harmon-Jones, 2009; De Vos et al., 2013; 2018; Pennekamp et al., 2007), in situations where decisions regarding power transferral and (resulting) imbalances need to be made, a lack of further clarifying information may lead to inference of more negative goals. Indeed, in such situations, people may recognise the approach aspect of anger as a more destructive force driving aggression (e.g., Berkowitz, 1989; Rubio-Garay et al., 2016). If anger is to be expressed, explicit communication of one's intentions may help offset such a misinterpretation of anger, mitigating inferences of more negative avoidance goals, and instead increasing the inference of approach goals.

Lastly, our research contributes to the mixed findings regarding differences between liberals and conservatives (e.g., Graham et al., 2009; Feinberg & Willer, 2013; 2015; 2019; Iyer et al., 2012; Nelson & Garst, 2005) by highlighting how, generally, both ends of the political spectrum react similarly to anger and disgust communication. Indeed, our research falls in line with work by Frimer and colleagues (2013), showing that when considering whom to support, liberals and conservatives do not differ greatly in regards to what moral values they use to make their decision. In parallel, we found that both liberals and conservatives seem to infer the same negative goals from anger and disgust, and both disapprove of emotion communication. In this respect, the processes relevant to the communication of emotion may not be so different among liberals and conservatives.

**Future directions**
The current research raises a number of questions to be explored in the future. First, future research can address whether people generally disapprove of negative emotion communication. One context where emotions could be considered appropriate is when a communicator is talking to individuals who already have a strong moral conviction about a specific topic, and where these individuals can recognise their own emotional state in that of the communicator, and perceive their intentions to align. Further studies could conduct similar studies further into an election cycle, where the audience has had time to develop strong convictions and emotions regarding specific topics, to test whether such situations indeed increase the perceived appropriateness of communicating anger and disgust. Indeed, Chapter 4 of this thesis will take such an approach, studying reactions to emotion communication shortly before participants were allowed to vote.

Second, future research could examine whether emotion communication always increases inference strategies in the audience. Research into emotional contagion has shown that

factors such as mimicry (Hatfield et al., 1992; Lischetzke et al., 2020) a shared in-group (Van der Schalk et al., 2011), and shared behaviour (Parkinson, 2019) can facilitate the occurrence of emotional contagion. These features may be more common in other political contexts, such as during a campaign rally. Future research could examine whether the communication of anger and disgust in such political contexts would elicit similar goal inferences as the current studies, or whether emotional contagion would occur there. Such studies would contribute to a more comprehensive account of reactions to emotion communication in moralised political contexts.

Third, future research could focus on the communication of different emotions, notably positive ones, and whether they are more successful in garnering support. Interesting emotions to examine include hope, which has already been shown to be in important in understanding collective action and conflict resolution (Cohen-Chen et al., 2015; Cohen-Chen & Van Zomeren, 2018), and nostalgia, which has been shown to be a motivating force that evokes inspiration and creativity (Sedikides et al., 2017; Sedikides & Wildschut 2016). Furthermore, these emotions may differ in their effectiveness depending on the political orientation of the audience, as both hope and nostalgia, and liberals and conservatives differ in temporal orientation (Robinson et al., 2015). As such, liberals may react more positively towards hope communication, inferring more positive goals, and supporting a hopeful communicator more, whereas conservatives may favour the nostalgic communicator more. In Chapter 3 of this thesis, we will examine the effects of hope and nostalgia messages on support.

**Strengths and limitations**

Our systematic experimental research designs have strengths as well as limitations. First, the set-up for our study was rather conservative, with the explicit communication of anger and disgust being solely text-based. We noted that such a situation may lead to more cognitive reflection, whereas other contexts (such as campaign rallies) may lead to more affective reactions. As such, our findings of our studies do not represent the full account of how individuals react to emotional political communication. Nonetheless, we believe the design we employed in these studies reflects important real-life scenarios. Many individuals only receive news regarding politics and political figures through written mediums (i.e., social media, newspapers), where analysis of political actors' behaviour will or already has occurred (experts opining over their behaviour). Furthermore, many political actors convey their reactions to developing situations in written form on media platforms or campaign websites, including emotional reactions to impactful events. As such, we believe that, whilst not providing a fully comprehensive account of individuals' reactions to emotional contagion, our research designs are likely to be reflective of situations which may even be the most impactful in shaping public opinion regarding political actors.

Second, in our manipulation of anger and disgust, we have broadly operationalised the emotions, focusing on relational themes, cognitive antecedents, value judgments and general

intentions in the explicit communication of these emotions. As such, some may argue that it is not clear what aspect of anger and disgust (i.e., arousal level, valence etc.) drives any negative effects of the communication of these emotions. Such a fine-grained analysis could become part of future research. However, we believe that we more closely approximate real-life situations where emotions may be communicated by utilising this broader operationalisation of anger and disgust. Indeed, it is unlikely that only a single aspect of anger or disgust would be communicated by a political actor in writing. Furthermore, in cases where direct interaction would take place, other nonverbal cues would also influence the emotion perception by observers. Therefore, whilst our studies cannot pinpoint what aspect of negative emotion communication is responsible for the found effects, we believe our studies are well suited at informing real-life reactions to emotional political communication

Third and lastly, although the utilised experimental designs allowed for inferences about causality, the drop-out rate of participants across the studies was substantial. Nevertheless, over the studies, we improved the sampling and the manipulation, and produced clearer effects on political support and the relevant process variables. Together with the consistency of the effects across the studies, this supports the internal validity of our findings.

## CONCLUSION

The present research aimed to answer whether the notion of living in a post-truth political era means that emotional displays by political actors would reliably increase political support. Through systematically varying the display of anger and disgust in a political message, we examined this and found that both liberal and conservative audiences did not increase their support for an emotional communicator over a non-emotional one, did not blindly "catch" the same emotion as the communicator (as they actively engaged in goal inferences), and generally believed such communication to be inappropriate for political actors. As such, this research speaks against the popular notion that we are living in a post-truth political era. Furthermore, this research opens up new avenues for research into the possible universality or uniqueness of anger and disgust effects on support, as well as into the usefulness of communicating other, more positive emotions.

# Chapter 3

"Yes, we can" or "Make America great again"? Testing whether communicating hope and nostalgia affects political support

# ABSTRACT

Research into the role of emotions in political decision making has mostly focused on the role and effects of negative emotions such as fear and anger (see also Chapter 2), whilst in real life political contexts, the use of positive emotions such as hope and nostalgia is increasingly more popular. In three experiments, we tested whether and how the use of hope and nostalgia communication may affect support through either emotional contagion or goal inference processes. In Studies 1a and 1b (total $N = 258$), we examined how messages ostensibly written by a representative of an English student union fighting against rising tuition fees and manipulated to express either hope, nostalgia, or no emotion affected liberal students. Study 2 ($N = 172$) employed a similar design, but focused on how messages ostensibly written by a representative of an English conservative think tank fighting against the Stamp Duty Land Tax policy affected conservative English adults. Across the studies, we found no evidence that the addition of either emotion affected the support for the representative. However, we did find some, although inconsistent evidence in favour of emotion communication for communicated nostalgia, as it increased both the experience of nostalgia and hope, and changed participants' situation perceptions to be more past-focused and less future-focused. Furthermore, and more clearly, the nostalgia message decreased inferences of progressive, future-oriented goals, and increased inferences of regressive, past-oriented ones. We discuss the implications of these findings, which suggest that nostalgia communication in particular may lead to a whole range of psychological reactions which potentially cancel out each other, ultimately leading to no change in political support.

Within the literature on emotional drivers of political behaviour, many examples can be found on how *negative* emotions (such as anger, sadness, and fear) impact our political choices by changing how we engage with and respond to information (Lerner & Tiedens, 2006; Marcus et al., 2000; 2011; 2019; Parker & Isbell, 2010). However, the effects of *positive* emotions have been understudied, even though there are many cases in real life where we see positive emotions being used by political communicators. For instance, some western European parties have adapted *hopeful* (such as the Dutch Groenlinks; Visscher, 2017; and British labour Party; Corbyn, 2019) and *nostalgic* messaging (such as the British UKIP; White, 2015; and the German AfD; Menke & Wulf, 2021) in order to garner support. Furthermore, in the USA, different former presidents used positive sentiments in their slogans during their successful campaigns, with the Obama campaign running on the hopeful platform of "Yes, We Can" in 2008, and the Trump campaign on the nostalgic platform of "Make America Great Again". Given that the communication of these two predominantly positive emotions of *hope* and *nostalgia* seem to have brought success to the leaders who adopted it, we want to empirically examine *whether* and *how* the communication of hope and nostalgia in political communication may increase support for the communicator.

We report three experiments that seek to answer these questions. As in the previous chapter, we focus on the *communication* of emotions rather than their *experience* per se, and theoretically draw from the emotions-as-social-information (EASI) model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010) to investigate whether potential changes in support are due to emotional contagion (Hatfield et al., 1993; in this case meaning elicited *experiences* of hope and nostalgia) or to *inferences* regarding the communicators' goals (Fridlund, 1994; Van Kleef, 2009). More specifically, in Studies 1a and 1b, we examine how (liberal) students in England respond to written messages speaking out against rising tuition fees, ostensibly coming from the National Union of Students (NUS). In Study 2, we examine how English conservatives respond to written messages speaking out against the Stamp Duty Land Tax (SDLT; a tax imposed on those purchasing property) currently in place in England, ostensibly coming from the conservative action group Bright Blue. This approach enabled us to test whether the communication of hope and nostalgia in political messages affects political support (and if so, whether this occurs through emotional contagion or goal inference processes), and whether this is generalisable across the political divide.

**The potential benefits and pitfalls of hope and nostalgia in political communication**
Different from the negative emotions we focused on in the previous chapter, we now focus on the positive emotions of hope and nostalgia. First, hope is felt when people perceive the current situation as differing from its ideal state but assume the situation can be improved by taking action (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019). Specifically, following from research on the cognitive appraisals associated with hope, people feel hope when they believe that, in the future, the situation *can change* to fit with important goals, if someone takes action, even though it is unclear what needs to be done. In terms of subsequent

behaviour, hope predisposes people to start mapping out paths towards the goal in concrete terms and can also stimulate creative thought in order to come up with multiple ideas on how to reach the goals (Cohen-Chen et al., 2017; Snyder, 2002). However, hope itself does not necessarily imply having a clear idea on how to achieve a better future. Indeed, it is only in conjunction with strong efficacy beliefs that actual change can be manifested (Cohen-Chen & Van Zomeren, 2018). Overall then, hope in political messages could have a motivating effect, as it may highlight the malleability of the present situation and the possibility to change it for the better. Although, it also comes with a possible drawback, as a hopeful message does not necessarily provide a clear path towards an end goal.

By contrast, nostalgia is felt when people are faced with a negative present compared to a better past (Sedikides et al., 2008; Van Tilburg et al., 2019). As such, it can be described as sentimental longing for the past. It is felt when people focus on a self-relevant pleasant past, which feels distant and may be irretrievably lost. Indeed, it is this dual reflection on a lost but happy past which fits well with the often described feeling of bittersweetness associated with nostalgia, though it has been found that nostalgia is experienced more as a positive than a negative emotion. Furthermore, nostalgia motivates meaning finding (Sedikides & Wildschut, 2018), a process with a range of outcomes. For instance, it can strengthen people's connection others, raise feelings of self-esteem, optimism, and identity continuity, and motivate proactive behaviour and goal pursuit via inspiration evocation (Sedikides et al., 2008, 2017; Sedikides & Wildschut, 2016; Smeekes et al., 2018; Smeekes & Verkuyten, 2015; Stephan et al., 2015). Ultimately then, and much like hope, nostalgia in political messages could have a motivating effect by providing a clear end goal to be reached. However, this message may also have a drawback, as it highlights the irretrievability of the pleasant past that has been lost.

Table 3.1 shows the overview of the key cognitive appraisals and down-stream effects associated with hope and nostalgia side by side. From these descriptions of hope and nostalgia, it can be seen why political parties would use these emotions in their messaging. The experience of both hope and nostalgia can stimulate people to change the current situation for (what they believe is) the better, with hope inspiring a perception of a changeable present that can turn into a better future through action, and nostalgia inspiring a drive to return to the values and practices of the past. However, both emotions carry with them potentially dangerous drawbacks, with hope failing to provide a clear path forward and a clear end goal, and with nostalgia highlighting how far the present is removed from the ideal past. Important to note is that, although the current analysis has focused mainly on the many aspects of hope and nostalgia as *experienced* emotions, the focus of our present research is on the effects of these emotions when they are *communicated* to people. How people engage with the communicated emotion may be an important consideration in determining whether or not the motivating aspects of hope and nostalgia outweigh their potential drawbacks.

**Table 3.1**

*Key cognitive appraisals and downstream effects of hope and nostalgia*

|  | Hope | Nostalgia |
|---|---|---|
| Cognitive appraisals | Present is not in line with goals | Present is worse than the past situation |
|  | Present can be changed through action | Past feels far away/irretrievably lost |
|  | Future is expected to better fit with goals |  |
| Down-stream effects | Planning | Increase social cohesion |
|  | Cognitive flexibility | Engage in finding meaning in life |
|  | Motivation to resolve negative situation | Motivation to return to past values |
|  |  | Increase self-esteem/sense of self-identity |

**How communicated hope and nostalgia may influence political support through emotional contagion and goal inference**

The current research moves beyond studying the effects of the *experience* of hope and nostalgia within political contexts and focuses on the effects of the *communication* of these emotions by political actors. Therefore, in addition to examining the content of hope and nostalgia specifically, we also need to focus more broadly on how individuals perceive and react to emotion communication. For this, we draw inspiration from the emotions-as-social information (EASI) model (Van Kleef, 2009, 2010; 2017; Van Kleef et al., 2010). This model posits that emotion communication can bring about change in the behaviour of observers through either *affective* or *cognitive* processes, with sometimes converging, and sometimes diverging results in terms of behavioural response. We focus on two relevant specific reactions to political messages, namely *emotional contagion* (Hatfield et al., 1993) as an example of an affective reaction, and *goal inference* (Fridlund, 1994; Van Kleef, 2009) as an example of a cognitive reaction, that can occur as a result of hope and emotion communication.

*Emotional contagion* refers to the process of when a communicator elicits the same emotional reaction in the observer as the one they experience and communicate (Hatfield et al., 1993; 2014). We explore whether such a process occurs by examining whether communicated hope transforms into the experience of hope, and whether communicated nostalgia transforms into the experience of nostalgia. In turn, changes in emotional experience may not always motivate political support, as this will depend on the key appraisals associated with the elicited emotions. Specifically, in line with the view of emotions act as interconnected syndromes of cognitive appraisals, subjective experiences, and behavioural intentions (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985), the experience of hope may bring along appraisals of the situation as malleable and controllable by individuals — a key perception needed for action toward change. We believe that, via the emotional contagion pathway, the communication of hope could *increase support* for the communicator who communicates hope and thus presents themselves as the person who will strive towards the important goals (i.e., betterment

of the current situation) shared by the audience. Indeed, previous research has shown that observing hope expressions by out-group members can lead to more conciliatory attitudes in the observers via an increase in the experience of hope (Cohen-Chen et al., 2019). By contrast, the emotional contagion pathway may *backfire* in terms of support when the communicator communicates nostalgia, as it brings along the appraisal of the situation as having irreversibly changed for the worse. This perception can demotivate individuals, and lower support for the communicator. In sum, we expect that, if an emotional contagion process were to occur, the communication of hope rather than nostalgia would increase political support.

Emotion messages, however, do not necessarily only yield a response because of emotional contagion processes, but can also lead people to engage in more cognitive processes, such as inferring the goals of the communicator (see Chapter 2, where we found this to be the dominant response). *Goal inference* refers to the process in which people act as "lay psychologists", using their knowledge of specific emotions to uncover the intentions of a communicator who uses those emotions in their message or interaction (Fridlund, 1994; Van Kleef, 2009). Counter to the emotional contagion pathway which relies on the appraisal aspect of emotions, this pathway to political support relies more on (people's knowledge regarding) the *behavioural intentions* associated with the communicated emotions. Here, we again expect differences here between the communication of hope and nostalgia. Whereas hope can communicate general ideas of change (i.e., toward a "better" future), it often lacks a clear goal or path to follow. Therefore, hope may fail to increase support through a goal inference process, because it does not clarify *what* change will concretely be achieved through *which* action. By contrast, the communication of nostalgia provides a much clearer goal to be reached: the old practices and values (i.e., the way things were). Inferring such a clear and concretely defined goal may then motivate support for the communicator. In sum, we expect that, if a goal inference process would occur, the communication of nostalgia, but not hope, would increase political support.

**Hypotheses and overview of studies**

In three experiments, we investigated whether and how the communication of hope and nostalgia in political messages strengthens political support for the communicator (through either emotional contagion or goal inferences) among liberal and conservative audiences. Figure 3.1 at the end of this section provides an overview of our conceptual model that guides our research and predictions. If *emotional contagion* were to occur, we believe that the messages of hope and nostalgia would induce the same emotions in the audience, which would then lead to changes in people's appraisal of the situation, specifically with regards to the perceived changeability of the present situation, and the perceived relation to how things were in the past. Hope could be more effective in garnering support, as it highlights the possibility of change, whereas nostalgia would backfire, as it highlights the irreversible loss of good practices.

If *goal inference* were to occur, we believe that these would not be beneficial for the hope message, as it would likely only lead to inferences of broad, unspecified, future-oriented goals. Conversely, it would be beneficial for the nostalgia message, where the bright past forms the guide for behaviour, leading to specific, past-oriented goal inferences. Ultimately, the nostalgia message could thus be more effective in garnering support.

Furthermore, our research sought to examine whether the same results would be found when investigating audiences at both ends of the political spectrum. Therefore, we conducted three experiments, presenting English (liberal) students (Study 1a and 1b), and English conservatives (Study 2) with hope and nostalgia messages from a communicator looking for support. The students read a message ostensibly from a National Union of Students representative speaking against (rising) tuition fees in England, and the conservatives read a message ostensibly from a representative of the conservative political think tank Bright Blue speaking out against the Stamp Duty Land Tax (SDLT) on property purchases. Within this message, we systematically varied whether the representative used hope, nostalgia, or no emotion. Afterwards, we measured support for the communicator, experienced hope and nostalgia, appraisals of the situations, inferred goals, and perceptions of the communicator. This identical set-up across studies enabled us to systematically examine whether, and if so, how the use of hope and nostalgia adds value to political messaging aimed at increasing political support.

**Figure 3.1**

*Conceptual model of how hope and nostalgia communication may affect political support*
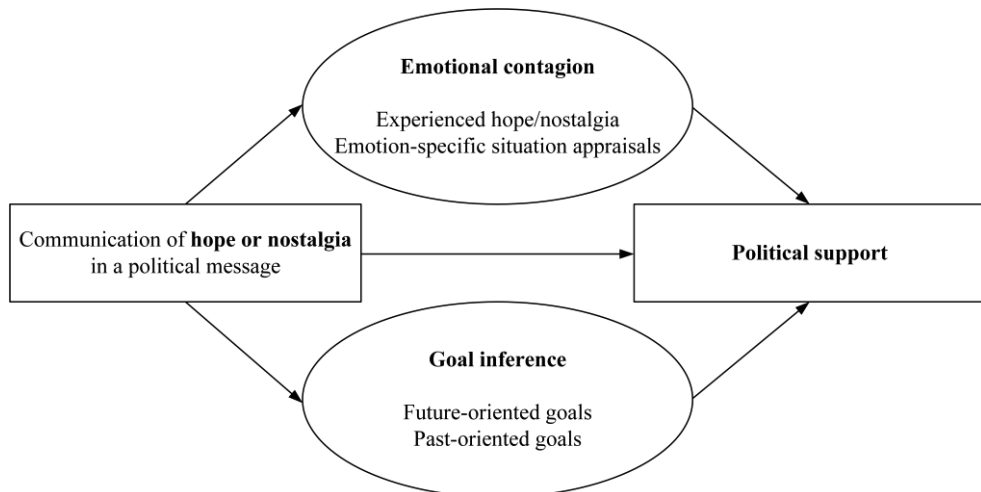
## STUDY 1A AND 1B: METHODS

Both Study 1a and 1b examined the effects of hope and nostalgia messages on support (and associated psychological mechanisms) on a liberal audience, using the issue of tuition fees as context (see also for example, Saab et al., 2016; Tausch & Becker, 2013).

### Participants and Design

The two studies used a between-subjects, experimental design. Participants were randomly assigned to one of three conditions (Hope vs. Nostalgia vs. Non-emotion message). One-hundred eighty and 251 English students were recruited using Prolific Academic for Study 1a and 1b respectively, and they received a small monetary reward for participating. In Study 1a, one participant indicated that their data should not be used for analysis. This was the case for two participants in Study 1b. These participants were removed for the analyses.

Based on quality checks, the sample was further reduced. Participants were included if they had spent at least eight seconds on the (shorter) non-emotion message page or 25 seconds on the (longer) emotion message pages, shared a similar opinion to the communicator (tuition fees should remain stable or be decreased), and successfully completed the instructional manipulation check. The amount of time spent on the page that was deemed acceptable was based on inspection of the completion times of the samples and the relative lengths of the messages. Two checks using recall of textual elements to assess attention and condition assignment were not used, due to possible confusion arising from the wording of the items. Following these guidelines 107 and 160 participants remained in Study 1a and 1b, respectively (Study 1a: $N_{hope} = 38$, $N_{nostalgia} = 30$, $N_{Non\text{-}emotion} = 39$; Study 1b: $N_{hope} = 56$, $N_{nostalgia} = 45$, $N_{Non\text{-}emotion} = 59$). Supporting the intended ideological orientation of the samples, both samples indicated a liberal political orientation (1a: $M = 3.04$; 1b: $M = 3.17$) and were relatively engaged with the issue (1a: $M = 3.76$; 1b: $M = 3.71$), scoring below and above the midpoint of their respective seven-point scales[11]. Further sample information can be found in the Supplementary Materials Chapter 3, section 1 in Appendix 2.

### Procedure

Data for Study 1a and 1b were collected in September and October 2019, respectively. The procedure across the studies was virtually identical. Participants first read a short introductory text and indicated their consent in participating in the study. After giving consent, participants

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[11] Participants indicated their political orientation by describing themselves as 1 (Very/Strong Left-wing) to 7 (Very/Strong Right-wing) using the following three items after the stem: regarding economic issues *I would describe myself, regarding social issues I would describe myself, generally I would describe myself* (1a: α = .91; 1b: α = .89). Similarly, they indicated their engagement with topic using three items: *I actively engage with others about the topic, I think about the topic in my day-to-day life, I talk about the issue with others* (1a: α = .89; 1b: α = .90) Participants indicated their attitude towards tuition fees on a scale ranging from 1 (Tuition fees should be decreased so that education is free) to 5 (Tuition fees should be increased a lot).

provided demographic information and read a short text explaining how the tuition fee system was organised and how, since their introduction roughly 20 years ago, tuition fees had steadily increased over the years. Participants were then asked to indicate how engaged they were with the topic. After responding to these items, participants were randomly assigned to one of the three conditions, where they were instructed to read a statement made by a representative of the National Union of Students. After reading the statement, participants completed the questionnaire with the key measures of issue position, support, experienced emotions and temporal focus, emotion-specific appraisals, inferred goals, and the perception of the message as a template for rebuilding the past and/or changing the future (Study 1a only). Several additional items were measured but are not included here (see Supplementary Materials Chapter 3, section 2 in Appendix 2 for an overview). Afterwards, participants completed a few manipulation and quality checks, were debriefed, and thanked for their participation.

**Manipulation and Measures**

Unless indicated otherwise, participants answered by indicating their agreement on Likert-type scales ranging from 1 (Not at all) to 7 (Very much), and for scales with multiple items, mean scores were calculated. Only the key dependent variables are described here. The full manipulation texts and a description of the instructional manipulation check can be found in the Supplementary Materials Chapter 3, sections 3 and 4 in Appendix 2.

*Manipulation*

In the emotion conditions of both studies, participants read messages consisting of four paragraphs, whereas for the non-emotion condition, the participants read shorter versions of the first and last paragraphs in which no emotion was mentioned. All messages were presented as images that looked like they could have been posted on the website of the National Union of Students.

In the first paragraph, the representative presented the issue of rising tuition fees as an immoral one, supplemented with a focus on the future in the hope message, or the past in the nostalgia message. In the second paragraph, the representative further elaborated their point, referencing their hope that through action change towards a better future can be achieved in the hope message, or their longing to return to a better past in the nostalgia message. In the third paragraph, the representative invited the audience to mentally simulate achieving a better future in the hope message, or regaining the better past in the nostalgia message. In the last paragraph, the representative explicitly called on the reader to support them, with the emotional representatives calling on the reader to channel their emotion in doing so[12].

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[12] In Study 1b, some elements of each message that expressed either hope or nostalgia were displayed in bold font, and the explicit call to channel the emotions was removed in order to keep the emotional reactions to the messages as spontaneous as possible.

*Checks*

Participants indicated whether the representative was *hopeful, nostalgic* or *did not mention their emotional state*, whether the representative believed the issue was fundamentally moral or purely monetary, completed an instructional manipulation check (Oppenheimer et al., 2009), and whether they had answered the questionnaire seriously. The checks using textual recall were not used, as the set-up allowed for multiple interpretations of the mental state of the representative, and both money and morality were mentioned in the messages. We assumed that the completion time and instructional manipulation check were sufficient in selecting participants that paid enough attention to the message. Alternatively, to assess the effectiveness of the manipulations, participants rated their perception of the representative's emotional state using four, single-item measures: *After reading their view on increasing tuition fees, I believe that the union representative… is hopeful, is nostalgic, is mostly focused on the future, is mostly focused on the past*.

*Support*

Participants indicated agreement with six statements regarding their support for the representative: *I believe the representative acts on behalf of my values and interest, I believe in the goals of the representative, I support the representative, I would pledge money to support the representative, I would share information with other students on behalf of this representative,* and *I would vote for this representative to become part of the leadership of the NUS* (1a: α = .92; 1b: α = .92).

*Emotional contagion*

**Experienced emotions and temporal focus.** Participants indicated their emotional state using the following seven items: *After reading the statement of the representative, I feel… hopeful, nostalgic, bittersweet, concerned about the present situation, deprived by the present situation, focused on the future, focused on the past*. In Study 1a, based on correlation and factor analysis, the hopeful, concerned and future focus items could be combined into a single hope scale (α = .69), and that the remaining items could be combined into a single nostalgia scale (α = .69). In Study 1b, factor analysis showed that these scales could not be reliably reproduced, and the items were kept apart.

**Emotion-specific appraisals.** Participants indicated to what extent they thought that the situation was changeable in the future, a key appraisal of hope (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019), using three self-generated items: *I believe… that the future of the tuition fee system is uncertain, that the system can possibly change,* and *that there is an opportunity to change the system*. Similarly, they also indicated to what extent they thought that the old situation was far removed from the present-day situation, a key appraisal of nostalgia (van Tilburg et al., 2019), using three self-generated items: *I believe… that the old system of financing higher education was unique, that the old system of financing*

*higher education feels very distant from the present situation,* and *that the changes made to the old system to form the one of the present day are almost impossible to overcome*.

### Goal inference

For the goal inference items, we self-generated a number of items based on the descriptions of the behavioural consequences of experienced hope and nostalgia (e.g., Chadwick et al, 2015; Sedikides et al., 2008) for Study 1a and that fit with the context of our studies. We generated items focusing on the difference between hope and nostalgia with regards to their temporal orientation (future- versus past-focused) and level of concreteness for future actions (going towards a specific system versus making a system that adheres to broad values). For Study 1b (and 2), we further refined these self-generated items based on the findings of Study 1a.

**Future-oriented goals.** In Study 1a, participants indicated their perception of two future-oriented goals, measured using single-item measures: *I believe that the union representative wants... to plan a full campaign to change the situation, and to come up with an innovative, new system that is more fair.* Additionally, we measured to what extent people believed the message was a template for achieving a different future using two items: *This statement painted a clear picture of the future that I would like to help build or shape, and this statement painted a concrete picture of the future that I am motivated to help build or shape* ($r = .88$). In Study 1b, these items were combined into a single goal to achieve a new innovative system, which was measured using two new items: *I believe that the union representative wants... to help build a new system for funding higher education that is currently unheard of tin this country, and to achieve a new system of funding higher education unlike any that has ever been seen in this country* ($r = .80$).

**Past-oriented goals.** In Study 1a, participants indicated their perception of two past-oriented goals, measured using single-item measures: *I believe that the union representative wants... to contribute to recovering the values that used to shape English higher education, and to work towards recreating the system as it used to be.* Additionally, we measured to what extent people believed the message was a template for recreating the past using two items: *This statement painted a clear picture of the past I would like to recover or create again in the future, and this statement painted a concrete picture of the past that I am longing to re-experience or create again in the future* ($r = .88$). In Study 1b, a single goal to return to the old system of higher education funding was used to replace the return to the old system and goal template item, which was measured using two new items: *I believe that the union representative wants... to bring about changes that will lead to the reintroduction of the old system of funding higher education in the future, and to take steps so that the old system of funding higher education will be reinstated in the future* ($r = .79$). The goal to restore the old values was kept as a single-item measure.

## STUDY 1A AND 1B: RESULTS

To test our hypotheses, we used ANOVAs and two follow-up comparison contrasts. The first contrast tested the overall effect of adding emotions to a statement, and the second contrast focused specifically on the difference between the hope and nostalgia message. Before these analyses, univariate outliers were identified using boxplots. If a participant was an outlier for three or more variables, they were removed from the sample. This was the case for three participants in Study 1a and six participants in Study 1b. For each section, we first provide the main conclusions, then follow with the statistical analyses supporting those findings, and lastly give a full description of each statistical effect. The means and standard deviations for Study 1a and 1b, and the associated test statistics can be found in Tables 3.2 through 3.9. Effect sizes are classified following the rules of thumb from Cohen (1988; small $R_{adj}^2/\eta_p^2 =$ .01, medium $R_{adj}^2/\eta_p^2 = $ .06, large $R_{adj}^2/\eta_p^2 = $ .14).

### Manipulation checks

Overall, we found that the communication of nostalgia was reliably perceived as nostalgia, but the communication of hope did not lead to greater perceptions of hope, and was sometimes even perceived as nostalgia, meaning that the manipulation was only partially successful. As a result, we can be confident that any changes after reading the nostalgia message can be attributed to communicated nostalgia, but any changes after reading the hope message cannot be as clearly attributed to communicated hope.

Statistically, as seen from Table 3.3, for the perceived hopefulness of the representative, there was a significant medium overall, and significant medium overall emotion contrast effect in Study 1a. The hope versus nostalgia contrast effect in Study 1a, and all three effects in Study 1b were not significant. For the perceived future focus of the representative, the overall effect, and hope versus nostalgia contrast effect were significant in Study 1a, both small to medium in size, but the overall emotion contrast was not significant. In Study 1b, all three effects were significant, with the overall and hope versus nostalgia contrast effects being medium, and the overall emotion contrast effect being small in size. For perceived nostalgia, and for both studies, all effects were significant, with the overall effect and overall emotion contrast effect being medium to large, and the hope versus nostalgia contrast being small to medium in size. Similarly, for the perceived focus on the past, all three effects were significant in both studies. The overall effect was large in both studies, the overall emotion contrast effect was large in Study 1a, but medium in Study 1b, and the hope versus nostalgia contrast effect was medium to large in Study 1a, but large in Study 1b.

As can be seen from the means in Table 3.2, participants perceived the representative as more hopeful after reading either of the emotion messages in Study 1a than after reading the non-emotion message, whereas hope was equally perceived after each message in Study 1b. Furthermore, in both studies, people perceived the representative to be less focused on the future after reading the nostalgia message than after reading the hope and non-emotion

message. Participants in both studies perceived the representative as more nostalgic after reading either of the emotion messages, but especially so after reading the nostalgia message. Similarly, both messages in Study 1a, and only the nostalgia message in Study 1b increased the perception of the representative as more past-focused compared to the non-emotion message. Together, these findings suggest that communicated nostalgia is more easily perceived than communicated hope, and that our manipulation worked only semi-successfully.

**Table 3.2**

*Means and standard deviations for the manipulation checks in Study 1a and 1b*

| Variable | Study | Hope | Nostalgia | Non-emotion |
|---|---|---|---|---|
| Perceived hope | 1a[ab] | 6.38 (0.64) | 6.43 (0.69) | 5.62 (1.31) |
| | 1b | 6.02 (1.02) | 5.87 (1.41) | 5.96 (1.04) |
| Perceived nostalgia | 1a[abc] | 4.78 (1.40) | 5.75 (1.21) | 3.82 (1.70) |
| | 1b[abc] | 4.09 (1.35) | 5.33 (1.57) | 3.40 (1.70) |
| Perceived focus on the future | 1a[ac] | 6.14 (0.95) | 5.43 (1.29) | 5.92 (0.81) |
| | 1b[abc] | 5.94 (1.02) | 4.80 (1.66) | 5.89 (0.98) |
| Perceived focus on the past | 1a[abc] | 3.35 (1.32) | 4.68 (1.09) | 2.59 (1.25) |
| | 1b[abc] | 2.76 (1.15) | 4.96 (1.62) | 2.87 (1.45) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined hope and nostalgia condition mean differed from the non-emotion condition mean

[c] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 3.3**

*Test statistics for the manipulation checks in Study 1a and 1b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Perceived hope | 1a | 8.19 | .001 | .12 | 4.05 | < .001 | .14 | 0.21 | .835 | .00 |
| | 1b | 0.22 | .806 | -.01 | -0.11 | .914 | .00 | -0.65 | .514 | .00 |
| Perceived nostalgia | 1a | 14.11 | < .001 | .20 | 4.83 | < .001 | .19 | 2.62 | .010 | .06 |
| | 1b | 19.65 | < .001 | .20 | 5.05 | < .001 | .14 | 3.98 | < .001 | .10 |
| Perceived focus on the future | 1a | 4.04 | .020 | .06 | -0.69 | .491 | .01 | -2.82 | .006 | .07 |
| | 1b | 13.23 | < .001 | .14 | -2.51 | .013 | .04 | -4.62 | < .001 | .12 |
| Perceived focus on the past | 1a | 23.42 | < .001 | .30 | 5.68 | < .001 | .24 | 4.29 | < .001 | .15 |
| | 1b | 36.78 | < .001 | .32 | 4.15 | < .001 | .10 | 7.72 | < .001 | .28 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 101/151 in Study 1a/1b, respectively

**Support**

Overall, we found that hope and nostalgia communication did not affect political support for the communicator. Statistically, as seen from Tables 3.4 and 3.5, none of the effects were significant in either study. These null effects could still fit with our hypotheses regarding both the positive and negative effects that communicated hope and nostalgia may have. As

such, we examined the effects of the manipulation on both emotional contagion and goal inference indicators.

**Table 3.4**

*Means and standard deviations for support in Study 1a and 1b*

| Variable | Study | Hope | Nostalgia | Non-emotion |
|---|---|---|---|---|
| Support for communicator | 1a | 5.05 (1.25) | 4.81 (1.29) | 4.62 (1.15) |
| | 1b | 5.00 (1.10) | 4.89 (1.45) | 5.07 (1.11) |

*Note.* None of the tested effects were significant

**Table 3.5**

*Test statistics for the manipulation checks in Study 1a and 1b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Support for communicator | 1a | 1.22 | .299 | .00 | 1.27 | .207 | .02 | -0.80 | .427 | .01 |
| | 1b | 0.28 | .753 | -.01 | -0.64 | .527 | .00 | -0.44 | .660 | .00 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 101/151 in Study 1a/1b, respectively

## Emotional contagion

Overall, we found an inconsistent pattern of results across the appraisals (and the experience of hope and nostalgia), which indicates no general support for the emotional contagion pathway. However, we did find some evidence that exposure to a nostalgia message can slightly increase feelings of nostalgia and induce appraisals consistent with the emotion, which together represents mixed support for our hypotheses regarding the emotional contagion pathway.

### *Experienced emotions*

Overall, we found some evidence that reading either of the emotion messages could increase the perception of nostalgia and bittersweetness, and that reading the nostalgia message could make participants more past-focused. Taken together, the results suggest that emotional contagion is an unlikely response to hope and nostalgia communication, and that if it occurs, it only affects nostalgia, representing mixed evidence for our hypotheses.

Statistically, as seen from Table 3.7, for experienced nostalgia, there was a marginally significant small overall, and significant small to medium overall emotion contrast effect in Study 1a. In Study 1b, there was a marginally significant small overall emotion contrast effect for experienced bittersweetness, and a significant small overall, and small to medium hope versus nostalgia contrast effect for past focus. However, the other effects for these variables, as well as all effects for the indicators of experienced nostalgia and deprivation were not significant in Study 1b. In both studies, the effects on experienced hope or its indicators were not significant.

As can be seen from the means in Table 3.6, both hope and nostalgia messages elicited nostalgia in readers in Study 1a, and some bittersweetness in Study 1b. Experienced hope or its indicators were not affected in the studies by the messages, suggesting that emotional contagion only seemed to occur for nostalgia, but is generally unlikely.

### *Emotion-specific appraisals*

Overall, we found that people were less likely to endorse the appraisals related to hope, but more likely to endorse the appraisals related to nostalgia after reading the nostalgia message (although the changes were not significant for all appraisals and in all studies). These findings again suggest that emotional contagion, in this case through affecting cognitive appraisals, is a relatively unlikely response to emotion communication, and only seems to occur after nostalgia communication. This also represents mixed evidence for our hypotheses.

We first consider the appraisals theoretically linked to hope. Statistically, as seen from Table 3.7, for the appraisal of the situation as uncertain, there was a significant small overall, and significant small to medium hope versus nostalgia contrast effect in Study 1b, but the other contrast effect as well as the effects in Study 1a were not significant. For the appraisal of the situation as possible to change, all effects were marginally significant in Study 1a, being small in size, but none were significant in Study 1b. For the appraisal of the situation as an opportunity to change, there was a marginally significant small to medium overall effect, and a significant small to medium hope versus nostalgia effect in Study 1a, but the other contrast effect and all the effects in Study 1b were not significant.

Considering the appraisals theoretically linked to nostalgia, we see that for the appraisal of the present as unique, there was only a marginally significant small hope versus nostalgia contrast effect in Study 1a, but all other effects and all effects in Study 1b were not significant. For the appraisal of the past as distant, there was a marginally significant small overall effect, and a significant small to medium hope versus nostalgia contrast effect in Study 1a, but the overall emotion contrast effect was not significant. In Study 1b, the overall effect and the hope versus nostalgia contrast effect were significant, both being small to medium in size, and the overall emotion contrast effect was marginally significant, being small in size. For the appraisal of the situation as irreversibly changed, the overall and hope versus nostalgia contrast effect were significant in Study 1b, being small to medium and small in size respectively, and the overall emotion contrast effect was marginally significant, and small in size. In Study 1a, none of the effects were significant.

As can be seen from the means in Table 3.6, for the studies where the effects on the hope-specific appraisals were present, people were less likely to appraise the situation as described in these three appraisals after reading the nostalgia message than after reading the hope or non-emotion messages. Conversely, for the studies where the effects on the nostalgia-specific appraisals were present, people were more likely to appraise the situation as described in these three appraisals after reading the nostalgia message than after reading the hope or non-

emotion messages. Together, these findings provide inconsistent evidence for emotional contagion as a consequence of the nostalgia message, but not for the hope message.

**Table 3.6**

*Means and standard deviations for the emotional contagion measures in Study 1a and 1b*

| Variable | Study | Hope | Nostalgia | Non-emotion |
|---|---|---|---|---|
| Emotional contagion: experienced emotions | | | | |
| Experienced hope | 1a | 5.08 (0.97) | 4.83 (1.03) | 4.64 (1.20) |
| | 1b | 4.41 (1.34) | 4.18 (1.60) | 4.07 (1.60) |
| Experienced concern | 1b | 5.11 (1.30) | 4.84 (1.62) | 5.24 (1.12) |
| Future focus | 1b | 5.13 (0.97) | 4.89 (1.17) | 4.93 (1.03) |
| Experienced nostalgia | 1a[b] | 3.45 (1.06) | 3.54 (1.37) | 2.94 (1.16) |
| | 1b | 2.78 (1.57) | 3.22 (1.85) | 2.60 (1.72) |
| Experienced bittersweetness | 1b | 3.37 (1.47) | 3.13 (1.71) | 2.78 (1.58) |
| Experienced deprivation | 1b | 4.02 (1.51) | 4.29 (1.67) | 4.20 (1.51) |
| Past focus | 1b[ac] | 2.69 (1.16) | 3.40 (1.48) | 2.78 (1.41) |
| Emotional contagion: appraisals | | | | |
| Situation as uncertain | 1a | 5.57 (1.37) | 5.46 (1.57) | 5.62 (1.35) |
| | 1b[ac] | 5.46 (1.18) | 4.87 (1.50) | 5.40 (1.12) |
| Situation as possible to change | 1a | 5.41 (1.28) | 4.82 (1.39) | 5.64 (1.51) |
| | 1b | 5.17 (1.34) | 5.07 (1.42) | 5.42 (1.42) |
| Situation as opportunity for change | 1a[c] | 5.30 (1.35) | 4.39 (1.75) | 5.10 (1.45) |
| | 1b | 5.17 (1.49) | 5.00 (1.49) | 5.33 (1.32) |
| Past as unique | 1a | 3.59 (1.66) | 4.36 (1.57) | 3.85 (1.58) |
| | 1b | 3.63 (1.32) | 3.80 (1.84) | 3.84 (1.62) |
| Past as distant | 1a[c] | 5.08 (1.36) | 5.82 (1.02) | 5.33 (1.46) |
| | 1b[ac] | 5.09 (1.43) | 5.93 (1.10) | 5.09 (1.35) |
| Past as irreversibly changed | 1a | 3.95 (1.22) | 4.29 (1.38) | 3.67 (1.69) |
| | 1b[ac] | 3.57 (1.31) | 4.27 (1.64) | 3.47 (1.54) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined hope and nostalgia condition mean differed from the non-emotion condition mean

[c] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 3.7**

*Test statistics for the emotional contagion measures in Study 1a and 1b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Emotional contagion: experienced emotions | | | | | | | | | | |
| Experienced hope | 1a | 1.58 | .210 | .01 | 1.44 | .153 | .02 | -0.92 | .362 | .01 |
| | 1b | 0.69 | .502 | .00 | 0.863 | .389 | .01 | -0.75 | .453 | .00 |
| Experienced concern | 1b | 1.08 | .344 | .00 | -1.14 | .255 | .01 | -0.98 | .328 | .01 |
| Future focus | 1b | 0.78 | .462 | .00 | 0.46 | .645 | .00 | -1.13 | .260 | .01 |
| Experienced nostalgia | 1a | 2.69 | .073 | .03 | 2.32 | .023 | .05 | 0.33 | .741 | .00 |
| | 1b | 1.71 | .185 | .01 | 1.39 | .166 | .01 | 1.29 | .199 | .01 |
| Experienced bittersweetness | 1b | 1.90 | .153 | .01 | 1.76 | .080 | .02 | -0.74 | .460 | .00 |
| Experienced deprivation | 1b | 0.39 | .675 | -.01 | -0.18 | .860 | .00 | 0.86 | .392 | .01 |
| Past focus | 1b | 3.94 | .022 | .04 | 1.15 | .254 | .01 | 2.62 | .010 | .04 |
| Emotional contagion: appraisals | | | | | | | | | | |
| Situation as uncertain | 1a | 0.09 | .911 | -.02 | -0.35 | .731 | .00 | -0.29 | .772 | .00 |
| | 1b | 3.23 | .042 | .03 | -1.11 | .270 | .01 | -2.34 | .020 | .04 |
| Situation as possible to change | 1a | 2.86 | .062 | .04 | -1.85 | .067 | .03 | -1.67 | .099 | .03 |
| | 1b | 0.87 | .423 | -.00 | -1.28 | .201 | .01 | -0.36 | .723 | .00 |
| Situation as opportunity for change | 1a | 3.09 | .050 | .04 | -0.84 | .401 | .01 | -2.40 | .018 | .05 |
| | 1b | 0.65 | .525 | -.01 | -1.01 | .313 | .01 | -0.58 | .565 | .00 |
| Past as unique | 1a | 1.83 | .166 | .02 | 0.40 | .692 | .00 | 1.90 | .061 | .03 |
| | 1b | 0.26 | .774 | -.01 | -0.45 | .651 | .00 | 0.53 | .597 | .00 |
| Past as distant | 1a | 2.55 | .084 | .03 | 0.44 | .661 | .00 | 2.24 | .027 | .05 |
| | 1b | 6.55 | .002 | .07 | 1.91 | .058 | .02 | 3.18 | .002 | .06 |
| Past as irreversibly changed | 1a | 1.47 | .234 | .01 | 1.52 | .132 | .02 | 0.93 | .354 | .01 |
| | 1b | 4.00 | .020 | .04 | 1.78 | .078 | .02 | 2.29 | .023 | .03 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 101/151 in Study 1a/1b, respectively

## Goal inference

Overall, we found a pattern of results across measures and studies that showed that participants who read the nostalgia message were more likely to infer past-oriented goals and less likely to infer future-oriented ones. However, the pattern of results is less clear for the hope message, with participants reading it only considering the message more as a template for the future, but not actually inferring the goals of the communicator to be future-oriented, and sometimes even inferring more past-oriented goals. These findings are in line with our predictions that hope messaging is less clear on its goals, where nostalgia messaging firmly positions going back to the past as its main outcome.

### *Future-oriented goals*

Overall, we found support for our hypotheses as the hope message does not lead to clear goals. It was perceived as a template for the future and led to more inferences that the representative wanted to start a campaign, but not to more inferences regarding the creation of a new, fairer system compared to a non-emotion message. Conversely, the nostalgia message, although not seen more as a template for the future than the non-emotion message, also led to greater inferences that the representative wanted a campaign. However, it did clearly lead to less inferences regarding the creation of a new, fairer system. Indeed, thus far, this is in line with our hypothesis that nostalgia communication leads to clear inferences on wanting to return to the past.

Statistically, as seen from Table 3.9, for the goal of wanting to start a campaign to achieve change, the overall effect was marginally significant, and overall emotion contrast effect was significant, both being small to medium in size, and the other contrast effect was not significant. For the goal of achieving a fairer system, none of the effects were significant. For the question of whether the message was a template for future achievements, the overall, and the hope versus nostalgia contrast effect were significant, both being small to medium in size, and the other contrast effect was not significant. In Study 1b, for the goal to achieve an innovative system in the future, which covers all these inferred goals, the overall, overall emotion, and hope versus nostalgia contrast effect were all significant, being large, small to medium, and medium to large in size.

As can be seen from the means in Table 3.8, in Study 1a, the goal to start a campaign was inferred more after reading either of the emotion messages. The goal to make the system fairer was equally inferred after reading either of the three messages. The perception of the message as a template for the future was perceived more after reading the hope message than after reading the nostalgia, or non-emotion message. Lastly, in Study 1b, the inference of the general goal of creating an innovative system in the future was only affected by the nostalgia message, as people inferred it less after reading that message than after reading the other two. Together, this suggests that the hope message only communicates a broad forward-moving goal, without being specific, whereas the nostalgia message clearly communicates not moving forward.

### *Past-oriented goals*

Overall, we found support for our hypothesis regarding communicated nostalgia providing clear goals to return to the past. It was the message most seen as a template to return to the past and increased the inference of both wanting to go back to the system and the values of old in both studies compared to the other messages in both studies. Conversely, the hope message was also to some extent seen more as a template to return to the past and led to a greater inference of the goal to return to the past system compared to the non-emotion message in Study 1a, but this was not replicated in Study 1b. Indeed, this is again in line with the hypothesis regarding the hope message not providing a clear goal to strive for.

Statistically, as seen from Table 3.9, for the goal to return higher education to its past image, the overall, overall emotion contrast, and hope versus nostalgia contrast effect were all significant in Study 1a, being medium to large, medium to large and medium in size, respectively. For the goal of wanting to restore the values of free higher education, the overall effect, and hope versus nostalgia contrast effect were significant, both being small to medium in size, and the overall emotion effect was marginally significant, and small in size. Similarly, both the overall, and hope versus nostalgia contrast effect were significant in Study 1b, although small in size, but the overall emotion effect was not significant. For the question of whether the message was a template for returning to the past, the overall, the overall emotion contrast effect, and the hope versus nostalgia contrast effect were significant, being medium to large, medium to large, and small to medium in size. For the overarching goal to return to the old system in the future in Study 1b, the overall, overall emotion, and hope versus nostalgia contrast effect were all significant, being large to medium, small to medium and medium to large in size, respectively.

As can be seen from the means in Table 3.8, participants in both studies inferred the goal of wanting to return the values of old more often after reading the nostalgia message than after reading the hope or non-emotion messages. Furthermore, in Study 1a, reading either the hope or nostalgia message, but especially so after reading the nostalgia message, made people infer the goal of wanting to return to the actual system of old and perceive the message as a template to return to the past. However, in Study 1b, this greater inference for wanting to return the actual practices of old only occurred after reading the nostalgia message compared to after reading the other two messages. Together, this suggests that nostalgia communication clearly leads to inferences of returning to the old system, whereas hope communication does not provide a clear goal.

**Table 3.8**

*Means and standard deviations for the goal inference measures in Study 1a and 1b*

| Variable | Study | Hope | Nostalgia | Non-emotion |
|---|---|---|---|---|
| | Goal inferences: future-oriented goals | | | |
| Goal to campaign | 1a[b] | 5.59 (1.26) | 5.71 (1.30) | 4.97 (1.60) |
| Goal to make system fair | 1a | 4.92 (1.50) | 4.89 (1.40) | 4.79 (1.72) |
| Future template | 1a[ac] | 5.26 (1.31) | 4.45 (1.54) | 4.38 (1.76) |
| | 1b[abc] | 4.79 (1.54) | 2.86 (1.74) | 4.66 (1.50) |
| | Goal inferences: past-oriented goals | | | |
| Goal to restore past image | 1a[abc] | 4.62 (1.59) | 5.89 (1.17) | 4.10 (1.43) |
| Goal to restore past values | 1a[ac] | 4.70 (1.65) | 5.64 (1.28) | 4.64 (1.58) |
| | 1b[ac] | 4.67 (1.35) | 5.29 (1.50) | 4.62 (1.27) |
| Past as future template | 1a[abc] | 3.81 (1.85) | 4.75 (1.35) | 2.76 (1.53) |
| | 1b[abc] | 4.21 (1.55) | 5.86 (0.98) | 4.35 (1.48) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined hope and nostalgia condition mean differed from the non-emotion condition mean

[c] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 3.9**

*Test statistics for the goal inference measures in Study 1a and 1b*

| Variable | Study | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| | Goal inferences: future-oriented goals | | | | | | | | | |
| Goal to campaign | 1a | 2.84 | .063 | .04 | 2.38 | .019 | .05 | 0.34 | .735 | .00 |
| Goal to make system fair | 1a | 0.07 | .936 | -.02 | 0.35 | .727 | .00 | -0.07 | .947 | .00 |
| Future template | 1a | 3.56 | .032 | .05 | 1.48 | .142 | .02 | -2.09 | .040 | .04 |
| | 1b | 22.18 | < .001 | .22 | -3.15 | .002 | .06 | -6.03 | < .001 | .19 |
| | Goal inferences: past-oriented goals | | | | | | | | | |
| Goal to restore past image | 1a | 13.18 | < .001 | .19 | 3.99 | < .001 | .14 | 3.56 | .001 | .11 |
| Goal to restore past values | 1a | 4.13 | .019 | .06 | 1.71 | .091 | .03 | 2.45 | .016 | .06 |
| | 1b | 3.58 | .030 | .03 | 1.56 | .120 | .02 | 2.26 | .026 | .03 |
| Past as future template | 1a | 12.74 | < .001 | .19 | 4.66 | < .001 | .18 | 2.33 | .022 | .05 |
| | 1b | 20.79 | < .001 | .21 | 2.93 | .004 | .05 | 5.90 | < .001 | .19 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 101/151 in Study 1a/1b, respectively

## STUDY 1A AND 1B: DISCUSSION

Study 1a and 1b (total $N = 258$) showed that, among liberal students, the addition of hope or nostalgia to a message calling for support does not lead to increases in support for the communicator compared to a non-emotion message. Nonetheless, we did find that people responded differently in terms of emotional experience and goal inference. Specifically,

people who read nostalgia messages, compared to those who read the hope or non-emotion messages, were more likely to experience some nostalgia, to perceive the past as unique and the current situation unchangeable, and to infer clear past-oriented goals over future-oriented ones. In contrast, the hope message did not produce a clear and consistent change across variables and studies. However, the participants did not very clearly perceive hope from the hopeful message, making it difficult to attribute this lack of an effect purely to the communicated emotion. Nevertheless, this finding also highlighted how similar a hope message is to a non-emotion one, and, conversely, how unique a nostalgia message is in its communication. Together, it seems that nostalgia has more potential for offering added value to political messages than hope, at least in the contexts and for the liberal samples of Study 1a and 1b.

Whilst we did not find consistent evidence for full *emotional contagion* of the emotions, both studies seem to suggest that reading hope and nostalgia messages can elicit some feelings associated with nostalgia. Both messages elicited feelings of nostalgia and bittersweetness, and the nostalgia message further elicited a focus on the past. In terms of cognitive appraisals associated with the experience of hope and nostalgia, we found some evidence that reading a nostalgia message can decrease appraisals associated with hope and increase those associated with nostalgia. The hope message did not significantly alter appraisals of the situation compared to the non-emotion message. Overall, these results are consistent with our hypothesis for nostalgia, but we did not find the expected negative effect on support. Furthermore, the resemblance of hope to nostalgia in some cases, and the null effects in others are not in line with our expectations regarding the contagion of hope.

In terms of *goal inference*, we found more evidence that, compared to a non-emotion message, both emotion messages strengthened the inference of wanting to engage in action (i.e., campaigning). However, whereas the nostalgia message clearly communicated goals related to going back to the system and values of old, the hope message was less clear in its communication of goals. Specifically, the hope message resembled the nostalgia message, although to a lesser extent, in Study 1a, and did not differentiate itself from the non-emotion message in terms of inferred goals in Study 1b. Furthermore, looking at the absolute values of the inference scores, it can be seen that both the future- and past-oriented goals were inferred to a similar extent. This lack of specificity of goals after reading the hope message is consistent with our hypothesising regarding hope's relation to goal inference, but we did not find the expected negative effect on support. Similarly, the increased inference of past-oriented goals after reading the nostalgia message is in line with our expectations, although we did not find the expected positive effect on support. However, as the potential negative effect of nostalgia contagion was also present to some extent, this may have cancelled out any positive effects of clear goal inference.

Concluding, whilst no effect on support was found, we did find that people engage differently with hope and, especially, nostalgia messages compared to the non-emotion message. As we are investigating the persuasive effects of hope and nostalgia in the political

domain, it is important to consider whether the found effects are the same when focusing on individuals from the other end of the political spectrum. Therefore, we ran another study investigating the effects of hope and nostalgia communication to a conservative audience.

## STUDY 2: METHODS

Study 2 examined the effects of the communication of hope and nostalgia on political support, emotional contagion, and goal inference on a conservative audience, using a tax on purchasing property known as the Stamp Duty Land Tax (SDLT; a tax on property purchases in the UK) as context.

**Participants and Design**

Study 2 used a similar between-subjects, experimental design as Studies 1a and 1b, with participants randomly being assigned to one of three conditions (Hope vs. Nostalgia vs. Non-emotion message). 251 English participants who self-identified as politically right-wing were recruited using Prolific Academic, where they received a small monetary reward for participating.

Based on quality checks, the sample was further reduced. Participants were included if they had spent at least 8 seconds on the (shorter) non-emotion message page or 25 seconds on the (longer) emotion message page, shared a similar opinion to the communicator (SDLT should decrease or be abolished completely), and successfully completed the instructional manipulation check. A check using recall of textual elements to condition assignment was not used, due to possible confusion arising from the wording of the items. Following these guidelines 176 participants remained in Study 2 ($N_{hope} = 59$, $N_{nostalgia} = 60$, $N_{Non-emotion} = 57$). Consistent with the sampling criteria, the sample indicated a right-wing political orientation ($M = 5.03$) but was not overly engaged with the topic ($M = 2.84$), scoring above and below the midpoint of their respective seven-point scales[13]. Further sample information can be found in the Supplementary Materials Chapter 3, section 1 in Appendix 2.

**Procedure**

The data was collected in January 2020. The procedure was virtually identical to Study 1b, with only the topic (SDLT and its negative consequences) and the group the representative was speaking for (Bright Blue, a conservative think tank and action group) being changed. The full list of variables can be found in the Supplementary Materials Chapter 3, section 2 in Appendix 2.

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[13] Participants indicated their political by self-describing their attitudes regarding the same three items as in Studies 1a and 1b ($\alpha = .81$). Similarly, the same three items regarding topic engagement as in Studies 1a and 1b were used, adapted to the topic of the SDLT ($\alpha = .90$). Participants indicated their attitude towards the SDLT on a scale ranging from 1 (The SDLT needs to be completely abolished) to 5 (The SDLT needs to be increased a lot).

**Manipulation and Measures**

Unless indicated otherwise, participants answered by indicating their agreement on Likert-type scales ranging from 1 (Not at all) to 7 (Very much), and for scales with multiple items, mean scores were calculated. The full manipulation texts, and a description of the instructional manipulation check can be found in the Supplementary Materials Chapter 3, sections 3 and 4 in Appendix 2.

*Manipulation*

All messages were made to appear as if they could have been posted on the website of Bright Blue. The manipulation message focused on a representative of the conservative action group Bright Blue who believed that SDLT was hampering people's ability to find a place to call their own, whilst at the same time forcing people to hand over their hard-earned money to the government. The messages followed the same structure as the messages used in Study 1b, only swapping out the topic.

*Checks*

Participants indicated whether the representative was *hopeful, nostalgic* or *did not mention* their emotional state, completed an instructional manipulation check (Oppenheimer et al., 2009), and had to indicate whether they had answered the questionnaire seriously. The check using textual recall regarding condition assignment was not used for the same reason as in the previous studies. Similar to before, the participants gave their perception of the emotional state of the representative using the same four items.

*Support*

Participants indicated their support for the representative using the same six items as in the previous studies ($\alpha = .90$).

*Emotional contagion*

**Experienced emotions and temporal focus.** Participants indicated their emotional state and temporal focus using the same seven items as in the previous studies. Similar to Study 1a, two scales assessing hopefulness and nostalgia could be made, but the deprivation item did not fit well with either scale and was kept as a single-item measure. Therefore, both the hope and nostalgia scales consisted of three items (hope: hopeful, concerned with the present, focused on the future, $\alpha = .73$; nostalgia: nostalgic, bittersweet, focused on the past, $\alpha = .77$).

**Emotion-specific appraisals.** Participants indicated their perception of the situation using the same six statements as the previous studies, but now the topic was *housing purchasing policies*, rather than the tuition fee system. Like before, these items were kept as single items.

### Goal inference

**Future- and past-oriented goals.** Participants indicated their perception of the goals that the representative could have using the same items as in Study 1b, with the topic now being *housing purchasing policies*, rather than the system of financing higher education. The future-oriented goal to introduce a new system, and the past-oriented goal to reintroduce the old system were measured using the same two items each, similar to the previous study ($r = .82$, $r = .92$, respectively). The goal to restore the old values was again kept as single-item measures.

## STUDY 2: RESULTS

The same analysis strategy with regards to ANOVAs, contrasts and outlier analysis was applied to Study 2. Four participants were marked as consistent outliers and removed. For each section, we first provide the main conclusions, then follow with the statistical analyses supporting those findings, and lastly give a full description of each statistical effect. The means and standard deviations for Study 2, and the associated test statistics can be found in Tables 3.10 through 3.16. Effect sizes are classified following the rules of thumb from Cohen (1988; small $R_{adj}^2/\eta_p^2 = .01$, medium $R_{adj}^2/\eta_p^2 = .06$, large $R_{adj}^2/\eta_p^2 = .14$).

**Manipulation checks**

Overall, we found that the manipulation largely worked as expected, and better than in the previous studies. Participants perceived the representative to be more past-focused and nostalgic after reading the nostalgic message, and more hopeful and future-focused after reading the hope message (although perceived hopefulness was also increased by the nostalgia message). This means that we can be quite confident in attributing the effects of both emotion messages to the communicated emotion in question.

Statistically, as seen from Table 3.11, for the perceived hopefulness of the representative, there was a significant medium overall, and significant medium overall emotion contrast effect but the hope versus nostalgia contrast effect was not significant. For the perceived future focus of the representative, there was a significant medium to large overall, and medium to large hope versus nostalgia contrast effect, but the overall emotion contrast effect was not significant. For the perceived nostalgia of the representative, there was a significant large overall, medium overall emotion contrast, and large hope versus nostalgia effect. For the perceived past focus of the representative, there was a significant large overall, and large hope versus nostalgia effect, but the overall emotion contrast effect was not significant.

As can be seen from the means in Table 3.10, participants perceived the representative as more hopeful after reading either of the emotion messages, though slightly more so after reading the hope message. Similarly, they perceived the representative as more future-focused after reading the hope message compared to the non-emotion message, and less future-focused after reading the nostalgia one. Conversely, participants perceived the representative as more nostalgic and past-focused after reading the nostalgia message

compared to the non-emotion message, and less so after reading the hope message. These findings suggest that the manipulation worked mostly as intended.

**Table 3.10**

*Means and standard deviations for the manipulation check in Study 2*

| Variable | Hope | Nostalgia | Non-emotion |
|---|---|---|---|
| Perceived hope[ab] | 6.11 (0.77) | 5.93 (0.96) | 5.34 (1.01) |
| Perceived nostalgia[abc] | 3.68 (1.50) | 6.10 (0.99) | 4.02 (1.38) |
| Perceived focus on the future[ac] | 6.28 (0.75) | 4.98 (1.33) | 5.41 (1.09) |
| Perceived focus on the past[ac] | 2.33 (1.23) | 4.56 (1.50) | 3.21 (1.38) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined hope and nostalgia condition mean differed from the non-emotion condition mean

[c] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 3.11**

*Test statistics for the manipulation checks in Study 2*

| | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|
| Variable | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Perceived hope | 10.72 | $< .001$ | .10 | 4.53 | $< .001$ | .11 | -1.01 | .314 | .01 |
| Perceived nostalgia | 58.47 | $< .001$ | .40 | 4.12 | $< .001$ | .09 | 9.96 | $< .001$ | .37 |
| Perceived focus on the future | 21.32 | $< .001$ | .19 | 1.25 | .213 | .01 | -6.42 | $< .001$ | .20 |
| Perceived focus on the past | 38.49 | $< .001$ | .31 | 1.04 | .302 | .01 | 8.70 | $< .001$ | .31 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 169

## Support

Overall, we found that both the hope and nostalgia messages did not affect political support for the communicator, similar to the previous studies. Statistically, none of the effects were significant ($M_{hope} = 4.52$, $SD_{hope} = 1.30$, $M_{nostalgia} = 4.86$, $SD_{nostalgia} = 1.13$, $M_{non-emotion} = 4.42$, $SD_{non-emotion} = 1.18$; all $p > .118$). Like before, we examined the effects on emotional contagion and goal inference to see if this null effect was due to the possible dual natures of hope and nostalgia communication cancelling each other out, or whether the communication of these two emotions did not affect conservative audiences.

## Emotional contagion

The findings on experienced hope and nostalgia and on the emotion-specific appraisals suggest that emotional contagion mostly occurs nostalgia communication. Indeed, nostalgia communication leads to emotional contagion both in regards to nostalgia experience, and changes to cognitive appraisals in line with nostalgia, whereas hope communication only marginally affects the experience of hope. These results are partially in line with our

hypotheses, and are similar to the previous studies, except for the changes in experienced hope as a consequence of the emotion messages.

### Experienced emotions

Overall, we found that emotional contagion for both hope and nostalgia communication seemed to occur, but that nostalgia communication, surprisingly, also elicited a feeling of hope, consistent with the finding regarding the perceived hope in representative. These findings are generally in line with our hypotheses regarding emotional contagion. Statistically, as seen from Table 3.14, for experienced hope, the overall emotion contrast was marginally significant, and small in size, but the other effects were not significant. For experienced nostalgia, there was a significant medium overall, and medium hope versus nostalgia contrast effect, but the overall emotion contrast effect was not significant. Similarly, for experienced deprivation, the overall and hope versus nostalgia contrast effects were significant, both being small to medium in size, but the overall emotion contrast effect was not significant.

As can be seen from the means in Table 3.13, participants felt more hopeful after reading either of the emotion messages than after the non-emotion message. Participants felt more deprived and nostalgic after reading the nostalgia message than after reading the non-emotion or hope messages. These findings suggest that emotional contagion is possible after hope and nostalgia communication

### Emotion-specific appraisals

Overall, we found that the nostalgia message was able to achieve changes in cognitive appraisals consistent with the emotion, whilst the hope message did not alter any cognitive appraisals. This is in line with the results of the previous studies and our predictions regarding the effects of communicated nostalgia when emotional contagion would occur.

We first consider the appraisals related to hope again. Statistically, as seen from Table 3.14, there was only a significant small overall, and small hope versus nostalgia contrast effect for the appraisal of the situation as an opportunity to change, but all other effects for the other appraisals were not significant. Considering the appraisals related to nostalgia, the overall, overall emotion contrast, and hope versus nostalgia effects for the appraisal of the past as distant were all significant, being medium to large, small to medium, and medium in size, respectively. Furthermore, there was a marginally significant small overall emotion contrast effect for the appraisal of the past irreversibly changed. The other effects for this appraisal, and the appraisal of the situation as unique were all not significant.

As can be seen from the means in Table 3.13, participants perceived the situation less as an opportunity to change after reading the nostalgia message than after reading the hope or non-emotion messages. Similarly, they perceived the past as more distant and irreversibly changed after reading the nostalgia message than after reading one of the other messages.

Together, this suggests that for the cognitive appraisal aspect of emotional contagion, only nostalgia communication led to emotional contagion.

**Table 3.13**

*Means and standard deviations for the emotional contagion measures in Study 2*

| Variable | Hope | Nostalgia | Non-emotion |
|---|---|---|---|
| *Emotional contagion: experienced emotions* | | | |
| Experienced hope | 4.54 (1.30) | 4.55 (1.09) | 4.24 (0.92) |
| Experienced nostalgia[ac] | 2.36 (1.16) | 3.43 (1.38) | 2.65 (1.10) |
| Experienced deprivation[ac] | 3.39 (1.79) | 4.37 (1.70) | 3.70 (1.76) |
| *Emotional contagion: appraisals* | | | |
| Situation as uncertain | 4.95 (1.19) | 4.93 (1.20) | 4.95 (1.48) |
| Situation as possible to change | 5.39 (1.19) | 5.10 (1.47) | 5.32 (1.21) |
| Situation as opportunity for change[ac] | 5.42 (1.15) | 4.90 (1.53) | 5.43 (1.13) |
| Past as unique | 3.67 (1.33) | 3.88 (1.37) | 3.62 (1.21) |
| Past as distant[abc] | 4.72 (1.51) | 5.69 (1.10) | 4.46 (1.32) |
| Past as irreversibly changed | 3.39 (1.51) | 3.73 (1.57) | 3.14 (1.34) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined hope and nostalgia condition mean differed from the non-emotion condition mean

[c] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 3.14**

*Test statistics for the emotional contagion measures in Study 2*

| Variable | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| *Emotional contagion: experienced emotions* | | | | | | | | | |
| Experienced hope | 1.42 | .245 | .01 | 1.68 | .094 | .02 | 0.05 | .962 | .00 |
| Experienced nostalgia | 11.94 | < .001 | .11 | 1.20 | .233 | .01 | 4.73 | < .001 | .12 |
| Experienced deprivation | 4.84 | .009 | .04 | 0.64 | .521 | .00 | 3.04 | .003 | .05 |
| *Emotional contagion: appraisals* | | | | | | | | | |
| Situation as uncertain | 0.00 | .997 | -.01 | -0.03 | .975 | .00 | -0.06 | .950 | .00 |
| Situation as possible to change | 0.77 | .466 | -.00 | -0.37 | .714 | .00 | -1.18 | .240 | .01 |
| Situation as change opportunity | 3.25 | .041 | .03 | -1.29 | .200 | .01 | -2.19 | .030 | .03 |
| Past as unique | 0.64 | .526 | -.00 | 0.70 | .484 | .00 | 0.89 | .377 | .01 |
| Past as distant | 14.06 | < .001 | .13 | 3.46 | .001 | .07 | 3.98 | < .001 | .09 |
| Past as irreversibly changed | 2.28 | .105 | .02 | 1.72 | .087 | .02 | 1.25 | .214 | .01 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 169

**Goal inference**

Overall, the results showed that participants who read the nostalgia message were less likely to infer a future-oriented goal, and more likely to infer past-oriented goals. Those who read the hope message inferred each of the three goals slightly more compared to the non-emotion

message. These findings are in line with the hypotheses regarding hope messaging lacking a clear path forward, and nostalgia messaging clearly communicating that the best option is to go back, and echo the results of the previous studies.

### *Future-oriented goal*

Overall, we found that nostalgia communication decreased the inference of the goal to create a new, innovative system, whereas hope communication slightly increased its inference. These results are in line with our hypotheses about nostalgia communicating past-oriented goals, and hope communicating more future-oriented goals, and with the results of the previous studies.

Statistically, as seen from Table 3.16, for the goal to create an innovative system, the overall, and hope versus nostalgia contrast effect were significant, both being medium to large in size. The overall emotion contrast effect was marginally significant, and small in size.

As can be seen from the means in Table 3.15, participants perceived this goal slightly more after reading the hope message compared to after reading the non-emotion one, but far less after reading the nostalgia message.

### *Past-oriented goals*

Overall, we found that both past-oriented goals were inferred more after reading either of the emotion messages, but mostly so after reading the nostalgia message. This is somewhat consistent with our hypotheses, although the increase for hope was not expected, but is similar to what we found in the previous studies.

Statistically, as seen from Table 3.16, for both the goal of returning to the old system, as well as the goal of wanting to restore old values, all effects were significant. For the goal of returning to the old system, the overall effect was large in size, the overall emotion effect was medium to large in size, and the hope versus nostalgia contrast effect was medium to large in size. For the goal of wanting to restore the old values, the overall effect was medium in size, and the contrasts were small to medium in size.

As can be seen from the means in Table 3.15, both emotion messages, but the nostalgia message particularly so, increased the inference of both goals compared to the non-emotion message.

**Table 3.15**

*Means and standard deviations for the goal inference measures in Study 2*

| Variable | Hope | Nostalgia | Non-emotion |
|---|---|---|---|
| Goal to create new system campaign[ac] | 4.54 (1.83) | 2.49 (1.44) | 4.02 (1.49) |
| Goal to remake old system[abc] | 4.35 (1.81) | 6.17 (1.02) | 3.92 (1.75) |
| Goal to restore past values[abc] | 4.93 (1.29) | 5.66 (1.31) | 4.50 (1.62) |

[a] Significant overall effect: all means were not equal

[b] Significant overall emotion contrast: combined hope and nostalgia condition mean differed from the non-emotion condition mean

[c] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 3.16**

*Test statistics for the goal inference measures in Study 2*

| Variable | Overall effect | | | Emotion vs non-emotion | | | Hope vs nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Goal to create new system campaign | 25.87 | < .001 | .23 | -1.95 | .053 | .02 | -6.91 | < .001 | .22 |
| Goal to remake old system | 34.02 | < .001 | .28 | 5.29 | < .001 | .14 | 6.28 | < .001 | .19 |
| Goal to restore past values | 9.98 | < .001 | .10 | 3.46 | .001 | .07 | 2.79 | .006 | .04 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 2 and 169

## STUDY 2: DISCUSSION

As in Study 1 with liberal participants, Study 2 with conservative participants suggested that the addition of hope or nostalgia to a message does not increase the willingness of an audience to support the communicator. However, it did fundamentally change how individuals engaged with the message in terms of emotional experiences and inferred goals. Specifically, the nostalgia message elicited feelings of nostalgia, made people appraise the situation in ways consistent with experienced nostalgia, and led people to infer that the communicator was past-oriented in their goals. Conversely, the hope message did not elicit such strong changes in emotional experience, appraisals, and goal inferences.

With regards to *emotional contagion*, we found clear evidence of emotional contagion for communicated nostalgia, with only the nostalgia message increasing the experiences of nostalgia and deprivation. This clearer distinction between hope and nostalgia is also seen in the manipulation check measures, where people perceived the representative to be more nostalgic only after reading the nostalgia message. As such, the findings of Study 2 are similar to Study 1a and 1b in terms of the greater effects being found for nostalgia indicators and the nostalgia message, but more clear-cut in terms of the hope message not acting similarly to the nostalgia message. Indeed, only the measures of hope of the two messages were more similar, with both messages eliciting, and leading to a greater perception of hope.

In terms of cognitive appraisals however, the evidence is less clear than in the previous studies. Only one appraisal associated with hope (the situation as an opportunity to change), and one appraisal associated with nostalgia (the past as distant) were affected by the messages, specifically, the nostalgia one, with the former appraisal being weakened, and the latter strengthened. Overall then, in this study, whilst there was more clear evidence of emotional contagion, especially for nostalgia, the expected connection between emotional experience and cognitive appraisals was not as evident. Furthermore, the lack of a negative effect of nostalgia contagion on support, whilst consistent with Studies 1a and 1b, does run counter to our hypotheses.

With regards to *goal inference*, a similar pattern of results as the previous studies can be seen. The inferences made after reading the hope message are again more similar to those made after reading the non-emotion message, whereas reading the nostalgia message clearly increased inferences about returning to the values and practices of old, whilst decreasing inferences about innovating the system. Furthermore, the slight changes that occurred after reading the hope message, increased inferences of both future-oriented and past-oriented goals, ultimately led to each goal being equally likely to be inferred. Overall then, consistent with our hypotheses, nostalgia communication increased clear, past-oriented goal inference, whereas hope communication led to an unclear picture of the goals of the communicator. However, counter to our hypotheses, the positive and negative effects, respectively, of these patterns of goal inference on support were not found.

The aim of Study 2 was to consider if the effects of hope and nostalgia communication on a conservative audience were similar to the effects on a liberal audience as tested in the previous studies. The found results suggest that this is indeed the case, with mostly the same effects being found, and the only differences being in terms of effect size.

## GENERAL DISCUSSION

The aim of the present research was to answer the question of whether the addition of hope and nostalgia to political messages would increase the support for such emotional communicators. Furthermore, we investigated how any changes in support could come about, applying insights from the emotions-as-social-information (EASI) model (Van Kleef, 2009, 2010; van Kleef, 2017; Van Kleef et al., 2010), and investigating whether the processes of emotional contagion of the communicated emotions (Hatfield et al., 1993) and goal inference (Fridlund, 1994; Van Kleef, 2009) did occur.

Across three studies (total $N = 430$), we found no evidence that the addition of hope and nostalgia to political messages increased political support for the communicator. However, we found (some) evidence for both emotional contagion and goal inference processes, although in both cases, these processes were most clearly seen for nostalgia. We found that individuals who read the nostalgia message felt similarly nostalgic and appraised their situation in more nostalgic terms compared to individuals who read the hope or non-emotion messages. Such results were not found for the hope message, except for one instance in Study

2, where both the hope and the nostalgia message elicited feelings of hope. However, different aspects of emotional contagion were affected differently in separate studies, meaning that, overall, the evidence for *emotional contagion* was not very strong.

Alternatively, we found stronger evidence for *goal* inference, with people who read the nostalgia message being more likely to infer the intentions of the communicator to be past-oriented, wanting to return the values and practices of old, rather than wanting to create a brand-new system, whereas the hope message led to mix of future-oriented and past-oriented goals. Overall, much like with the emotional contagion effects, the goal inference effects for communicated nostalgia were more pronounced than those for communicated hope. Interestingly, we found similar emotional contagion and goal inference effects across samples with opposing political ideologies, with the effects of nostalgia communication only being slightly more pronounced in the conservative sample. We discuss below how we interpret these findings, and what their implications are, in our view, for theory and research.

**How do individuals react to the addition of hope and nostalgia to political messages?**
Consistently across the three studies, we found that positive emotion communication did not meaningfully change support for the representative directly, although it did seem to affect how the message is processed and understood, especially in the case of nostalgia communication. This pattern of results is rather similar to those for the negative emotions of anger and disgust in Chapter 2, and raises the question of why mean-level political support did not change, despite these effects of the message.

As we have noted, it may be that nostalgia and hope communication have dual effects on support, with the effects on emotional contagion decreasing support and the effects on goal inferences increasing support for nostalgia, and vice versa for hope. For the current studies, Table 3.17 provides an overview of the correlations between the affected emotional contagion indicators and goal inferences, and the support for the representative in each study. In most cases, the affected measure was only influenced by the nostalgia message, and therefore we are limited to exploring this duality in the *indirect* effectiveness for nostalgia communication only. Together, these findings show that, indirectly, the communication of nostalgia may have a positive effect on political support, as it consistently increased the inference of wanting to return to the values that governed policy in the past, and also, in Study 2, increased the experience of both hope and nostalgia, all variables which significantly and positively correlate with support. However, we also found that nostalgia communication *decreased* appraisals of the situation as changeable or as an opportunity for change which are positively linked to support. It is possible that these opposing effects together explain why there was no effect on support, even though nostalgia communication had a host of effects on important antecedents of political support.

Another noteworthy finding is the reactions found in response to the hope message. We had anticipated a number of unique effects for hope, such as the people perceiving the situation to be more changeable, and having more future-focused, innovative goals. However,

we generally found that the hope message did not lead to any changes compared to the non-emotion message in some cases, or led to changes similar to the nostalgia message in others. For the former finding, it may be that the non-emotion condition acted more as a "hope-light" condition, and as such offers a rather conservative empirical comparison. Indeed, the call for support in the non-emotion condition presupposes that the situation should and could be improved to some extent, which is a key appraisal of hope (Chadwick, 2015; Cohen-Chen et al., 2017). For the latter finding, it may be due to overarching context given to the participants, with everybody being made aware that tuition fees and the SDLT did not exist a few decades ago. Because hope can predispose people to find the most effective route to achieve their goal (Snyder, 2002), looking back to the old system which they were told about could be the first option to consider, which may lead to the responses looking similar to the reactions to nostalgia communication.

Lastly, it is important to consider why goal inference was the more consistent and commonly found reaction rather than emotional contagion, for which we only found inconsistent evidence. Indeed, this is similar to what we found in Chapter 2, where anger and disgust communication also more so led to goal inferences rather than emotional contagion. Just as we noted there, the form we used for our manipulation may have been particularly conducive to more cognitive reactions such as goal inference, rather than emotional ones. Indeed, both the EASI model (van Kleef, 2017) and other theoretical models of persuasion (Petty & Cacioppo, 1986; Wagner & Petty, 2011) point out that situations in which there is ample time and motivation, which was the case in this study, cognitive processing may be preferred over heuristic processing, leading to a greater occurrence of goal inference. In other cases, where positive emotions are used to cue heuristic processing, emotional contagion may be more likely to occur.

**Table 3.17**

*Correlations between affected mediator variables and support for the representative*

|  |  | Study 1a | Study 1b | Study 2 |
|---|---|---|---|---|
| **Experienced Emotions** | Hope | .71*** | .41*** | **.56*** |
|  | Nostalgia | **.44*** | .14 | **.3*** |
|  | Bittersweet |  | **.02** |  |
|  | Deprivation |  | .18* | **.34*** |
|  | Past Focus |  | **-.18*** |  |
| **Emotion-specific Appraisals** | Uncertain | .05 | **.01** | .13 |
|  | Changeable | **.22*** | .17* | .13 |
|  | Opportunity | **.35*** | .31*** | **.23** |
|  | Distant | **.21** | **.01** | .4*** |
|  | Changed | .06 | **-.03** | **.07** |
|  | Campaign | **.2*** |  |  |
|  | Past image | **.14** |  |  |
| **Goal inferences** | New | **.73*** | **.23** | .05 |
|  | Old | **.51*** | **.05** | **.1** |
|  | Values | **.26** | **.26*** | **.38*** |

*Note.* * $p < .05$; ** $p < .01$; *** $p < .001$; bold indicates whether the variable was significantly affected by the manipulation in the study

**Theoretical and practical implications**

Our findings have a number of theoretical and practical implications. First, our findings indicate that hope and nostalgia communication consistently did not affect political support. This is in contrast with theory and research on the motivational potential of positive emotions, specifically hope and nostalgia (i.e., Cohen-Chen et al., 2019; Cohen-Chen & Van Zomeren, 2018; Sedikides et al., 2008, 2017; Sedikides & Wildschut, 2016; 2018; Stephan et al., 2015; but see Cohen-Chen & Van Zomeren; 2018; Van Zomeren et al., 2019, for why hope may not directly motivate), yet dovetails with our findings from Chapter 2 suggesting a similar lack of effect of the communication of negative emotions such as anger and disgust. As such, our findings imply that we should be careful in extrapolating ideas about the motivational power of emotions to the realm of interpersonal political communication: People may certainly interpret different meanings behind emotion messages, but this does not guarantee a different emotional experience or an altered course of action (e.g., increased support). More research is needed to understand the complexity of interpretations involved.

A second implication is that communicating positive emotions is certainly not inconsequential, but one cannot rely on the simple communication of a single emotion to lead to desirable outcomes. For instance, we found that the nostalgia message leads to greater inferences of wanting to return the systems and values of old but can make the present situation seen as less changeable. However, as shown in Table 3.17, and in line with our predictions on the dual effects of hope and nostalgia communication, the different effects may both positively and negatively relate to support. In this case, the decrease in the appraisal that change can occur is negatively related to support, whilst the inferred goal to restore

values is positively related to support. As such, communicators who wish to effectively use hope and nostalgia in their messages may need to supplement their messages to counteract the negative effects of the communication of these emotions. For instance, highlighting the opportunity for change in a nostalgia message may be crucial supplements to these messages in order for them to lead to desirable effects, such as increasing political support for the communicator.

Lastly, our studies highlight, much like with our findings on the communication of anger and disgust in Chapter 2, that liberals and conservative respond very similarly to the communication of hope and nostalgia. This findings run counter to a large body of research which highlights the differences between these two groups (e.g., in moral values; Graham et al; 2009; in emotional experience; Inbar et al; 2009; in temporal orientation; Robinson et al., 2015), and suggests that, in highly contextualised settings like the ones used in the studies reported in the current and the previous chapter, the theoretically and empirically found differences between these groups may be less impactful than assumed (see also Frimer et al., 2013, highlighting how the moral differences of the groups are not as consequential in political contexts)

**Future directions**

The present research opens up a number of avenues for future research. First, the competing positive and negative effects of hope and nostalgia communication can be further investigated. Notably, research into the effectiveness of supplementing messages with additional information that counteracts the negative changes (i.e., those that negatively relate to support) of the communication of hope and nostalgia may be especially useful. As we noted in our description of nostalgia (Sedikides et al; 2008; Van Tilburg, 2019), and as we have seen in our findings and in Table 3.17, nostalgia communication has both positive effects (increasing the inference of the goal of wanting to restore old values) and negative effects (decreasing the perception that there is an opportunity for change). As such, future research could investigate the effects of adding information highlighting how change could happen (i.e., by describing which processes and legislative bodies can be changed in what manner) to a nostalgic message in order to see if this leads to positive effects on political support. Similarly, from our description of hope (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019), and from previous research on the need for clear efficacy beliefs and plans in order for hope to achieve change (Cohen-Chen & Van Zomeren, 2018; Van Zomeren et al, 2019), we know that hope communication may suffer from being too vague, something we also found in our studies when examining goal inferences. Therefore, future research could add information on concrete plans the communicator may have to see if the hope communication could lead to positive effects on political support. Such studies into how to supplement emotional messages with distinct information may prove fruitful in discovering when emotional messages are maximally effective.

Alternatively, future research could focus on how to strengthen the experimental elicitation of hope and nostalgia via their communication, instead of relying on the more cognitive reactions that we found in our studies. Indeed, the experience of hope and nostalgia was positively related to support (see Table 3.17). One way of doing this would be a focus on different contexts of political communication, such as in face-to-face or mass communication contexts (i.e., town halls or political rallies). Research has shown that a shared in-group between the listeners and the communicator (van der Schalk et al., 2011), can help with the elicitation of an emotional contagion response. As such, a manipulation in the form of a short video of a spokesperson who closely resembles the intended audience may be more successful in eliciting emotions, which may subsequently lead to an increase in support.

**Strengths and limitations**

Our research design had a number of strengths and limitations. First, as far as we know, we are the first to directly compare hope and nostalgia communication as possible agents for political change. Whilst previous studies have looked at hope and nostalgia experience and their individual contributions to people's perception of political problems (i.e., Cohen-Chen et al., 2015; Cohen-Chen et al; 2019; Smeekes et al., 2018; Smeekes & Verkuyten, 2015), we believe that these two emotions can have a similar motivational power, even if that motivation stems from different sources, namely a subjective experience of changeability versus a clear vision of what end state should be reached. We hope that this comparison inspires future research that further delves into the potential similarities between nostalgia and hope.

Second, we employed a conservative experimental set-up, manipulating emotion communication solely through text, written by an unknown representative of a group. As noted, this design may be more conducive to cognitive reflection rather than emotional contagion, but also allow for a rather precise interpretation of the obtained effects. Indeed, in real life, there are many instances of political communication that are far removed from the used set-up, where well-known figures speak live to large gatherings, and as a consequence, many confounding variables abound. However, whilst our current set-up cannot be considered as indicative of how people will always respond to political communication, we believe it does capture a particular essence of many instances of real-life political communication. Many political actors take to social media to write up their responses to both unfolding and existing issues, and emotional language is used on such platforms (Brady et al., 2017; 2018). As such, we believe that, whilst conservative and not indicative of all possible reactions to all forms of emotional political communication, our designs are grounded in both theory and reality and the results gained from them are important in understanding how people's political choices are affected by those seeking to bring change.

Third, we experienced some unintended effects of our manipulation. Indeed, whilst the nostalgia message did relatively consistently communicate nostalgia, it also was perceived

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as hopeful at times. Furthermore, and of greater concern, the hope message was not uniquely understood as hopeful and to some extent even nostalgic at times. Although these are empirical findings as well, rather than problems with the manipulation itself, this makes it more difficult to interpret the effects of the communication of these two emotions when compared against one another. Future research could improve upon these manipulations in order to get a clearer picture of the unique effects of hope communication. For instance, they could employ a more neutral non-emotion condition where there is no explicit call for support. Furthermore, to lessen the similarity between the hope and nostalgia condition, they could focus on an issue or topic that is much less recent (such as policies implemented 50 or more years ago), and where the ideal state of things is not in the relatively close past, so that envisioning a new, innovative system is also a viable option.

## CONCLUSION

The present research aimed to answer the question of whether and how the addition of hope or nostalgia to a political call for support would lead to changes in support for the communicator. Through systematically varying the communicated emotions in political messages, we found that, across political ideology, people were not more likely to support either a hopeful or nostalgic communicator, and that these communicated emotions primarily led to actively inferring goals rather than eliciting similar emotions. As such, and in line with the findings of Chapter 2 on the effects of anger and disgust communication, we found that communicating nostalgia or hope in the context of political messaging does not blindly sway people into supporting an emotional communicator, but rather cognitively activates them to consider why these emotions are communicated. This opens the way for future research on how mixing emotion with explicit goal and situation information may help hopeful and nostalgic communicators to increase political support for their agendas.

# Chapter 4

Does *pathos* divide? Exploring the polarising effects of communicating anger, disgust, nostalgia, and hope

# ABSTRACT

The present research focuses on how emotion communication could affect political polarisation, which may be an indirect pathway to increasing political support by turning people away from political alternatives. We conducted two experiments (total $N = 535$) among opposition voters in the Netherlands and Scotland, in which we investigated what the effects were of reading anger, disgust, hope, or nostalgia messages, ostensibly written by a fellow opposition voter, on affective and perceived cognitive polarisation. We also examined the effects of these messages on emotional contagion and goal inference, possible mechanisms by which emotion communication could affect polarisation. We found that these messages did not affect polarisation, but did affect emotional contagion and goal inference, although inconsistently across research contexts. In Study 1, we found a distinct emotional contagion effect for the disgust message (increasing anger and disgust, decreasing hope and nostalgia), and a distinct goal inference effect for the nostalgia message (milder towards the government compared to the other messages). In Study 2, the angry message played a more prominent role in the emotional contagion effect, and the distinctive effects of disgust and nostalgia were not present, in favour of a more general positive versus negative emotion message effect (anger and disgust messages leading to more extreme inferences, hope and nostalgia messages to milder ones). We discuss the implications of these results, which suggest that how specific emotions affect political sympathisers may be context- and topic-dependent.

Research has shown that over the last few years, many western societies have become increasingly politically polarised (Abramowitz & Webster, 2016; Pew, 2014). At the same time, political pundits have started to wonder whether we have entered a post-truth political age, where emotions have superseded rational thought and argumentation in political contexts (Alcorn, 2014; Davies, 2016; Dunt, 2016). In the current chapter, we consider whether these two events might be related, and whether emotion communication could play a role in the increase in polarisation in western societies. Indeed, previous research has shown that emotion and polarisation are tightly linked (Prinz et al., 2021). With this focus on polarisation, we may also gain additional insight on how campaigns that run on emotional platforms and sometimes presented demonstrably false claims could be successful (the Brexit Leave Campaign, Donald Trump's bid for the presidency). Although our previous work (see Chapters 3 and 4) found no evidence that emotion communication could increase support for the communicator directly, by studying its effects on polarisation we explore how emotion communication may indirectly lead to greater support for a communicator by driving people away from political alternatives. Overall then, the main focus of this chapter is to examine *whether*, and if so *how,* emotion communication may lead to greater perceived polarisation in society.

Extending Chapters 2 and 3 of this thesis, we report two experimental studies that test whether and how the communication of anger, disgust, hope, and nostalgia in political speech affects polarisation (Simon et al., 2019), and negative perceptions on the future cooperation between different parties. As in previous chapters, we utilise the *emotions-as-social-information* (EASI) model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010) to examine whether and how any changes in perceived polarisation may come about, namely through *emotional contagion* (Hatfield et al., 1993; 2014), or *goal inference* processes (Fridlund, 1994; Van Kleef, 2009). In both studies, which were run during election times, we had opposition voters read emotion messages criticising the government's handling of a key election issue. Specifically, Study 1 focused on the Dutch government's handling of the corona pandemic, and Study 2 focused on the Scottish government's intention to leave the United Kingdom. We believed these contexts would strengthen any effects of our manipulations, as polarisation is focused on the relation between two groups, and this way we had a clear in-group (opposition voters) reading about a clear, powerful out-group (the government). Due to the multi-party structure of these nations, we also had samples that contained both liberal and conservative individuals, but based on the findings of Chapter 2 and 3 we expected no difference between these groups with respect to their responses to anger, disgust, hope, and nostalgia communication.

**Different forms of polarisation**
In this Chapter, we focus on whether the communication of emotions can increase polarisation. Polarisation can generally be split into two forms (Simon et al., 2019; Wilson et al., 2020): *Affective* and *cognitive* polarisation. We investigate the effects of emotion

communication on both of these forms, but our main focus is on affective polarisation, as the link between this form of polarisation and emotion communication seems more clear-cut. This is because affective polarisation focuses on the discrepancy between how people subjectively *feel* regarding two opposite groups, in this case the government and the opposition. For instance, high levels of affective polarisation coincide with the attribution of more negative stereotypes to the supporters of the other group, and with reluctance to be close with people of the other group (Iyengar et al., 2012; 2019; Iyengar & Westwood; 2015).

By contrast, cognitive polarisation focuses on the discrepancy between the intentions, actions and ideals of two different groups (Wilson et al., 2020). High levels of cognitive polarisation would mean that there would be no conceivable way of compromise between groups, and only one side would eventually be able to move ahead with their plans. In our studies, we focus on the notion of *perceived* cognitive polarisation. Indeed, this perceived polarisation is sometimes called false polarisation (Westfall et al., 2015), as ideas about how far apart the ideals of different political groups lie are (sometimes) overestimated. Whereas the communication of anger and disgust seems associated most clearly with perceptions of affective polarisation, little is known about how the communication of our studied negative and positive emotions is related to perceptions of cognitive polarisation. As such, the current studies embark on a new line of research that is more explorative than the research in Chapters 2 and 3.

Returning to our main research question, we thus conceptualise polarisation in two forms: *affective* and *perceived cognitive polarisation*. Specifically, for the chosen contexts and opposition voter samples, we examine whether communicating anger, disgust, nostalgia, or hope can function to paint an out-group in power (the government) in a negative light, be it as a rights-violating, evil entity (increasing affective polarisation), or as an organisation with goals and intentions different from the in-group (increasing perceived cognitive polarisation).

**How communicated anger, disgust, hope, and nostalgia may affect political polarisation**
Examining the relevant appraisals, subjective experiences and behavioural intentions, the three core aspects of emotions as outlined in the emotions-as-a-syndrome perspective (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985), of anger, disgust, hope, and nostalgia can help us understand how they may link to both forms of polarisation in at least two ways.

First, unlike hope and nostalgia, anger and disgust are closely related to value violations and person attributions (see Chapter 2). Specifically, people feel angry when a different party violates ideals they or their group hold close (Kuppens et al., 2007; Roseman, 2001; Smith & Lazarus, 1993; Van Mechelen & Hennes, 2009). Similarly, disgust is felt when being too close to an object or group that is considered as wrong (Lazarus, 1991; Roseman, 2001; Rozin et al., 1999). In political contexts, these emotions can be applied to the actions of other groups, such as political parties during campaigns, especially if the other group could easily introduce policy changes. A communicator can perceive a group or individual as violating

their rights by introducing or suggesting certain policy changes, and may subsequently speak about that group or individual in an angry manner. Similarly, certain policy changes or directions can be seen as evil or wrong, and as such, a communicator can speak about the person or group in a disgusted manner. As such, both anger and disgust communication can serve to highlight how a powerful out-group is wrong, evil, and holds vastly different values and ideals than the communicator's in-group. This focus on the difference in reputation between the groups fits with the conceptualisation of affective polarisation, and as such, we believe that anger and disgust communication may be used to increase perceived affective polarisation (at least compared to nostalgia and hope).

Second, it is less clear whether and how hope and nostalgia could increase polarisation. One pathway is that both hope and nostalgia focus on the temporal dimension of political policies, without making too much reference to the people behind the plotted course (see Chapter 3). Hope is a future-oriented emotion that is felt in times when the present raises concern, but a belief exists that, through action, positive change can be achieved (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019). Nostalgia on the other hand is past-oriented, a wistful longing to go back to a time where the situation was not perceived as concerning as it is now (Sedikides et al., 2008; Van Tilburg et al., 2019). In political contexts, these emotions can focus on the current problems that a society faces, and on the policy plans of the communicator. A communicator using hope would aim to establish a movement that through innovative design changes the situation into a more positive one, whereas the communicator using nostalgia would focus on reversing policy changes in order to return to a situation that is less concerning. Anger and disgust focus more so on the existing actions and status of the parties, rather than their specific future plans regarding policy. As such, the communication of hope or nostalgia may increase perceived cognitive polarisation compared to the communication of anger or disgust, as these messages highlight the discrepancy between the speaker's intended policy direction and their opponents' direction. However, this polarising effect is rooted in the assumption that the audience of the emotion message, on their end, intuitively compare the described course of the speaker with the opponents' course, which does not necessarily need to happen. As a result, we can only speculate about the effects of hope and nostalgia communication on perceived cognitive polarisation, and therefore have more confidence in our hypothesis on the effects of anger and disgust on affective polarisation.

**The process from emotion communication to polarisation**
Independent of whether emotion communication has polarising effects, we connect our rationale to the emotions-as-social-information (EASI) model (Van Kleef, 2009, 2010; 2017; Van Kleef et al., 2010), which also guided our work on the effects of the communication of the same emotions on political support in the previous chapters. We specifically use the idea from this model that there are two general ways of how the communication of emotion can impact people.

First, the communication of emotion can elicit *emotional experiences* in the audience. EASI encompasses a number of emotion reactions, but we specifically focus on the elicitation of the same emotion, which we refer to as *emotional contagion* (Hatfield et al., 1993; 2014). This would mean that people who are exposed to an anger, disgust, hope or nostalgia message would themselves also feel angry, disgusted, hopeful or nostalgic, respectively. Following from the perspective that emotions can be conceptualised as an interconnected syndrome of subjective experience, cognitive appraisals, and behavioural tendencies (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985), we would expect that people's thoughts regarding and behaviours towards the target of the elicited emotion would change accordingly. For instance, someone who experiences anger after hearing an anger message would also appraise the situation they are in as one where an out-group has intentionally violated their rights, and would like to confront them about this. This is why we included measures in the studies to come that reflect the cognitive appraisal associated with the specific emotions under study in addition to measuring the experience of the emotion itself. Specifically, we included measures on the perception of the out-group as misguided right violators (anger appraisal), or as immoral (disgust appraisal), and of a need for a government that takes action to move towards a better future (hope appraisal), or one that tries to return to a past that is currently very far away (nostalgia appraisal).

Our previous work on the communication of these four emotions did not find much evidence for such contagion across the board (but see Chapter 3 for some evidence for this for nostalgia) — instead, this work found more support for the second type of process suggested by the EASI model, namely that people act as "lay psychologists" and try to understand how the communicated emotions in the message came about, and from there, what the goals of the sender are (Fridlund, 1994; Van Kleef, 2009). Based on these goal inferences, people can then act in a manner that fits with their own preferences. In the case of addressing an audience that already shares some similar intentions, the communicated goals can make the preferences for action that the audience has salient. Indeed, if these communicated goals and the existing goals of the audience match, the message may be more persuasive. Furthermore, if these matching goals are seen as dissimilar from those of an opponent, this could make a message that attacks that opponent more effective. With regards to the emotions examined in the present research, we measured inferences of goals that relate to how to deal with a (bad) government and the (temporal) direction of a (new) government's plans.

Lastly, we can connect these two pathways to polarisation with the different emotions to consider how the communication of anger, disgust, hope, and nostalgia may affect affective and perceived cognitive polarisation. As affective polarisation relates to the discrepancy between one's affective evaluation of the in-group and the out-group, it is most likely to be affected if participants actually experience anger and disgust, the emotions focused on the status of the out-group, in response to anger and disgust communication. This would make the out-group actually feel more negative compared to the in-group. Following from that, we

thus believe that emotional contagion is the most likely pathway through which anger and disgust communication can increase affective polarisation.

Conversely, perceived cognitive polarisation relates to the perceived differences in the intentions and goals of two groups. As such, we believe that perceived cognitive polarisation is most likely affected if participants are aware of the policy goals of the communicator, so that they can compare this to (their perceptions of) the goals of the out-group. This would be especially effective for hope and nostalgia communication, as these emotions may lead to clear inferences regarding the policy plans of the communicator. Following from this, we thus believe that goal inference is the most effective pathway through which hope and nostalgia communication can increase perceived cognitive polarisation.

**Overview and hypotheses**

In two experiments, we investigated whether and how the communication of anger, disgust, hope, and nostalgia in political messages increases affective and perceived cognition polarisation among opposition voters in two different national contexts (Netherlands and Scotland). Figure 4.1 at the end of this section provides an overview of our conceptual model that guides our research and predictions.

If *emotional contagion* were to occur, we believe anger and disgust communication may be particularly effective in increasing affective polarisation through the increased experience of anger and disgust and the changed appraisals related to these emotions (seeing the government as a misguided [anger] or evil [disgust] entity). Conversely, if *goal inference* were to occur, we believe hope and nostalgia communication may be particularly effective in increasing perceived cognitive polarisation through the increase in inferences of clear policy goals associated with hope and nostalgia (moving forward over the problems of today to focus on a broad set of issues [hope], or reversing made policies to go back to successful policies of the past [nostalgia]).

We tested our predictions in two experiments run during election times, presenting Dutch (Study 1) and Scottish (Study 2) opposition voters with experimentally manipulated political messages criticising the government handling of a key election issue (the corona pandemic in Study 1, Scottish Independence in Study 2). Within the political messages, we systematically varied whether the communicator used anger, disgust, hope or nostalgia. We then measured affective and perceived cognitive polarisation, experienced anger, disgust, hope, and nostalgia, appraisals of the situation, inferred goals, and perceptions of the communicator. With this design, we could systematically examine the question of the whether and how the communication of anger, disgust, hope, and nostalgia affects polarisation in society.

**Figure 4.1**

*Conceptual model of how anger, disgust, hope, and nostalgia communication may affect political polarisation*
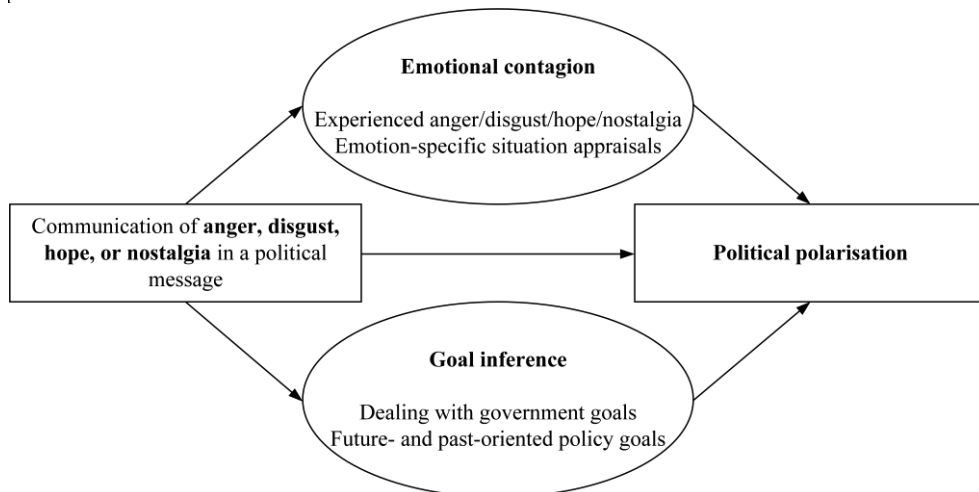


## STUDY 1: METHODS

Study 1 investigated the effects of anger, disgust, hope, and nostalgia communication on affective and perceived cognitive polarisation, emotional contagion, and goal inference amongst Dutch opposition voters (both liberal and conservative) who read a critique of the Dutch government's handling of the corona pandemic.

### Participants and Design

Study 1 used a between-subjects four condition design (Anger vs. Disgust vs. Hope vs. Nostalgia), with participants randomly being assigned to one of the four conditions. Participants were collected using the survey platform PanelInzicht, and those who finished the questionnaire received a small monetary reward for participating in the study, provided they did not demonstrably fake honest participation. We initially sampled 399 Dutch opposition party voters, but after analysis, 59 responses were resampled, as it was unclear whether these people took part seriously. Additionally, 50 participants started, but did not complete the survey, and their responses were not used for further analysis. Lastly, 17 participants indicated that their data should not be used for analysis. As such, 382 participants remained for further sample reduction and analysis.

Based on a number of quality checks, the sample was further reduced. If participants spent less than 25 seconds on the manipulation message page, indicated the wrong subject of the study in the instructional manipulation check, or generally agreed with the government's handling of the pandemic, they were removed from the sample. This left 231 individuals for analysis ($N_{anger} = 55$, $N_{disgust} = 65$, $N_{Hope} = 60$, $N_{Nostalgia} = 51$). Analysis of the sample's political

orientation[14] showed that, on average, the sample was politically centred, but spanning the full range ($M$ = 3.65, $SD$ = 1.46, $min$ = 1, $max$ = 7). Visual inspection of the data reveals a relatively uniform distribution, with slightly more left-wing participants. This distribution generally follows the political ideology of the Dutch opposition, where most left-wing parties are in the opposition together with more extreme right-wing parties. Information regarding the samples' gender and age distribution can be found in the Supplementary Materials Chapter 4, Section 1 in Appendix 3.

**Procedure**

The data was collected in March 2021, a few days before the Dutch national elections. After giving consent, people indicated which party they would likely vote for (participants who indicated any of the four coalition parties were removed, leaving opposition voters with divergent political backgrounds), provided demographic information, and then were randomly assigned to one of the four conditions. In each condition, the participants read a short message in which the writer opined that the government's handling of the corona pandemic was lacking, and that it was time for a new wind in Dutch politics. After reading the opinion piece, participants completed the questionnaire containing measures of their emotional state, appraisals regarding the current political situation, goals they believed the writer to have, and affective and perceived cognitive polarisation. Several additional items were measured but are not included here (See Supplementary Materials Chapter 4, Section 2 in Appendix 3). Participants then completed a number of checks used for further examination of the sample and data reduction. Lastly, participants were debriefed and thanked for their participation.

**Manipulation and Measures**

Participants answered by indicating their agreement on a Likert-type scale ranging from 1 (Completely disagree) to 7 (Completely agree), and mean scores were calculated. The full manipulation texts and a description of the instructional manipulation check can be found in the Supplementary Materials Chapter 4, sections 3 and 4 in Appendix 3. All text in the questionnaire was in Dutch, but we use the English translation for the measures below.

*Manipulation*

In all conditions, the messages followed the same three-paragraph structure. The manipulation focused mainly on the arguments used and the explicit statement of the emotional state of the writer. The writer was not identified, and no affiliation with any group was mentioned, as we aimed to create a message that could be supported by all opposition

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[14] Participants indicated their political orientation by describing themselves as 1 (Very Left-wing/Progressive) to 7 (Very Right-wing/Conservative) using the following three items after the stem: *regarding economic issues I would describe myself, regarding social issues I would describe myself, generally I would describe myself* ($\alpha$ = .92).

voters, regardless of their political identity or any other existing beliefs regarding the pandemic.

In the first paragraph, the writer juxtaposed the pandemic with the, in their opinion, failing response of the government. This was followed by an emotion-specific argument for a new government, with the anger and disgust messages outlining how the current government is lacking in leadership, and the hope and nostalgia messages envisioning different ways out (tackling the emerging problems the pandemic had laid bare versus going back to normal) of the crisis with a new government. The second paragraph further explained the argument, focusing on the toll that a year in lockdown had taken on people, and how the current government's strategy failed in addressing the problem and assuring the citizens. The last paragraph was a short call to action, urging people to go and vote. Interspersed in all paragraphs were explicit mentions of the writer's emotional state, and arguments and comparison were written in emotion-specific ways to further communicate the emotion in the message (the government attacking the people, or letting them rot in the anger and disgust messages, and clear focus on the future or the past in the hope and nostalgia messages, respectively)[15].

### *Quality checks*

As quality checks, participants indicated whether they agreed with the general message of the writer, or whether they disagreed due to preferring the government's approach, a different approach, or because the tone of the message was not appropriate. They then indicated their perception of the writer's emotional state using four single-item measures: *After reading the text, I believe that the writer of the message… is angry, is disgusted, is hopeful,* and *is nostalgic.* We also asked participants to indicate which emotion the writer explicitly expressed in the message, providing the same options (*anger, disgust, hope,* and *nostalgia*). The check asking for the recall of the specific showed that people did sometimes attribute a different emotion to the message. Because it is not unreasonable to assume people expect the writer to experience a number of emotions, we did not use this check for further data reduction. Lastly, participants completed an instructional manipulation check (Oppenheimer et al., 2009), indicated whether their data should be used, and whether it was allowed to be shared.

### *Polarisation*

Affective polarisation was measured using feeling thermometers, with participants reacting to the following statements on a seven-point Likert-type scale ranging from 1 (Very cold) to

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[15] Unlike in Chapters 2 and 3, the communicator did not explicitly moralise the issue by describing it as fundamentally ethical one. Nevertheless, the messages used in this chapter still use much of the same language as the those of those previous chapters, and deal with morality in more contextualised terms (lack of freedom and rights, dehumanising effects of lockdowns, lack of vision). As such, we believe we can compare the effects of each emotion message across the chapters.

7 (Very warm): *my feelings towards the following groups are as follows… the government,* and *the opposition*. In line with previous work on affective polarisation (Iyengar et al., 2012; 2019; Simon et al., 2019), a difference score was calculated by subtracting the score for the opposition from the score for the government. As a result, this scale ranged from -6 (very cold feelings towards the government and very warm feelings towards the opposition) to 6 (vice versa).

Perceived cognitive polarisation was measured using two items: *After reading the text, I am of the opinion that… there are a lot of commonalities between the government parties and the opposition parties*, and *in most discussions, the government parties and the opposition parties are polar opposites.* These two items were kept as separate measures, as the correlation between them was not sufficiently high enough to justify merging them ($r = -.23$, $p < .001$).

### *Emotional contagion*

**Experienced emotions.** Participants indicated their emotional state using the following six items on a seven-point Likert-type scale ranging from 1 (not at all) to 7 (Very much): *After reading the text, I feel… anger, outrage*, *disgust, repulsion, hope*, and *nostalgia*. Furthermore, they also indicated how focused they felt on either the past or the future by filling in one item (*After reading the text, I feel focused on…*) a seven-point Likert-type scale ranging from 1 (The past) to 7 (The future). The two anger items (anger and outrage: $r = .77$, $p < .001$), as well as the two disgust items (disgust and repulsion: $r = .91$, $p < .001$) were merged into two measures for anger and disgust.

**Appraisals.** Based on our previously used items (see Chapters 2 and 3) and research into the appraisals related to anger, disgust, hope, and nostalgia (e.g., Cohen-Chen et al., 2017; Rozin et al., 1999; Van Mechelen & Hennes, 2009; Van Tilburg et al., 2019), we self-generated four, single-item appraisal items (one per emotion) for participants to indicate their appraisals of the current situation: *After reading the text, I am of the opinion that… the current government is violating our rights, the current government consists of evil and incorrigible people, the future can become better than ever as long as we take action*, and *it is impossible to return to better times we had in the past*.

### *Goal inference*

For the goal inference items, we self-generated four, single-item goal items that fit with the description of the behavioural consequences of anger, disgust, hope, and nostalgia (e.g., Chadwick et al, 2015; Roseman, 2001; Rozin, 1993; Sedikides et al., 2008; see also Chapters 2 and 3), and that fit with the context of our study: *I believe that the writer… wants to see reparations from the current government, wants the current government to be completely removed, wants a government that focuses on tackling a broad set of issues*, and *wants a government that focuses on returning to a time like before the corona pandemic*.

# STUDY 1: RESULTS

One-way ANOVAs with three follow-up contrasts were run to examine the effects of the emotion messages. The first contrast tested the effects of reading a negative (anger or disgust) message versus reading a positive (hope or nostalgia) message, the second tested the effects of reading the anger versus reading the disgust message, and the third contrast tested the effects of reading a hope versus a nostalgia message. Univariate outliers were checked using boxplots. Only one participant was found to be a consistent outlier (for three variables) but was not removed from the dataset as their exclusion did not change the results in a meaningful way. For each section, we first provide the main conclusions, then follow with the statistical analyses supporting those findings, and lastly give a full description of each statistical effect. The means and standard deviations, and the associated test statistics can be found in Tables 4.1 through 4.8. Effect sizes are classified following the rules of thumb from Cohen (1988; small $R_{adj}^2/\eta_p^2 = .01$, medium $R_{adj}^2/\eta_p^2 = .06$, large $R_{adj}^2/\eta_p^2 = .14$).

**Manipulation checks**

Overall, the manipulation was only partially successful in communicating each emotion uniquely. Particularly nostalgia was clearly communicated by the nostalgia message compared to the other messages. Anger, disgust, and hope were more so communicated by the general valence of the message, although some pointers suggest that hope and disgust could be distinguished from the other emotion of the same valence. This means we cannot be fully confident in attributing the effect of each message specifically to the communicated emotion, except for the effects of the nostalgia message.

Statistically, as seen from Table 4.2, there was a significant large overall and significant large positive versus negative contrast effect for perceived anger, perceived disgust, and for perceived hope. For perceived nostalgia, there was a significant medium overall and a significant medium hope versus nostalgia effect. Lastly, there was a significant large overall and large hope versus nostalgia contrast effect for temporal orientation.

As can be seen from the means in Table 4.1, individuals who read the anger or disgust message were more likely to perceive the writer as angry and disgusted than those who read the hope or nostalgia message, but a non-significant trend suggested that the disgust message was also perceived more clearly as disgust than anger. For perceived hopefulness, individuals who read the hope or nostalgia message were more likely to perceive the writer as hopeful than those who read the anger or disgust message, but trends again suggested that the hope message was recognised more so as hope than nostalgia. Nostalgia was perceived significantly more after reading the nostalgia message compared to the other three messages. People also perceived the writer as more focused on the past after reading the nostalgia message, and more focused on the future after reading the hope one, with the anger and disgust messages falling in the middle. In sum, we can only be slightly confident that any

effects found for the messages are directly due to the communicated emotion, except for the effects of communicated nostalgia.

**Table 4.1**

*Means and standard deviations for the manipulation checks in Study 1*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Perceived anger of writer[ab] | 6.07 (1.17) | 5.91 (1.45) | 4.80 (1.61) | 4.98 (1.35) |
| Perceived disgust of writer[ab] | 5.56 (1.37) | 6.00 (1.39) | 4.08 (1.77) | 4.31 (1.33) |
| Perceived hopefulness of writer[ab] | 3.36 (1.70) | 2.95 (1.55) | 4.68 (1.74) | 4.18 (1.52) |
| Perceived nostalgia of writer[ad] | 4.31 (1.36) | 4.08 (1.73) | 3.90 (1.37) | 5.02 (1.56) |
| Perceived temporal orientation of writer[ad] | 4.40 (1.89) | 4.02 (1.87) | 5.15 (1.69) | 3.10 (1.68) |

[a] Significant overall effect: all means were not equal

[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.2**

*Test statistics for the manipulation checks in Study 1*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Anger | 11.93 | < .001 | .13 | 5.89 | < .001 | .13 | -0.64 | .525 | .00 | -0.67 | .504 | .00 |
| Disgust | 23.77 | < .001 | .23 | 8.08 | < .001 | .22 | 1.61 | .110 | .01 | -0.82 | .415 | .00 |
| Hope | 13.89 | < .001 | .14 | -5.90 | < .001 | .13 | -1.37 | .172 | .01 | 1.63 | .104 | .01 |
| Nostalgia | 5.66 | .001 | .06 | -1.33 | .186 | .01 | -0.83 | .405 | .00 | -3.87 | < .001 | .06 |
| T. orientation | 12.50 | < .001 | .13 | 0.35 | .728 | .00 | -1.17 | .242 | .01 | 6.01 | < .001 | .14 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 227

**Polarisation**

Overall, there was no clear evidence that emotion messages affected polarisation. This runs counter to our expectations, and suggests that emotion communication does not necessarily lead to greater polarisation in society. Statistically, as seen from Table 4.4, none of the effects for the four polarisation measures were significant. There was only one marginally significant small positive versus negative contrast effect being present for the perceived cognitive polarisation measure regarding the perception of the opposition and government as enemies.

As can be seen from the means in Table 4.3, for this measure, individuals who read the anger or disgust message were slightly more likely to perceive this animosity between the groups than those who read the hope or nostalgia message. Against this backdrop, we conclude that the communication of these four emotions did not affect perceived cognitive and affective polarisation.

**Table 4.3**

*Means and standard deviations for the polarisation measures in Study 1*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Warmth felt towards the government | 3.16 (1.34) | 2.89 (1.31) | 2.82 (1.20) | 2.98 (1.48) |
| Warmth felt towards the opposition | 4.51 (1.05) | 4.58 (1.22) | 4.50 (1.26) | 4.18 (1.24) |
| Affective polarisation | -1.35 (1.77) | -1.69 (1.96) | -1.68 (1.69) | -1.20 (1.94) |
| Perceived commonalities between groups | 3.84 (1.33) | 3.94 (1.49) | 3.80 (1.18) | 4.12 (1.23) |
| Perceived differences in debate stances | 4.71 (1.40) | 4.57 (1.39) | 4.47 (1.24) | 4.20 (1.39) |

*Note.* None of the tested effects were significant

**Table 4.4**

*Test statistics for the polarisation measures in Study 1*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_P^2$ | $t$ | $p$ | $\eta_P^2$ | $t$ | $p$ | $\eta_P^2$ |
| Warmth gov | 0.72 | .540 | .00 | 0.74 | .462 | .00 | -1.11 | .267 | .01 | -0.65 | .519 | .00 |
| Warmth opp | 1.24 | .297 | .00 | 1.32 | .189 | .01 | 0.34 | .731 | .00 | 1.42 | .158 | .01 |
| Aff. pol | 1.03 | .383 | .00 | -0.33 | .745 | .00 | -1.03 | .305 | .01 | -1.39 | .167 | .01 |
| Per. common | 0.63 | .599 | -.01 | -0.41 | .682 | .00 | 0.42 | .673 | .00 | -1.27 | .207 | .01 |
| Per. differ | 1.36 | .256 | .01 | 1.72 | .087 | .01 | -0.56 | .573 | .00 | 1.05 | .295 | .01 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 227

**Emotional contagion**

Overall, we found little evidence in favour of anger, disgust, hope, and nostalgia communication leading to emotional contagion. We did find that disgust message increased feelings of anger and disgust, and decreased feelings of hope and nostalgia. However, the cognitive appraisals were not affected by the emotion messages. Together, these results do not represent strong evidence in favour of our expectations, or emotional contagion in general.

*Emotional experience*

The results for emotional contagion were mixed. The disgust message had the most distinctive effects on emotional experience, increasing the experience of anger and disgust and decreasing the experience of hope and nostalgia. The hope and nostalgia messages increased the experience of their own respective emotions somewhat, but not significantly so. Together, these findings do not constitute strong evidence in favour of emotional contagion as the general response to emotion message criticising a powerful out-group.

Statistically, as seen from Table 4.6, for experienced anger, disgust, and hope, there were significant overall, significant positive versus negative contrast, and significant anger versus disgust contrast effects. For anger, these were medium to large, medium, and small to medium in size, respectively. For disgust, these were large, medium to large, medium in size, respectively. Lastly for hope, these were medium, small to medium, and small to medium in size, respectively. For experienced nostalgia, there was a significant small to medium overall,

significant small to medium positive versus negative contrast, and marginally significant small hope versus nostalgia contrast effect. Lastly, for temporal orientation, there was a marginally significant small hope versus nostalgia contrast effect.

Inspection of the means shown in Table 4.5 shows that individuals who read the anger or disgust message were more likely to experience anger or disgust than those who read the hope or nostalgia message, and both anger and disgust were significantly experienced more after reading the disgust message than after reading the anger one. Indeed, the significant negative versus positive emotion contrast effects for these emotions seems to be mostly driven by the increase of their experience after reading the disgust message. Conversely, those who read the hope or nostalgia message felt more hopeful than those who read the anger or disgust message, and people who read the anger message felt more hopeful than those who read the disgust message. All together however, the levels of hope after reading the anger and nostalgia message are equal. This suggests that it was mostly likely the increase in hope after reading the hope message *paired* with the decrease in hope after the reading the disgust message which may be behind the found effects. This pattern repeated for experienced nostalgia, only this time with the nostalgia message increasing the experience of nostalgia, the disgust message lowering the experience of nostalgia, and the levels of nostalgia being similar for those who read either the hope or anger message. Lastly, people were more oriented towards the past after reading the nostalgia message, with the other three scores again being similar but lower. In sum, we generally found that reading the disgust message increased the experience of anger and disgust, and decreased the experience of hope and nostalgia, and that reading either the hope or nostalgia message increased the experience of hope and nostalgia a little, respectively, but likely not significantly.

### *Appraisals*
There were no significant effects for any of the appraisals, showing that the cognitive aspects of contagion were unaffected by the emotion messages.

**Table 4.5**

*Means and standard deviations for the emotional contagion measures in Study 1*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| *Emotional contagion: emotional experience* | | | | |
| Experienced anger[abc] | 2.89 (1.49) | 3.65 (1.37) | 2.68 (1.33) | 2.42 (1.47) |
| Experienced disgust[abc] | 2.99 (1.67) | 3.95 (1.48) | 2.52 (1.46) | 2.54 (1.76) |
| Experienced hope[abc] | 3.82 (1.50) | 3.11 (1.60) | 4.28 (1.66) | 3.82 (1.56) |
| Experienced nostalgia[ab] | 3.11 (1.44) | 2.73 (1.54) | 3.27 (1.42) | 3.76 (1.81) |
| Temporal orientation | 5.15 (1.31) | 5.14 (1.26) | 5.17 (1.38) | 4.67 (1.49) |
| *Emotional contagion: appraisals* | | | | |
| Appraisal: government violates rights | 3.85 (1.84) | 3.92 (2.01) | 3.90 (1.90) | 3.75 (1.92) |
| Appraisal: government is evil | 3.47 (1.62) | 3.34 (1.84) | 3.47 (1.85) | 3.24 (1.72) |
| Appraisal: action makes the future better | 4.51 (1.50) | 4.58 (1.47) | 4.57 (1.71) | 4.33 (1.89) |
| Appraisal: going back is impossible | 3.38 (1.71) | 3.42 (1.81) | 3.67 (1.64) | 3.29 (1.70) |

[a] Significant overall effect: all means were not equal

[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.6**

*Test statistics for the emotional contagion measures in Study 1*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| *Emotional contagion: emotional experience* | | | | | | | | | | | | |
| Anger | 8.48 | < .001 | .09 | 3.84 | < .001 | .06 | 2.94 | .004 | .04 | 0.97 | .332 | .00 |
| Disgust | 1.93 | < .001 | .12 | 4.49 | < .001 | .08 | 3.30 | .001 | .05 | -0.08 | .941 | .00 |
| Hope | 5.82 | .001 | .06 | -2.81 | .005 | .03 | -2.43 | .016 | .03 | 1.52 | .129 | .01 |
| Nostalgia | 4.28 | .006 | .04 | -2.90 | .004 | .04 | -1.32 | .190 | .01 | -1.69 | .093 | .01 |
| T. orientation | 1.68 | .171 | .01 | 1.26 | .210 | .01 | -0.03 | .978 | .00 | 1.93 | .054 | .02 |
| *Emotional contagion: appraisals* | | | | | | | | | | | | |
| Violation | 0.09 | .964 | -.01 | 0.26 | .794 | .00 | 0.20 | .846 | .00 | 0.42 | .673 | .00 |
| Evil | 0.22 | .879 | -.01 | 0.23 | .815 | .00 | -0.42 | .679 | .00 | 0.69 | .492 | .00 |
| Future focus | 0.27 | .850 | -.01 | 0.45 | .656 | .00 | 0.25 | .802 | .00 | 0.75 | .456 | .00 |
| Past return | 0.49 | .686 | -.01 | -0.36 | .719 | .00 | 0.11 | .915 | .00 | 1.14 | .256 | .01 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 227

### Goal inference

Overall, the nostalgia message communicated unique goals that were milder towards the current government compared to the other emotion messages, although most effects were marginally significant. This is somewhat in line with our expectations regarding the effectiveness of nostalgia communication through goal inferences, but we found no evidence for the unique goals that hope may communicate, or that these changed inferences affected polarisation.

Statistically, as seen from Table 4.8, for the goal to seek reparations from the current government, there was a marginally significant small hope versus nostalgia contrast effect. For the goal of wanting to remove the current government, there was a marginally significant small positive versus negative contrast, and a marginally significant small hope versus nostalgia contrast effect. For the goal of wanting a government that was focused on tackling a broad set of issues, there was marginally significant small hope versus nostalgia contrast effect. Lastly, for the goal of wanting a government that focused on returning to the way of how things had been, there was a significant small to medium overall, and significant small to medium hope versus nostalgia contrast effect.

Inspection of the means shown in Table 4.7 reveals that for all goals and all conditions, the scores were above the midpoint, indicating that people did infer each goal to some extent. Those who read the nostalgia message were slightly more likely to infer a reparations goal, and slightly less likely to infer a removal goal or a goal of creating a government with a broad focus than those who read one of the other three messages. Those who read the hope message were less likely to infer a goal of returning to the past way of doing things, which was more inferred after reading the nostalgia message, all compared to the anger and disgust message which communicated this goal equally.

Overall, the reparation goal was inferred the least in every condition, and the removal goal the most, with the difference being smallest for the nostalgia message. For the policy goals, the broad set of issues goals was more inferred than the return goal in the anger, disgust, and hope condition, with the difference being most prominent after reading the hope message. The return goal was more likely to be inferred than the broad focus goal after reading the nostalgia message. In sum, the nostalgia message led to the inference of a unique set of goals that appears to be milder towards the current government and more focused on returning to the past than the other three messages.

**Table 4.7**

*Means and standard deviations for the goal inference measures in Study 1*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Goal: reparations from the government | 4.35 (2.05) | 4.34 (1.99) | 4.25 (1.96) | 4.90 (1.45) |
| Goal: remove the government | 5.85 (1.31) | 6.03 (1.31) | 5.85 (1.25) | 5.39 (1.72) |
| Goal: focus on a broad set of issues | 5.36 (1.34) | 5.49 (1.39) | 5.63 (1.41) | 5.18 (1.53) |
| Goal: focus on returning to the past[ad] | 5.24 (1.62) | 5.20 (1.70) | 4.72 (1.79) | 5.69 (1.56) |

[a] Significant overall effect: all means were not equal

[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.8**

*Test statistics for the goal inference measures in Study 1*

| | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Reparations | 1.33 | .267 | .00 | -0.94 | .350 | .00 | -0.02 | .984 | .00 | -1.81 | .071 | .01 |
| Removal | 2.10 | .102 | .01 | 1.74 | .083 | .01 | 0.69 | .492 | .00 | 1.72 | .087 | .01 |
| Broad focus | 1.04 | .377 | .00 | 0.12 | .902 | .00 | 0.50 | .621 | .00 | 1.69 | .092 | .01 |
| Past return | 3.11 | .027 | .03 | 0.08 | .940 | .00 | -0.20 | .906 | .00 | 3.04 | .003 | .04 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 227

# STUDY 1: DISCUSSION

The results of Study 1 showed that the communication of any of the four distinct emotions did not reliably affect either of the two forms of perceived polarisation we measured (affective or perceived cognitive). As such, and in line with previous chapters that found communicated emotions are unlikely to increase support, Study 1 showed that communicated emotions are unlikely to increase polarisation in society. This result runs counter to our hypothesis and exploratory expectation of how anger and disgust might increase affective polarisation through emotional contagion and how hope and nostalgia might increase perceived cognitive polarisation through goal inference.

Nonetheless, and in line with Chapters 2 and 3, people did react differently towards the different emotion messages in terms of emotional experience and inferred goals. In terms of recognition, the nostalgia was easily recognised after the nostalgia message, whilst hopefulness was seen from both the hope and nostalgia message. Anger and disgust were perceived in both the anger and disgust messages. This means we can be most confident in attributing the effects of the nostalgia message to communicated nostalgia.

In terms of contagion, whilst the cognitive appraisals stayed unaffected, one emotion message did affect people's emotional experience, namely the disgust one. Specifically, this message led to increases in experienced anger and disgust and decreases in experienced hope and nostalgia. There was some evidence that the hope and nostalgia message may lead to contagion as well, but the effects were not significant. This unique position for disgust communication differs from Chapters 2, where we found no effect for this emotion. Similarly, the unique emotional contagion effects for communicated nostalgia from Chapter 3 were also missing. Overall, these findings suggest that disgust communication may have strong negative effects on the emotional state of the audience, but that these changes do not necessarily translate into changed ideas about the current situation. In general, these findings are not in favour of our hypothesis regarding the potential effectiveness of anger and disgust communication in increasing affective polarisation via emotional contagion.

For goal inference, we did find a distinct effect for the nostalgia message, with it communicating a less extreme stance towards the current government (although removal was still preferred over reparations like after the other messages) and a focus on regressive policy

rather than progressive policy (similar to Chapter 3). This distinct goal inference effect for nostalgia fits with the notion that nostalgia was most readily perceived, and therefore it could likely have the most distinct communicative function, but it did however not lead to any changes in polarisation as expected, and as such does not fully support our expectation that hope and nostalgia communication can increase perceived cognitive polarisation via goal inferences.

The study had a number of limitations that we aimed to address in a follow-up study. One reality constraint that may have complicated the effects of the manipulation was the existence of multiple alternatives to the government's approach in the used context of the corona pandemic (removal of or adding more stringent measures), and different opposition parties favouring different alternatives. As such, different initial party and policy preferences may have interacted with certain emotions to complicate the results. Therefore, we chose a context in which the issue itself only had two clear outcomes, one of which was favoured by the government and the other by (most of) the opposition, namely Scottish independence.

In line with our thinking regarding polarisation as a possible indirect means to garnering support, we added measures regarding voting intentions for (possible) upcoming elections, and the perceived persuasiveness and mobilising power of each message. These measures allowed us to examine whether or not anger, disgust, hope, and nostalgia messages that are more vocal critiques of political opponents may have some support-increasing effects as well, at least in terms of motivating people to go out and vote for the parties and people the communicator supports.

## STUDY 2: METHODS

Study 2 aimed to replicate the Study 1 findings while using a different study context, namely that of Scottish Independence. The question of whether to support or to oppose independence was less vague than the question of how a government should handle a global pandemic (as in Study 1). The government party at the time, the Scottish National Party (SNP), supported independence. As such, we sampled Scottish citizens who were planning to vote for an opposition party and who were opposed to Scottish independence.

### Participants and Design
Study 2 used a similar between-subjects four condition design (Anger vs. Disgust vs. Hope vs. Nostalgia), with participants randomly being assigned to one of the four conditions. Participants were collected using Prolific Academic, and those who finished the questionnaire received a small monetary reward for participating in the study, provided they did not demonstrably fake honest participation. We initially sampled 1400 individuals who lived in Scotland and asked them whether they were planning to vote for an opposition party or the government party, and whether they opposed or supported Scottish independence. We then sampled 347 individuals who were both planning on voting for an opposition party and who opposed independence to take part in the main study. We removed seven participants

that did not finish the survey, and two who indicated that their data should not be used, leaving a total of 338 responses.

Based on a number of quality checks, the sample was further reduced. If participants spent less than 40 seconds or indicated the wrong subject of the study in the instructional manipulation check, they were removed. However, participants spending less than 40 seconds on the page but indicating the right subject were kept. Lastly, if people indicated this time that they were in favour of independence, they were also removed from the sample. This left 311 individuals for analysis ($N_{anger} = 82$, $N_{disgust} = 76$, $N_{Hope} = 74$, $N_{Nostalgia} = 79$). Analysis of the sample's political orientation[16] showed that, on average, the sample was politically centred, but spanning the full range ($M = 3.73$, $SD = 1.05$, $min = 1$, $max = 7$). Visual inspection of the data reveals a peak around the mean value, with smaller peaks around the right and left. As the opposition in Scotland includes both the Labour and Conservative party, the two smaller peaks fit with the opposition ideology. However, the centre peak cannot be clearly accounted for. Information regarding the samples' gender and age distribution can be found in the Supplementary Materials Chapter 4, Section 1 in Appendix 3.

**Procedure**

The data was collected in April 2021, a few weeks before the Scottish elections. The procedure was very similar to Study 1, and as such, we will only highlight three changes made to the questionnaire. Notably, the manipulation focused on the government's intention to leave the UK, and critiqued this decision, calling it another crisis waiting to happen just as the country was recovering from the pandemic. They then gave their opinion on independence, which was used to reduce the sample more by removing those in favour. Lastly, participants answered items concerned with the mobilising versus persuading effect of the message, and their intention to vote in upcoming elections. A number of additional items were measured but are not included here (See Supplementary Materials Chapter 4, Section 2 in Appendix 3.

**Manipulation and Measures**

Participants answered by indicating their agreement on a Likert-type scale ranging from 1 (Not at all) to 7 (Very much), and mean scores were calculated. The key dependent variables are described here. The full manipulation texts and a description of the instructional manipulation check can be found in the Supplementary Materials Chapter 4, sections 3 and 4 in Appendix 3.

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[16] Participants indicated their political orientation by describing themselves as 1 (Very Left-wing) to 7 (Very Right-wing) using the following three items after the stem: *regarding economic issues I would describe myself, regarding social issues I would describe myself, generally I would describe myself* ($\alpha = .91$).

*Manipulation*

In all conditions, the messages followed the same three-paragraph structure. The manipulation focused mainly on the arguments used and the explicit statement of the emotional state of the writer. As before, the writer was not identified to prevent existing political beliefs from altering people's responses. In the first paragraph, the writer lamented the government's intention to leave the UK just as Scotland was starting to recover from the pandemic. This was followed by an emotion-specific argument for a new government, with the anger and disgust conditions outlining how independence would bring uncertainty to the nation and may harm Scottish people, and the hope and nostalgia message wishing for a government that would focus on governing, rather than independence. The second paragraph further explained the argument, focusing on how the previous referendum had indicated that independence was not what Scottish people wanted, and outlining how staying within the union could only be good. The last paragraph was a short call to action, urging people to go and vote. Similar to before, explicit mentions of the writer's emotional state were interspersed in the message, and arguments and comparisons were written in emotion-specific ways to further communicate the emotion in the message.

*Quality checks*

As quality checks, participants indicated their agreement with the message of the writer (i.e., their opinion regarding Scottish Independence). We used the same explicit emotion in the message check and the items to indicate the writer's emotional state as in Study 1. However, we once again did not use the explicit emotion check, just as in Study 1. Lastly, participants completed an instructional manipulation check (Oppenheimer et al., 2009), indicated whether their data should be used, and whether it was allowed to be shared.

*Polarisation*

Affective and perceived cognitive polarisation were measured in the same way as in Study 1. A difference score was created to assess affective polarisation, and the perceived cognitive polarisation items were kept apart ($r = -.54$, $p < .001$).

*Mobilisation, persuasion, and intention to vote*

To assess whether potentially polarising emotion messages could be used to increase support for the communicator, we added a number of measures to assess how these messages impacted people to go out and vote. Participants indicated whether the message they read were likely to persuade them using two items that were combined into a single scale: *Texts such as the one I read… provide new information that help me shape my (political) opinion*, and *provide new insights that help me get a clearer idea of which party to support* ($r = .88$, $p < .001$). Similarly, participants also indicated whether the message was likely to mobilise them to go out and vote using two items, combined into a single scale: *Texts such as the one I read… motivate me to go and do my part to ensure my political preferences become a*

*reality*, and *make me want to go and make use of my democratic rights* ($r = .80$, $p < .001$). Lastly, they indicated their willingness to vote in future elections with two items: *For the following (possible) elections, I am sure that I will go and vote… Scottish elections on May 6[17]*, and *Second Scottish Independence Referendum*.

### Emotional contagion

**Experienced emotions.** Participants indicated to what extent they felt anger, disgust, hope, and nostalgia using the same items as in Study 1. We again merged the two anger items ($r = .91$, $p < .001$), as well as the two disgust items ($r = .92$, $p < .001$) into two measures for anger and disgust.

**Appraisals.** Participants indicated their appraisals of the current situation by agreeing to four statements, all kept as single items, and modified from Study 1 to better reflect the role of the (current) government, rather than the pure cognitions that are generally associated with each emotion: *After reading this text, I believe that…the current government's actions are misguided and harmful to the country*, *the current government consists of immoral and evil people, by coming together, we can move towards a government that focuses on improving the lives of Scottish people*, and *the actions of the current government have removed us from a better time in our country*.

### Goal inference

Participants indicated their perception of what they believed the writer hoped the opposition parties would do by agreeing to four statements. All goals were kept as single items and were modified from Study 1 to focus more on the role of government. These goals were: *I believe that the writer wants the opposition parties to… punish the current government party*, *avoid working with the current government party after the election*, *change the course the current government has set in order to achieve a stronger Scotland*, and *reverse the changes made and policies introduced by the current government*.

## STUDY 2: RESULTS

One-way ANOVAs with the same three contrasts as in the previous study were run to examine the effects of the emotion messages. Univariate outliers were checked using boxplots. A total of seven participants had four or more outliers on variables of interest, were deemed unfit for the sample, and were removed ($N_{anger} = 81$, $N_{disgust} = 75$, $N_{Hope} = 72$, $N_{Nostalgia} = 76$). For each section, we first provide the main conclusions, then follow with the statistical analyses supporting those findings, and lastly give a full description of each statistical effect. The means and standard deviations, and the associated test statistics can be found in Tables 4.9 through 4.18. Effect sizes are classified following the rules of thumb from Cohen (1988; small $R_{adj}^2/\eta_p^2 = .01$, medium $R_{adj}^2/\eta_p^2 = .06$, large $R_{adj}^2/\eta_p^2 = .14$).

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[17] The Scottish election on May 6 was the election that was a few weeks away from the data collection.

**Manipulation checks**

Overall, we found that nostalgia and disgust were communicated by the nostalgia message and disgust message respectively, but that anger and hope were only being communicated by the valence of the message. Therefore, as in Study 1, we cannot be certain that the effects of the anger and hope messages are due to communicated anger and hope, and can be certain that the effects of the nostalgia message are due to communicated nostalgia. Moreover, in this study, we can also confidently attribute the effects of the disgust message to communicated disgust.

Statistically, as seen from Table 4.10, there was a significant large overall and significant large positive versus negative contrast effect for perceived anger, and perceived disgust. Additionally, there was a significant small anger versus disgust and marginally significant small hope versus nostalgia contrast for perceived disgust. For perceived hopefulness and perceived nostalgia, there was a significant large overall, and a medium to large positive versus negative contrast effect, with an additional significant large hope versus nostalgia effect for perceived nostalgia. Lastly, there was a significant medium overall, small to medium anger versus disgust, and large hope versus nostalgia contrast effect for temporal orientation.

Inspection of the means in Table 4.9, shows that individuals who read the anger or disgust message were more likely to perceive the writer as angry and disgusted than those who read the hope or nostalgia message. For perceived disgust, those who read the disgust message perceived significantly more disgust than those who read the anger. Furthermore, those who read the nostalgia message also perceived more disgust than those who read the hope message, but the perception of disgust after those messages was significantly lower than after reading the anger or disgust messages. For perceived hopefulness, individuals who read the hope or nostalgia message were more likely to perceive the writer as hopeful than those who read the anger or disgust message. Nostalgia was significantly more perceived after reading the nostalgia message compared to the other three messages. Lastly, people perceived the writer as more focused on the past after reading the nostalgia message, and more focused on the future after reading the hope one, with the anger message being perceived as slightly more future-oriented, and the disgust on as more past-oriented. In sum, communicated disgust and nostalgia were clearly perceived after reading their respective messages, but anger and hope were only generally communicated by the valence of the message. This means we can be relatively certain in attributing the effects of the disgust and nostalgia messages to the communication of their respective emotions, but not so certain in attributing the effects of the anger and hope message to communicated anger or hope.

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**Table 4.9**

*Means and standard deviations for the manipulation checks in Study 2*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Perceived anger of writer[ab] | 6.19 (1.03) | 5.97 (1.39) | 3.69 (1.61) | 4.08 (1.70) |
| Perceived disgust of writer[abc] | 5.57 (1.34) | 6.11 (1.30) | 3.39 (1.74) | 3.88 (1.74) |
| Perceived hopefulness of writer[ab] | 3.89 (1.55) | 3.61 (1.57) | 5.35 (1.34) | 5.14 (1.45) |
| Perceived nostalgia of writer[abd] | 3.33 (1.51) | 3.73 (1.53) | 3.58 (1.73) | 5.95 (1.36) |
| Perceived temporal orientation of writer[acd] | 5.19 (1.45) | 4.48 (1.62) | 5.82 (1.17) | 3.82 (1.98) |

[a] Significant overall effect: all means were not equal

[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.10**

*Test statistics for the manipulation checks in Study 2*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| P. Anger | 59.14 | $<.001$ | .37 | 13.19 | $<.001$ | .37 | -0.91 | .362 | .00 | -1.62 | .107 | .01 |
| P. Disgust | 53.92 | $<.001$ | .34 | 12.47 | $<.001$ | .34 | 2.19 | .030 | .02 | -1.95 | .052 | .01 |
| P. Hope | 26.14 | $<.001$ | .20 | -8.78 | $<.001$ | .20 | -1.16 | .247 | .00 | 0.83 | .407 | .00 |
| P. Nostalgia | 47.68 | $<.001$ | .32 | -7.01 | $<.001$ | .14 | 1.63 | .104 | .01 | -9.38 | $<.001$ | .23 |
| P. Temporal orientation | 22.31 | $<.001$ | .17 | 0.08 | .934 | .00 | -2.78 | .006 | .03 | 7.69 | $<.001$ | .16 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 300

### Polarisation

Overall, Study 2 replicated Study 1 by finding no clear evidence in favour of our hypotheses that the communication of anger, disgust, hope or nostalgia directly affect polarisation. Statistically, as seen from Table 4.12, there was a marginally significant small overall, marginally significant small positive versus negative contrast, and marginally significant small anger versus disgust contrast effect for the affection felt towards the government. This also carried further into a marginally significant small anger versus disgust contrast effect for affective polarisation. There were no other effects on the measures for affection felt towards the opposition or perceived cognitive polarisation.

Inspection of the means in Table 4.11 shows that individuals who read the anger message felt less warmth towards the government than those who read the other messages, which was also visible in the affective polarisation measure, with a greater difference between appreciation scores of the government and opposition after reading the anger message. In

sum, we conclude that the communication of these four emotions does not affect perceived cognitive and affective polarisation[18].

**Table 4.11**

*Means and standard deviations for the polarisation measures in Study 2*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Warmth felt towards SNP | 2.14 (1.17) | 2.48 (1.43) | 2.54 (1.17) | 2.63 (1.35) |
| Warmth felt towards opposition | 4.42 (1.37) | 4.21 (1.36) | 4.25 (1.17) | 4.41 (1.39) |
| Affective polarisation | -2.28 (1.87) | -1.73 (2.03) | -1.71 (1.65) | -1.78 (2.10) |
| Perceived commonalities between groups | 3.67 (1.47) | 3.53 (1.44) | 3.60 (1.37) | 3.54 (1.42) |
| Perceived differences in debate stances | 4.40 (1.40) | 4.76 (1.43) | 4.64 (1.30) | 4.71 (1.47) |

*Note.* None of the tested effects were significant

**Table 4.12**

*Test statistics for the polarisation measures in Study 2*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_P^2$ | $t$ | $p$ | $\eta_P^2$ | $t$ | $p$ | $\eta_P^2$ |
| Warmth gov | 2.25 | .083 | .01 | -1.89 | .060 | .01 | 1.67 | .096 | .01 | -0.43 | .671 | .00 |
| Warmth opp | 0.49 | .689 | -.01 | -0.08 | .935 | .00 | -0.97 | .332 | .00 | -0.72 | .470 | .00 |
| Aff. pol | 1.61 | .188 | .01 | -1.21 | .228 | .01 | 1.79 | .074 | .01 | 0.22 | .830 | .00 |
| Per. common | 0.15 | .930 | -.01 | 0.19 | .847 | .00 | -0.58 | .560 | .00 | 0.25 | .805 | .00 |
| Per. differ | 1.05 | .370 | .00 | -0.60 | .547 | .00 | 1.62 | .106 | .01 | -0.31 | .757 | .00 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 300

**Mobilisation, persuasion, and voting intentions**

Moving beyond Study 1, we focused on a number of support-related measures. Overall, we only found negative effects of the emotion messages, with the disgust message being perceived as less persuasive and mobilising than the others, and the hope message marginally lowering voting intentions were marginally lowered by the hope message. Together, these findings suggest that using emotional messages in political speech does not work for increasing support.

Statistically, as seen in Table 4.14, with regards to the mobilising effects of emotion messages, there was a significant small to medium overall, marginally significant small positive versus negative contrast, and significant small to medium anger versus disgust contrast effect. Similarly, for the persuasive effects, there was a significant small to medium overall, and a significant small to medium anger versus disgust contrast effect. Lastly, there

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[18] We initially included measures on participants' perception of gap between the government and opposition being too wide and an impediment to governance, as well as measures regarding participants' preferences regarding the SNP in the future. We found one small effect of the hope message lowering the perception of the gap between the two sides as too wide. However, as we did not have a strong theoretical rationale for these items, and they were self-generated, we omitted them from this Chapter. On a larger scale, this finding did not change any of our presented conclusions regarding the effects of emotion communication on polarisation.

was a marginally significant small hope versus nostalgia contrast effect on the intention to vote in a second referendum. All other effects, including those for the intention to vote in the upcoming elections, were not significant.

Inspection of the means in Table 4.13 shows that those who read the disgust message were less likely to note the message as mobilising or persuasive compared to those who read the anger, hope or nostalgia message. Those who read the hope message were less likely to vote in a possible second Independence referendum than those who read the other three messages, although the overall high scores in all conditions on this scale raise concerns regarding possible ceiling effects. In sum, these findings suggest that emotion messages may be ineffective, and potentially even harmful, if the communicator's aim is to increase support or political engagement.

**Table 4.13**

*Means and standard deviations for message persuasiveness and mobilising potential in Study 2*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Mobilising potential of message[ac] | 4.57 (1.75) | 3.71 (1.89) | 4.61 (1.62) | 4.42 (1.72) |
| Persuasive potential of message[ac] | 3.56 (1.71) | 2.81 (1.65) | 3.55 (1.67) | 3.40 (1.56) |
| Intention to vote in election | 6.60 (1.15) | 6.41 (1.45) | 6.36 (1.42) | 6.63 (0.89) |
| Intention to vote in second referendum | 6.60 (1.25) | 6.45 (1.33) | 6.08 (1.84) | 6.51 (1.33) |

[a] Significant overall effect: all means were not equal
[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean
[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean
[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.14**

*Test statistics for message persuasiveness and mobilising potential in Study 2*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Mobilisation | 4.36 | .005 | .03 | -1.89 | .060 | .01 | -3.07 | .002 | .03 | 0.66 | .510 | .00 |
| Persuasion | 3.52 | .015 | .02 | -1.54 | .126 | .01 | -2.86 | .005 | .03 | 0.54 | .587 | .00 |
| Election vote | 0.89 | .445 | .00 | 0.09 | .929 | .00 | -0.96 | .337 | .00 | -1.32 | .187 | .01 |
| Ref. vote | 1.85 | .138 | .01 | 1.39 | .166 | .01 | -0.65 | .514 | .00 | -1.80 | .072 | .01 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 300

**Emotional contagion**

Overall, like in Study 1, we found little evidence specifically in favour of emotional contagion, except for anger communication. However, taken together, we do see some convergence between the emotional state of the participants and the type of emotion message they read on a general valence, arousal, temporal orientation level. Furthermore, and unlike Study 1, we found that appraisals were affected by the emotion messages in this study, with the anger and disgust messages increasing appraisals critical of the government. Together,

these findings are somewhat in line with our hypothesis that anger and disgust communication may bring about affective polarisation via emotional contagion, although the effects are less clear than expected (i.e., that a specific emotion message would only affect that specific emotion experience and related appraisal), and we found no effects on affective polarisation.

*Emotional experience*

Overall, unlike Study 1 where we found emotional contagion for disgust communication, here we found that emotional contagion was only clearly present for the anger message. However, we did find some form of convergence between the emotional state of the participants and the message they read on a more general valence, arousal, and temporal orientation level. Together, these findings are partly in line with our hypotheses regarding emotional contagion, though less specific than expected.

Statistically, as seen in Table 4.16, for experienced anger, there was a significant large overall, significant medium to large positive versus negative contrast, and a significant small to medium anger versus disgust contrast effect. For experienced disgust, there was a significant medium overall and significant medium to large positive versus negative contrast effect. For experienced hope, there was a significant medium overall and significant medium positive versus negative contrast effect. For experienced nostalgia, there was a marginally significant small overall, and significant small hope versus nostalgia contrast effect. Lastly, for temporal orientation, there was a significant small overall, and a significant small hope versus nostalgia contrast effect.

Inspection of the means in Table 4.15 suggests that individuals who read the anger or disgust message were more likely to experience anger or disgust than those who read the hope or nostalgia message, and experienced anger was significantly higher for those who read the anger message compared to those who read the disgust message. Hope was felt more after reading the hope or nostalgia message than after the anger or disgust one. Nostalgia was felt most after reading the nostalgia message, more so than after the hope one. However, compared to the experience of nostalgia after reading either the anger or disgust message, the nostalgia message did not elicit significantly more nostalgia. Lastly, people were more oriented towards the past after reading the disgust or nostalgia message, and more oriented towards the future after the anger or hope message. In sum, we found general evidence for a convergence between the emotional state of the participants and the type of emotion message they read, but no consistent evidence in favour of our emotional contagion hypothesis.

*Appraisals*

Overall, unlike Study 1 where appraisals were unaffected, we found that anger and disgust messages increased a negative perception of the out-group by eliciting negative appraisals regarding the government, namely that they were misguided, immoral, and responsible for the loss of how good things were in the past. This finding is, like with the emotional

experience findings, partly in line with our hypotheses regarding emotional contagion, but not as specific as we had expected.

Statistically, as seen from Table 4.16, there was a significant small to medium overall, and a significant small to medium positive versus negative contrast effect regarding the appraisal of the government as misguided. Similarly, there was a marginally significant small overall, and a significant small positive versus negative contrast effect regarding the appraisal of the government as immoral. Lastly, there was a significant small positive versus negative contrast effect for the appraisal of the government's actions as having removed the country from a better time.

Inspection of the means in Table 4.15 shows that people who read the anger or disgust message were more likely to perceive the government as misguided than those who read the hope or nostalgia message. For appraisal of the government as immoral, the effects appear mostly driven by the anger message increasing this appraisal compared to the other messages. Lastly, people who read the anger or disgust message were more likely to have the appraisal that the government had removed the country from the better time than those who read the hope or nostalgia message. In sum, these findings show that both anger and disgust, but anger more so, increased negative appraisals regarding the out-group.

**Table 4.15**

*Means and standard deviations for the emotional contagion measures in Study 2*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Emotional contagion: emotional experience | | | | |
| Experienced anger[abc] | 3.66 (1.61) | 2.91 (1.55) | 2.06 (1.32) | 2.32 (1.61) |
| Experienced disgust[ab] | 2.69 (1.55) | 2.74 (1.54) | 1.79 (1.29) | 1.93 (1.48) |
| Experienced hope[ab] | 3.62 (1.53) | 3.29 (1.53) | 4.38 (1.59) | 3.99 (1.75) |
| Experienced nostalgia[d] | 2.44 (1.54) | 2.41 (1.41) | 2.06 (1.25) | 2.72 (1.78) |
| Temporal orientation[ad] | 5.60 (1.09) | 5.28 (1.09) | 5.75 (0.98) | 5.22 (1.65) |
| Emotional contagion: appraisals | | | | |
| Appraisal: SNP as misguided[ab] | 5.91 (1.32) | 5.71 (1.27) | 5.29 (1.41) | 5.36 (1.42) |
| Appraisal: SNP as immoral[b] | 4.12 (2.04) | 3.64 (1.93) | 3.31 (1.78) | 3.50 (1.97) |
| Appraisal: future-focused government | 5.47 (1.26) | 5.37 (1.48) | 5.46 (1.29) | 5.61 (1.24) |
| Appraisal: better past removed by SNP[b] | 5.20 (1.50) | 5.07 (1.49) | 4.67 (1.54) | 4.87 (1.66) |

[a] Significant overall effect: all means were not equal

[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.16**

*Test statistics for the emotional contagion measures in Study 2*

| Variable | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Emotional contagion: emotional experience | | | | | | | | | | | | |
| Anger | 16.77 | < .001 | .14 | 6.24 | < .001 | .11 | -3.07 | .002 | .03 | -1.03 | .302 | .00 |
| Disgust | 8.55 | < .001 | .07 | 5.04 | < .001 | .08 | 0.21 | .837 | .00 | -0.59 | .557 | .00 |
| Hope | 6.30 | < .001 | .05 | -3.95 | < .001 | .05 | -1.26 | .208 | .01 | 1.48 | .141 | .01 |
| Nostalgia | 2.43 | .066 | .01 | 0.23 | .821 | .00 | -0.13 | .898 | .00 | -2.69 | .008 | .02 |
| T. orientation | 3.18 | .024 | .02 | -0.31 | .753 | .00 | -1.65 | .100 | .01 | 2.60 | .010 | .02 |
| Emotional contagion: appraisals | | | | | | | | | | | | |
| Misguided | 3.64 | .013 | .03 | 3.13 | .002 | .03 | -0.95 | .341 | .00 | -0.29 | .775 | .00 |
| Immoral | 2.53 | .058 | .02 | 2.16 | .032 | .02 | -1.56 | .120 | .01 | -0.61 | .542 | .00 |
| Future-focused gov. | 0.40 | .753 | -.01 | -0.73 | .466 | .00 | -0.45 | .651 | .00 | -0.68 | .499 | .00 |
| SNP removed past | 1.70 | .167 | .01 | 2.05 | .041 | .01 | -0.53 | .599 | .00 | -0.79 | .429 | .00 |

*Note.* Degrees of freedom for the F- (and t-) statistics were 3 and 300

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### Goal inference

Overall, the anger and disgust messages, especially the disgust one, were more likely to communicate every goal compared to the hope and nostalgia ones, but this did not lead to a different pattern of goal inferences for these messages compared to the hope or nostalgia message. Indeed, unlike in Study 1, where we found that the unique effect of the nostalgia message led to a pattern of less extreme goals, such a strengthening or weakening effect for any of the emotion messages was not present in this study. Together then, these findings are not in line with our expectations regarding the possible polarising effects of hope and nostalgia communication through goal inference.

Statistically, as seen from Table 4.18, for the goal to punish the current government, there was a significant large overall, significant large positive versus negative, and significant medium anger versus disgust contrast effect. This pattern effect was also present for the goal of wanting to remove the current government, with the effect sizes being medium to large, medium to large, and small to medium in size, respectively. For the goal of wanting to prevent further issues by moving away from the current course of government, there was only a significant small positive versus negative contrast effect. Lastly, there was marginally significant small overall, significant small positive versus negative contrast, and marginally significant small anger versus disgust contrast effect for the goal of reversing the policies put in place by the current government.

Inspection of the means in Table 4.17 suggest that those who read the anger or disgust message, especially the disgust one, were more likely to infer the punishment and removal goals from the message than those who read the hope or nostalgia messages. Similarly, those who read the anger or disgust message were more likely to infer the prevention of further

problems goal than those who read the hope or nostalgia message. Lastly, those who read the disgust message were more likely to infer the reversing the policies made by the government goal than those who read any of the other three messages. However, these changes did not change the general pattern that we see across the goals, where removal rather than punishment of the government, and moving forward rather than reversing the governments' policies already made were inferred more. In sum, the greater inference of each goal after the anger or disgust messages did not change the general inference patterns we see across conditions, suggesting that emotion messages did not meaningfully alter goal inferences.

**Table 4.17**

*Means and standard deviations for the goal inference measures in Study 2*

| Variable | Anger | Disgust | Hope | Nostalgia |
|---|---|---|---|---|
| Goal: punish the SNP[abc] | 4.41 (1.81) | 5.41 (1.53) | 3.11 (1.48) | 3.49 (1.71) |
| Goal: remove the SNP[abc] | 4.69 (1.70) | 5.68 (1.33) | 4.10 (1.75) | 4.17 (1.79) |
| Goal: make gov. focus on improvement[b] | 6.05 (1.20) | 6.05 (1.01) | 5.69 (1.53) | 5.74 (1.32) |
| Goal: reverse SNP policies[b] | 4.86 (1.51) | 5.27 (1.35) | 4.71 (1.30) | 4.74 (1.52) |

[a] Significant overall effect: all means were not equal

[b] Significant positive versus negative emotion contrast: combined anger and disgust condition mean differed from the combined hope and nostalgia condition mean

[c] Significant anger versus disgust contrast effect: anger condition mean differed from the disgust condition mean

[d] Significant hope versus nostalgia contrast effect: hope condition mean differed from the nostalgia condition mean

**Table 4.18**

*Test statistics for the goal inference measures in Study 2*

| | Overall | | | Positive vs. negative | | | Anger vs. Disgust | | | Hope vs. Nostalgia | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Variable | $F$ | $p$ | $R_{adj}^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ | $t$ | $p$ | $\eta_p^2$ |
| Punishment | 29.20 | < .001 | .22 | 8.55 | < .001 | .20 | 3.83 | < .001 | .05 | -1.39 | .165 | .01 |
| Removal | 14.51 | < .001 | .12 | 5.54 | < .001 | .09 | 3.73 | < .001 | .04 | -0.27 | .786 | .00 |
| Prevention | 1.76 | .154 | .01 | 2.29 | .023 | .02 | 0.02 | .985 | .00 | -0.20 | .840 | .00 |
| Reverse policy | 2.43 | .066 | .01 | 2.09 | .037 | .01 | 1.76 | .080 | .01 | -0.12 | .903 | .00 |

*Note.* Degrees of freedom the for F- (and t-) statistics were 3 and 300

# DISCUSSION STUDY 2

Consistent with Study 1, Study 2 found no clear direct effects of the communication of the four emotions on political polarisation, and thus we found no support for our hypothesis that anger and disgust communication increases affective polarisation, or for our exploration of whether hope and nostalgia communication increased perceived cognitive polarisation. Some marginal effects on affective polarisation suggested that an anger message may be effective in increasing polarisation by persuading voters to see the target of the message, the government, as more negative. However, the overall pattern was, as in Study 1, that the emotion messages did not clearly increase perceived polarisation.

We also found no evidence that potentially polarising messages would encourage behaviour that may support the communicator, as none of the messages were perceived as more mobilising or persuasive or increased the likelihood to go out and vote in specific upcoming elections. Moreover, and similar to what we found in Chapter 2 with regards to emotion messages affecting political support directly, we found that the disgust message may backfire on the communicator, as the participants found this message to be less mobilising and persuasive. We also found that the hope message could potentially decrease intentions to go and vote in a potential upcoming election, suggesting that hope alone may not be enough to motivate future behaviour, as suggested by other studies as well (Cohen-Chen & Van Zomeren, 2018; Van Zomeren et al., 2019).

However, like in Study 1, Study 2 found that different emotion messages do elicit changes in the psychological experiences of the sample. Most of these effects were not the same across the studies, however. For the emotion recognition check, we found that, as in Study 1, nostalgia was once again most clearly recognised from the nostalgia message. However, disgust was also more distinct, while anger and hope were communicated more so by both emotion messages of the same valence. The unique recognisability of nostalgia did not carry through to any other effects as it presumably did in Study 1 with regards to the goal inferences. Overall, this suggests that we can be most confident in attributing the effects of the disgust and nostalgia messages to the communication of these emotions, but are less sure about the effects of hope and anger messages.

In terms of contagion, anger and disgust were felt more after reading the anger and disgust messages than after the hope and nostalgia ones. Furthermore, experienced anger was greater after reading the anger message than after reading the disgust one. Hope was felt more after both the hope and nostalgia messages than after the anger and disgust messages, and nostalgia was felt most after the nostalgia message, significantly more so than after the hope one, but not significantly more so than after the negative emotion messages. Therefore, the unique effects of the disgust message as found in Study 1 were not replicated, and the distinctiveness of the hope and nostalgia messages as found in Study 1 was also weaker. Indeed, the findings of Study 2 suggested only a general sense of convergence between the participants' emotional state and which emotion message they had read, with anger and disgust messages increasing both anger and disgust, and hope and nostalgia messages increasing their own emotions slightly.

Also unlike Study 1, Study 2 did show changes on the appraisal measures. The anger and disgust messages strengthened the theoretically anger and disgust appraisals of the government as misguided and immoral more than the positive emotion message, with the anger message having slightly stronger (but not significantly so) effects than the disgust message. The theoretically nostalgic "removal of a better past" appraisal also followed the negative over positive emotion message pattern. In general, the anger and disgust messages generally led to a more negative perception of the out-group, i.e., the government. These findings together with mentioned changes in experienced emotions suggest some merit to the

hypothesis that anger and disgust communication can increase affective polarisation via emotional contagion, although the effects found were not as precise as we had expected, and we found no clear evidence that affective polarisation was affected.

Lastly, for the goals, we found that more negative goals such as wanting to punish or remove the current government, and reversing their policies were communicated more through anger and disgust messages, especially the disgust one. However, considering the overall pattern of goal inferences, we found that none of the messages clearly led to a distinct set of inferred goals like we found in Study 1 for the nostalgia message, which led to a pattern of goal inferences that appeared to be more relaxed towards the government. Indeed, for all messages the goal to remove the SNP from government was more so inferred than the goal to punish them, and the goal to focus on improving the country was more so inferred than the goal to reverse the policies introduced by the SNP. Like Study 1, these findings do not clearly provide evidence in favour of our expectation that hope and nostalgia communication could increase perceived cognitive polarisation.

In sum, Study 2 aimed to replicate the effects found in Study 1, but across the board, we found differences in how participants responded to anger, disgust, hope, and nostalgia communication. We found a more diffuse picture for emotional contagion compared to the disgust message effects we found in Study 1. We found effects for the anger and disgust messages rather than the nostalgia message for goal inferences, but that did not lead to a different pattern of goal inferences. Indeed, the only similar result we found across the studies was that, similar to the findings regarding support in Chapters 2 and 3, emotion messages do not seem to affect polarisation in society.

## GENERAL DISCUSSION

The aim of the current research was to examine the effects of four emotion messages, specifically, anger, disgust, hope, and nostalgia ones, on opposition voters' affective and perceived cognitive political polarisation (Simon et al., 2019; Wilson et al., 2020). We hypothesised that affective polarisation would increase as a function of the communication of anger and disgust messages and speculated that hope and nostalgia messages might increase perceived cognitive polarisation. Lastly, we considered how any changes may have come about via the processes of emotional contagion (Hatfield et al., 1993; 2014), or goal inference (Fridlund, 1994; Van Kleef, 2009), a structure adapted from the emotions; as-social-information model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010). Adding to our hypothesis and speculation, we believed that effects of anger and disgust communication on affective polarisation would be more likely via emotional contagion, and the effects of hope and nostalgia communication on perceived cognitive polarisation would be more likely via goal inferences.

In two studies (total $N = 535$) among opposition voters, done in the Netherlands and Scotland, and with two different issues at their centre (NL: corona pandemic; Scotland: UK independence), we found no consistent evidence for our hypothesis and speculation that

emotion messages affected polarisation. Thus, *pathos* did not divide. However, we did find that people reacted psychologically towards them — unfortunately, across the two studies with different contexts, these results were rather inconsistent, except for how easily people picked up the nostalgic state of the message writer.

To illustrate this complexity, Study 1 showed distinct emotional contagion effects for disgust (increase the experience of anger and disgust, decreases the experience of hope and nostalgia) and distinct inference effects for the nostalgia message (less extreme towards the government and more past-oriented policy preferences). Study 2 showed a greater effect for the anger message regarding (negative) emotional contagion, whilst the effects for the other messages were less clear. Here, appraisals were also affected, with the negative emotion messages increasing punitive and blaming appraisals. Indeed, this finding provided the most support for our hypothesis that affective polarisation may be increased using anger and disgust messages. However, the found effects were more diffuse than we had expected (anger and disgust messages increased both anger and disgust, hope, and nostalgia messages increased their own experiences slightly), and ultimately did not affect the affective polarisation measures.

Regarding goal inferences, both the anger and disgust messages, and disgust message most clearly so, communicated more punitive and regressive goal intentions, whilst the hope and nostalgia messages were more similar and less extreme in their communicated goals, but all messages led to the same pattern of goal inferences. These findings, together with the ones from Study 1, were not in favour of our speculation that hope and nostalgia communication could increase perceived cognitive polarisation via goal inference changes. Lastly, Study 2 also revealed that the disgust message was deemed less persuasive and mobilising than the other messages, consistent with our previous work on political emotion communication (see Chapter 2). We discuss below how we interpret our findings and then what the implications are for theory and research on polarisation and the communication of emotions.

**Interpretation of the key findings**

The central finding of the presented studies is that polarisation was not affected by emotion messages. This finding falls in line with the general trend we found in the studies of Chapter 2 and 3, where the main aim of each of the presented messages – increasing support – was not affected by the emotion messages as well. As such, the findings of the current studies again reiterates that it may be rather unlikely that emotion communication alone is powerful enough to affect political beliefs. We do note that previous research has shown that outlining the effects of a single message or action embedded within a larger research context full of political messages (i.e., during an election cycle) often is difficult, resulting in null effects (Zaller, 1996). Nevertheless, considering the findings of Chapters 2 and 3, we believe these findings speak against the idea that emotion communication directly and strongly influences political outcomes such as polarisation.

Another interesting finding was the co-occurrence of both emotional contagion and goal inference. We previously found that goal inference was the primary response to emotion messages (see Chapters 2 and 3). There may be at least two reasons for this difference: the lower personal stakes participants experienced when reading the message, and the possible connection the participants may have perceived between them and the communicator. As pointed out in EASI and other persuasion models (Petty & Cacioppo, 1986; Van Kleef, 2017; Wagner & Petty, 2011) when messages or their consequences are not as personally relevant, people may not engage with them as intensely and rely more on heuristic processing. Furthermore, a shared in-group between communicator and the audience also makes emotional contagion more likely (Van der Schalk, 2011). As these messages strongly echoed existing beliefs that many participants may have had (which may contribute to the perception of shared in-group) and did not ask people for specific support for any one cause other than voting against the government (which was the intention of participants) people have relied more on heuristic and affective processing of the message. In sum, the contexts of the current studies may have been an important factor in explaining why emotional contagion did occur.

**Theoretical and practical implications**

The current research has a number of practical and theoretical implications. First, our findings show that emotion communication may not be as directly a driver of political polarisation as previously believed. Indeed, within increasingly polarised political societies (Abramowitz & Webster, 2016; Pew, 2014) laypeople, political pundits (Alcorn, 2014; Davies, 2016; Dunt, 2016), and researchers alike (e.g., Iyengar et al., 2012; Prinz et al., 2021) have considered the role of emotion-focused rhetoric that forgoes facts as a key driver of such polarisation. Instead, we found no evidence that affective or perceived cognitive polarisation was affected by emotion communication, and even that negative, avoidant emotions such as disgust are negatively received by the audience. This suggests that emotion communication may even harm potential persuasion events down the line, even if the audience generally supports the message of the speaker. Overall then, and in line with our previous chapters, and previous research on the ineffectiveness of negative campaigning (i.e., Banda & Windett, 2016; Carraro et al., 2010; Catellani & Bertolotti, 2014), the findings of the current studies suggest that it may be rather unlikely that the observed increase in political polarisation in western societies is due to the communication of negative emotions like anger or disgust.

Second, the occurrence of emotional contagion, in light of it not occurring in the previous chapters, further highlights how important the research and political context is for determining whether emotions can blindly sway people. Indeed, the core of the popular lay theory of post-truth politics (Alcorn, 2014; Davies, 2016; Dunt, 2016), is the assumption that emotion communication can outperform arguments because people blindly follow emotional communicators. However, we only found emotional contagion (i.e., being blindly swayed) to occur in the present studies, in which the conditions for it to happen were optimal, as we noted above. Overall then, this finding highlights the complexity of effective emotion

communication in political contexts, as only in very specific circumstances, emotion messages may directly affect the emotional state of the user (without affecting the actual polarisation measures), as assumed by the lay theory of post-truth politics.

Lastly, across the board, the differences in the effects on the psychological variables further highlights the context-dependency of emotion communication. Indeed, the corona pandemic contexts of Study 1 may explain why the nostalgia message may have had such an effect on the inferred goals, as the main concern of many people may have been to return to normalcy of the pre-corona period. Similarly, the situation with the SNP in Study 2, where there was no clear different past to long for, or a relatively consistent future to hope for (as independence from the UK cannot wholly be determined by the Scottish government), may have worked well with anger and disgust of the message, explaining the more extreme stances inferred. In sum, and similar to our previously raised points, this finding of inconsistency across political contexts highlights, in our view, how dependent emotion communication is on the political context, and therefore how unlikely it is that *pathos*, in and of itself, polarises modern western societies.

**Future research**

The present research opens up a number of avenues for future research. First, when considering the psychological effects of emotion messages on political sympathisers and the lack of effects on polarisation, one interesting area of study is the effect of repeated exposure to emotion messages *over time*. For instance, the increased perceptions of the out-group as more negative as a result of anger and disgust communication in Study 2 may lead to more polarisation over time. Indeed, previous studies utilising repeated measurements have shown how important predictors for political behaviour, such as politicised identity, can change during and after election times (Turner-Zwinkels et al., 2015). Future research could examine the long-term effects of specific emotion messages on polarisation both experimentally, asking people to read multiple emotion messages over time, and quasi-experimentally, coding for specific emotions used by candidates during a campaign cycle and correlating public opinion with these codes (see for instance Simon & Jerit, 2007, examining how political discourse affected public opinion regarding abortion over time) .

Second, future research could focus on the effects of emotion communication in polarising messages when they communicate towards individuals who disagree with the communicator (i.e., government sympathisers). Indeed, the current study already showed that some communicated emotions, like disgust, may have negative effects on support down the line. Consequently, when communicating emotions to a group that disagrees, it may be that polarisation in society could still increase, but now because these messages reflect negatively on the communicator. In line with research on direct and indirect effects (Catellani & Bertolotti, 2014), government sympathisers may infer something different from these emotion messages than the goals the sender would like a government to have: a blatant, non-constructive critique of and attack on the establishment. Indeed, as persuasion requires an

audience to reconsider their position, the stakes for such an attempt are higher, which would also encourage more cognitive and presumably critical evaluation of the message (Petty & Cacioppo, 1986; Van Kleef, 2017; Wagner & Petty, 2011). By attributing bad faith intentions to a sender, polarisation may increase, but with the opposition now being perceived more negatively. In sum, future research may focus on groups with different ideological backgrounds to consider how emotion messages in polarising messages may lead to greater polarisation via backfiring on the communicator.

**Strengths and limitations**

The research designs employed in the current studies had a number of strengths and limitations to them. We used a similar set-up in both studies, allowing us to test for converging evidence of the effects of emotion messages on political polarisation whilst comparing different countries and contexts. We also used different political contexts across the studies. Further, we improved one of the main complicating factors of the first study by focusing on a more clear-cut issue in our second study. The use of our own manipulation texts allowed us to more precisely manipulate what emotion was conveyed without changing the core, underlying point of the message, which would not have been possible if we had used existing texts.

On the other hand, the studies have their limitations. First, our choice to focus on the opposition, whilst leading to a clear out-group in the form of the government to consider for polarisation, led to us having participants with opposing political ideologies in our samples. As we noted in Study 1, existing beliefs may have interacted with how individuals reacted to emotion messages and minimised their polarising effects. However, this diversity of possible pre-existing beliefs present in the sample regarding the topic could interact with the messages (i.e., varying ranges of agreement regarding the topic and the direction that things should go). As such, we cannot specify exactly how (in)effective emotion messages are, and whether the null findings of our study would be true in any case when communicating to an audience who sympathises with the communicator, or whether this is simply due to the pre-existing beliefs in the sample overruling any effects of the message. Future studies could examine political contexts in which the opposition is less politically divided (i.e., the USA, the UK as a whole), or could focus on samples without strong pre-existing beliefs (for instance by sampling at the beginning of an election cycle) to get a better view of whether and how existing beliefs and convictions could affect the polarising effects of emotion communication.

Furthermore, the employed text-based methods of communicating emotions, whilst allowing for strict control of the emotional content of the message, and minimising the chance of introducing noise that could muddle potential effects, also minimised the range of how emotions could be communicated. The limited range of affective displays may reduce the amount of nuance that could be used in emotion communication, potentially leading to the perception that the communicator is too emotional, and negatively affecting the persuasion attempt. Future research could use richer stimulus materials to see if nuance created through

using less heavy-handed (non-verbal) emotion cues could lead to different results. An added benefit would be that such materials would also fit with more modern ways of political communication (e.g., videos on social media), thus adding to the generalisability of the results found in the current research.

## CONCLUSION

Moving beyond Chapters 2 and 3 of the current thesis, the studies presented in the last empirical chapter of this thesis aimed to uncover whether and how the use of anger, disgust, hope, and nostalgia messages could affect affective or perceived cognitive polarisation through either affective (emotional contagion) or cognitive (goal inference) means. Across two studies, conducted in two different countries and with two different studies, we found no evidence for our hypothesis that *pathos* divides, counter to claims made in recent years by political pundits and laypeople revolving around ideas of a post-truth political age. However, in line with the previous chapters, we did find evidence that emotional states, appraisals, and goal inferences occurred as a function of these messages, and that people seemed very sensitive to attending to the specific context in responding to the anger, disgust, hope, and nostalgia messages. This opens the way for further research to investigate in more complex ways how *pathos* — the use of these emotions in political communication — may, also in the long run and amidst campaign dynamics, affect the hearts and minds of those who oppose the government.

4

# Chapter 5

General discussion

The aim of this thesis was to test a lay theory that had come about in the wake of the geo-political events of 2016, when, surprisingly to many western political pundits and political communicators, the Pro-Brexit campaign and the presidential campaign of Donald Trump found success. A lay theory was that we entered a "post-truth" political age, in which emotions were more important than verifiable facts to garner political support (Alcorn, 2014; Davies, 2016; Dunt, 2016).

We connected this broader societal question with philosophical and (social) psychological work on the power of emotions in communication (i.e., Aristotle's notion of *pathos* (ca. 350 B.C.E./1984), and the notion of emotions-as-social-information (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010)), which revealed potential psychological mechanisms through which communicated emotions could influence people. However, we also observed a gap in empirical knowledge about whether and how communicating distinct positive or negative emotions would affect people in specific political contexts.

To explore whether *pathos* unites and divides, we designed three series of experimental studies to systematically flesh out the added value of communicating a specific emotion (i.e., anger, disgust, hope, nostalgia) to increase political support or societal division. Below we summarise the core findings in terms of answers to the key research questions of whether and how the communication of anger, disgust, hope, and nostalgia affects increases political support and polarisation in society.

## SUMMARY OF CORE FINDINGS

We reformulated a number of the assumptions underlying the "post-truth" lay theory into the main thesis questions: Does the communication of specific emotions significantly affect political support for an emotional communicator or affect polarisation in the audience, and if so: how? We subdivided these questions into three research questions and addressed one in each chapter. In **Chapter 2**, we focused on the following research question of whether, and if so how, the communication of *anger* and *disgust* affected political support. In five studies (total $N = 907$), three with a liberal audience and two with a conservative one, we found no evidence that such negative emotion communication increased the support for the communicator. Furthermore, the communication of disgust, which communicated radical action and smearing goals more so than anger communication, was even considered inappropriate and too extreme, to the point it may even backfired on support. These findings diverge from the lay theory, highlighting that (1) the communication of negative emotions does not automatically, in and of itself, lead to an increase in support for the speaker, and that (2) the use of particularly negative emotions such as disgust could even backfire. At the same time, we found that including these emotions in a political message did have psychological consequences. Across the studies, quite sizeable effects of the manipulation on the specific goal inferences people made were present, with both negative emotions being understood as implying different, more negative intentions, but the disgust message most prominently so

(as compared to neutral communication). As such, *pathos* did not increase support but led people to make inferences about the political aims of the communicator.

In **Chapter 3,** we focused on the research question of whether, and if so how, the communication of *hope* and *nostalgia* affected political support. In three studies (total $N = 430$), two focused on liberals and one on conservatives, we found that nostalgia communication was unique from hope and non-emotion communication in both how easily it was perceived, and how it affected goal inferences and contagion. Specifically, nostalgia communication led to greater inferences of goals pertaining to returning to how the system was, as well as changes in people's appraisal of the situation so to consider the past as more distant, and the present as less changeable compared to the hope and non-emotion messages. These effects are meaningfully related to the broader emotional theme behind nostalgia, suggesting that nostalgia communication is effective in shaping the hearts and minds of audiences. Ultimately however, the emotion messages, including the nostalgia message, did not affect political support. So again we found that *pathos* did not increase support but led people to make inferences about the political aims of the communicator, and could affect their emotional state.

Together, then, the findings of Chapter 2 and 3 suggest that emotion communication does not directly affect political support, and that the lay theory of post-truth politics may not hold much scientific validity — people certainly do not seem to blindly follow emotional calls from politicians, according to our data at least. However, we do observe that people responded to *pathos*: For both the communication of anger and disgust, and hope and nostalgia, people responded with inference (primarily), and sometimes also with contagion. Indeed then, the key message from these studies is that, rather than blindly following the emotions expressed by the communicator, people seem to be actively inferring (social) information, in terms of intentions and meaning behind the emotion message, even if this does not directly lead to changes in their support.

Lastly, in **Chapter 4**, we asked whether the communication of all four previously examined emotions, and if so how, affected political polarisation. Indeed, both support and polarisation in society may be outcomes of presumed political post-truth paradigm in which emotions, rather than facts, bind and divide. However, little was known about this. In Chapter 4, we therefore built on Chapters 2 and 3 by focusing on our third research question of what the effects of anger, disgust, hope, and nostalgia communication might be on affective and perceived cognitive polarisation in society. In two experimental studies (total $N = 535$) focusing on opposition voters run in The Netherlands and Scotland during election times, we again found no evidence to suggest that the communication of the four emotions directly affected political polarisation. Indeed, consistent with the previous chapters, *pathos* did not polarise, but did once more affect inference and contagion processes in both studies (for nostalgia and disgust), although these effects were less consistent across the two political contexts than in the previous chapters.

Specifically, in the Dutch study there were some clear indices of emotional contagion, where the *disgust* message elicited negative emotions, the *hope* message hope, and the *nostalgia* message nostalgia. Moreover, the nostalgia message also led to the *inference* of goals such as wanting reparations from (rather than removal of) the government, compared to the other messages. In the Scottish study, however, we observed diffuse effects from all messages on emotional contagion, though the effects for *anger* were the clearest. Furthermore, we also found clearer, but ultimately inconsequential effects of *disgust* communication on goal inference. Indeed, the lack of effects on polarisation, the context-dependency of the results, and the finding that emotional contagion only occurred when taking into consideration a host contextual information once again reveal a portrait of people who actively infer and feel in response to emotion communication, but who are not blindly swayed by it.

Overall then, the evidence presented in the empirical core of this thesis leads to two *conclusions*, relating to the two aspects of our main thesis questions (Does the communication of specific emotions significantly affect political support for an emotional communicator or affect polarisation in the audience, and if so: how?). The first conclusion, relating to the "does" part, is that the communication of emotions in political speech does *not* seem to have clear effects on garnering political support, or on increasing political polarisation. *Pathos* did neither lead to support or polarisation.

The second conclusion, relating to the "how" part, is that adding emotion to political messages certainly adds something distinct and meaningful, and consistently affects the psychological state, both emotionally and cognitively, of the audience. Such effects, however, seem more nuanced and in need of contextual tailoring than the lay theory of post-truth politics seems to offer. Specifically, we believe the thesis findings provide strong evidence against the lay theory, but also offer a promising direction for future theorising and research on. In the following section, we further explore the results found and our interpretation of them.

## THE EFFECTS OF EMOTION COMMUNICATION IN POLITICAL MESSAGES

Throughout this thesis, we found that emotion communication did not affect political support or polarisation, but did affect goal inference and emotional contagion. Here, we will discuss in turn why we think that emotion communication did not affect support and polarisation, what the specific effects of each communicated emotion was, and why people engaged more in cognitive processing of the message rather than being more emotionally affected by them.

**Why did emotion communication not affect support and polarisation?**
The evidence in this thesis suggests that emotion communication may be ineffective in bringing about change in the two political outcomes we studied. In most of the in total 10

empirical studies *directly* manipulating emotion communication, political support and polarisation were unaffected (with the single exception of a backfiring effect on support as result of the communication of disgust in Chapter 2). As these null findings were so ubiquitous, it stands to reason, counter to the popular lay theory of post-truth politics, that emotion communication is an ineffectual method of achieving political outcomes such as increased support or polarisation. Nevertheless, we will consider two additional reasons that may have also affected the persuasiveness and polarising effects of the emotion messages.

First, participants in our studies may already have had strong beliefs and preferences about specific parties or politicians, which minimised the potential sway that the presented messages could have. Indeed, previous research indicated this embeddedness in the social context as a key reason for why social science research has difficulty in specifying the effects of any single advertisement or campaign act (Zaller, 1996). As we used existing, contextualised political scenarios, people may have had strong preferences towards certain parties and their agendas. It is likely that a single instance of emotion communication could not undo or strengthen the attitude that has been formed over time. However, we also note that this explanation may not fully account for the null effects across this thesis, and perhaps is only applicable to the findings of Chapter 4, where we sampled already declared voters at the end of an election cycle. At most then, we could only argue that emotion communication may have even less effects when there are other, existing beliefs and considerations already at play.

Second, the conservative communication contexts of the current studies may have had a negative effect on the messages' effects on support and polarisation. Indeed, as previous research on persuasion, charisma, and mass communication has shown, perceptions of the source of a message and feedback from others can greatly affect the persuasiveness of and reactions to (political) messages (Antonakis, 2012; Parkinson, 2019; Petty & Cacioppo, 1986; Suhay, 2015). This also fits with the third important sense of *ethos* that Aristotle highlighted, namely the importance of the leader's character (ca. 350 B.C.E./1984). Furthermore, previous research has shown that salient similarities can influence audience members' reactions to messages of unfairness (Gordijn et al., 2006), which was also claimed in many of our manipulation messages. In our studies, participants were blind to the identity of communicator and to what extent they similar to them, and to whether the opinion presented in the piece was one that was generally accepted or not. As one of the main findings in our thesis is that people do not blindly follow the message put in front of them, but actively infer additional information from social cues such as the expressed emotion in the message to guide their reaction, it is not unlikely that the simplistic communication context minimised the effects of emotion communication. Without knowing much about the communicator or the general perception of the message, it may have been difficult for people to judge whether the emotional reactions they experienced, or the goals they inferred were reasonable for the situation, or even practically feasible. Nevertheless, if this reason holds true, it again

highlights how important additional information is for emotion communication to successfully change political support and polarisation.

Altogether, whilst we believe that the general null findings found on political support and polarisation showcase that emotion communication is an ineffectual method of increasing political support and polarisation, they may have been partially due to the research samples and contexts of our studies. Nevertheless, our studies do speak against the popular notion that we live in a post-truth political age, and the suggested context-dependency of emotion communication explicitly speaks against the notion that it can be considered an easy method for any communicator to change the hearts and minds of people.

### How did anger, disgust, hope, and nostalgia affect contagion and inference?

Whilst we did not find that emotion communication affected political support or polarisation, we found, throughout this thesis, that anger, disgust, hope, and nostalgia messages influenced the emotional state, cognitive appraisals, and goal inferences of the participants in our studies. Here, we examine for each of the emotion messages what the effects were on emotional contagion and goal inference, and examine how each is distinct from and similar to the other.

When examining the anger and disgust messages, it became apparent that a large part of their effects may be attributed to a shared nature rather than their unique aspects. This was also evident from the correlations in relevant chapters (all $r > .64$ for perceived and experienced anger and disgust). A semi-convergent effect, with similar effects for the emotions but sometimes more extreme ones for disgust, was found throughout the effects described in the chapters: It was often the case that both the anger and disgust message led to perceptions of both emotions, although the disgust message was slightly more unique. Both anger and disgust messages were at times seen as less appropriate and more extreme than the non-emotion message, but disgust more consistently and more strongly so. Disgust communication was also considered less persuasive and mobilising, whilst anger communication was not different from non-emotion and positive emotion messages. Looking at the contagion effects, both messages induced negative emotions and appraisals of the situation, but only when compared to the positive emotions in Chapter 4. Lastly, for the inference effects, both emotions tended to produce inferences of more negative, avoidant goals such wanting to engage in radical action, smearing the opponent and removing or punishing the current people in charge, but disgust did so most clearly.

Overall then, this suggests that when confronted with anger and disgust communication, people may generally react more to the similarities between these emotions, such as negative valence or medium-to-high level of arousal (Russell, 1980). However, even within those categories, some differentiation may still be made, but that does not necessarily correlate with the large theoretical differences that exist between the two emotions (i.e., disgust as avoidant and anger as approach, Kuppens et al., 2007; Roseman, 2001; Rozin et al., 1999; Van Mechelen & Hennes, 2009; anger as potentially a constructive force, Carver & Harmon-Jones, 2009; De Vos et al., 2013; 2018; Pennekamp et al., 2007). Indeed, in our studies

regarding *political* communication, anger may perhaps be best understood as a weaker version of more extreme avoidant emotions such as disgust, with similar psychological effects. This suggests that in the complexity of emotional political speech, the distinction between communicating anger and disgust may boil down more to a difference in strength, rather than to a difference in kind.

Conversely, we found that the effects of communicating hope and nostalgia were less similar than the effects of communicating anger and disgust. Although both the hope and nostalgia message communicated hope and nostalgia, each emotion message communicated a different temporal focus. Furthermore, of all four emotions we studied, nostalgia seemed the easiest to be recognised as a distinctly communicated emotion. Both the hope and nostalgia message were generally perceived as rather persuasive and mobilising compared to the disgust message. Considering emotional contagion, the hope and nostalgia messages did have a greater effect on the audience's emotions and cognitions, in particular the nostalgia one. Across chapters, this message induced nostalgia, and in Chapter 3, it lowered the appraisals traditionally related to hope. For the inference effects, the distinctiveness of nostalgia was also apparent. In both Chapter 3 and 4, we observed that the communication of nostalgia diverged from the other conditions more often, suggesting less extreme, past-oriented and restorative intentions on behalf of the communicator, whilst hope, in the few cases it is different from the non-emotion or anger and disgust messages, communicates more future-focused, broad goals without much specification.

All in all, our findings suggested that whereas hope communication most resembled non-emotion communication, nostalgia was unique in its distinctiveness, changes to emotion and cognition, and the goals it communicated. These effects fit with the theoretical background of these emotions. First, hope is felt when a belief is held that some action can lead to betterment of the current situation (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019), but this was an inherent feature in all messages, as they all were calls for support and change, meaning that hope may have been too vague an addition to the message to have any clear effects. Second, the nostalgia message, with its clear, bittersweet focus on a better past (Sedikides et al., 2008; van Tilburg et al., 2019) breaks with the inherent forward momentum of a call to support, which may explain why it is more easily recognised and influential in changing the hearts and mind of the audience. However, it should be noted that perhaps the clearest difference between these emotions is their temporal orientation, and that in some cases, even this was overshadowed (i.e., the hope message leading to increases in the inference of some past-oriented goals in Chapter 3).

Taken together, these findings for each emotion suggest that, in the highly contextualised political settings that we embedded our studies in, the effects of emotion communication may perhaps be determined by the more general dimensions differentiating emotions, such as the emotion valence, arousal level or temporal orientation. Conversely, the precise theoretical nuances, such as anger being seen as more constructive (i.e., De Vos et al., 2013; 2018), or

hope increasing creativity or planning (Snyder, 2002) may be less likely to shine through, unless perhaps when this is very explicitly communicated.

**More inference than contagion?**

As outlined above, without affecting support or polarisation, the messages did affect the mechanisms of emotional contagion and goal inference. One key conclusion in this respect is that, throughout the thesis, the cognitive processes (both goal inferences and changed appraisals) seemed more dominant in response to emotion communication than the pure emotional contagion process (i.e., communicated emotion leads to more felt emotion). Here, we will first briefly consider the found disconnect between the cognitive appraisals and experienced emotions, we which had initially considered both the be part of the emotional contagion pathway, before considering why the cognitive reactions were more common than the emotional ones.

As noted, we had expected that, in line with emotions-as-a-syndrome perspective of emotions (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985), subjective experience changes and cognitive appraisal changes would go hand-in-hand. However, we saw that in a number of cases, these two aspects of emotions were affected independently, suggesting that personal emotional cognitions and subjective experiences can be affected separately by emotion communication. Such evidence of loose connections between the different aspects of emotions has been shown before (e.g., Kuppens & Tong, 2010; Nezlek et al., 2008), and has prompted critique on appraisal theories for the assumed rigid link between all emotion components (Kuppens, 2013). Nevertheless, we will consider the findings of more effects on the appraisals and inferences rather than the subjective experiences of emotion as generally indicative that people engaged more cognitively with the emotion messages rather than emotionally.

When considering why cognitive reactions to emotion communication might be more prevalent than emotional ones, we can offer at least two reasons. On the one hand, meaning-making and cognitive processing is more likely to occur after an event that is considered uncommon or surprising (Bartholow et al., 2001; Foster & Keane, 2013; Jerónimo et al., 2017), and overt emotional speech may well be classified as such. Indeed, the recent lay theory of post-truth politics emerged to explain surprising campaign victories, suggesting that overt emotionality as present in those campaigns in political contexts is still an unexpected sight. Therefore, the surprise of the emotional speech may have kickstarted more cognitive processing on the part of the audience.

On the other hand, the circumstances the participants were in may also have favoured cognitive processing. As outlined in EASI and other persuasion models, cognitive processing is more likely when participants have high motivation as the issue is personally relevant and experience low cognitive load (Petty & Cacioppo, 1986; Van Kleef, 2017; Wagner & Petty, 2011). The contexts and issues of the studies were all chosen so that they would resonate with the participants in an attempt to increase the chance of honest participation, but at the

same time, this may have invited more scrutiny in their reactions to the emotion messages. The communicator asking for support may have increased the perception of the issue as personally relevant, as pledging support can have a wide range of consequences. Furthermore, as participants did not have a time limit to complete the survey and could do so at any time, it is likely that they did not experience excessive cognitive load. Indeed, in Chapter 4, where it could be reasoned these practical issues were the least present (no support asking, stronger alignment emotions/goals of sample and communicator), we saw the most effects of emotional contagion. Overall then, it may be that for a host of real-life situations, cognitive processing is the norm with regards to reacting to emotional political communication, as discussed topics are personally relevant to the audience, and political speech is still generally expected to be rather neutral in tone.

Ultimately, this finding of inference and appraisal changes over changes in emotional experience also fits with the more general conclusion we drew regarding the veracity of the lay theory of the post-truth political age in light of the null effects on support and polarisation. Inherent in this lay theory is the assumption that people are easily swayed by emotional rhetoric, and will lend support to the most vocal, emotional speaker. However, the findings of this thesis paint a different picture: people, when considering who to politically support or what to believe about political opponents, actively engage with communicated emotions and use them to gain a greater understanding of the communicator's intentions. As such, the prominence of goal inferences throughout our studies provides additional evidence against the lay theory of post-truth politics.

## IMPLICATIONS, FUTURE DIRECTIONS, AND EMPIRICAL STRENGTHS AND LIMITATIONS

### Theoretical implications

The findings of this thesis have a number of theoretical implications regarding the literature on the nature and distinctiveness of emotions, the role of cognitive appraisals in emotion communication, the importance of investigating positive emotions, and the differences between liberals and conservatives. We will go over these implications in turn below.

First, the findings of this thesis highlight how, in practical situations where there is a multitude of information and concerns regarding the potential outcomes of a choice, the fine-grained distinction between emotions and the differential effects they should have as a result of those distinction is less important than the general valence, arousal or temporal orientation of the emotion. The EASI model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010) we have utilised throughout this thesis built on knowledge from appraisal theories (i.e., Roseman 2001, Van Tilburg, 2019) and the emotions-as-a-syndrome framework (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985). These theories consider emotions as a unique collection of subjective experiences, cognitive appraisals, and behavioural intentions. As such, we had anticipated for each communicated

emotion what unique cognitive appraisals and inferred goals would follow. However, as we have seen throughout the thesis, and in particular in Chapter 2 with the negative emotion messages, emotions that should theoretically have different appraisals or perceived intentions associated with them produced similar results. As such, the framework that EASI presents is useful for ordering potential responses to emotion communication, but the underlying appraisal theories that inform the specific reactions to each emotion may be less precise in the highly contextualised real-life political settings in which our studies were set.

Second, and related to the first point, the findings of this thesis show that in such settings involving emotion communication, the theoretical link between the three aspects of each emotion as outlined by the emotions-as-a-syndrome framework (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985) may not be present, and that cognitive appraisal changes may represent an additional persuasion pathway for the EASI model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010). We found multiple times that the experience of emotion and a change in the cognitive appraisals did not co-occur as theoretically predicted, but rather that only one of the two changed. As such, our findings are in line with critiques on the rigidity of the syndrome framework (Kuppens et al., 2013), and provide additional support for developing theories aimed at explaining how context information and individual difference variables interact to explain when and why situations may lead to appraisal and emotion changes (Kuppens & Tong, 2010).

Third, the findings of this thesis highlight the importance of investigating positive emotions, and in particular nostalgia, and their role in inspiring political behaviour and change. We saw that the nostalgia message had the largest effect on the audience. This finding goes against the idea that negative emotions are often more influential than positive ones (Baumeister et al., 2001). This preponderance of the power of negative emotions is also found in research done in the political psychology and emotion communication fields (e.g., anger and anxiety in Affective Intelligence Theory, Marcus et al., 2000; 2011; 2019; disgust in moralisation of political issues; Wisneski & Skitka, 2017; anger in negotiation; Van Kleef et al., 2004; sadness, fear, and contempt in intergroup communication, Sasse et al., 2018). With the findings of the current thesis, we show how positive emotions can have unique effects that may ultimately even lead to real-life political change, and thus contribute to the small, but growing field showcasing the practical importance of positive emotions (see also Cohen-Chen et al., 2015; Halperin, 2015; Smeekes et al., 2018; Smeekes & Verkuyten, 2015).

Fourth and lastly, the findings of the studies in Chapters 2 and 3 show that, in the context of responding to *pathos*, the theoretical differences between liberals and conservatives are much less present in highly contextualised research settings where people have to make a decision regarding who to support. Much research has focused on the differences in the emotional and moral natures of liberals and conservatives (Graham et al., 2009; Feinberg & Willer, 2013; 2015; 2019; Inbar et al., 2009; Iyer et al., 2012; Nelson & Garst, 2005; Terrizzi et al., 2013), suggesting that entire emotional dictionaries would exist for the different ends

of the political spectrum. However, the findings of this thesis may suggest otherwise with respect to responding to *pathos*, with large similarities across the studies in how liberals and conservatives responded to emotion messages. In this sense, our findings may dovetail with research that shows liberals and conservatives judge potential political leaders on a similar set of moral criteria (Frimer et al., 2013).

**Practical implications**

The findings of this thesis have a number of potential implications for parties involved in political communication. Here we will carefully consider the general effectiveness of emotion communication in political contexts, speculate about what emotion messages may require to be successful in garnering support or increasing polarisation, and revisit the question of how certain campaigns that used emotion communication achieved success. We think it is also important to note that caution is warranted in interpreting our findings directly to the practice of emotion communication in a political context — in fact, our findings show the importance of considering the complexity of the context in order for emotion communication to be effective — a rather important practical implication of our findings.

First, in the most general sense, the findings of this thesis highlight how, counter to the lay theory that we are living in a post-truth political age (Alcorn, 2014; Davies, 2016; Dunt, 2016), relying on emotional speech is not a sure-fire way of achieving political support or sowing political division. We found no evidence that political support or polarisation are affected by emotion communication. Furthermore, we found that people actively engage with emotion messages, using the communicated emotions to infer additional information about the situation and the goals of the communicator. Ultimately, the only general conclusion that we seem to be able to make is that some forms of emotion communication, such as disgust, are best *avoided*, as it is seen as less appropriate, less persuasive and less mobilising.

Second, we note that, if emotion communication is used, providing additional information may be an important step. As seen in Chapter 2 and 4, anger communication may be perceived similarly to disgust communication, which generally should be avoided. As such, providing additional information regarding one's goals in order to differentiate clearly from the negative goals that disgust communicates may be useful. Additionally, as seen in Chapter 3, when using hope or nostalgia communication, making explicit the intention to create a new system that is governed by old values, instead of wanting to return to the old system completely may be useful to maximise the persuasive potential of the message. Ultimately, and much like our previous point then, simply trusting in emotion communication per se is unlikely to result in effective persuasion or polarisation attempts.

Third, and last, considering the (lack of) effects on the political outcome variables and the general complexity in understanding the effects of emotion communication, the question remains of how some campaigns that used emotional speech were able to find success. We argue that this may be because these campaigns highlighted problems and concerns felt by many people. Additionally, we believe the lay theory of post-truth politics to be a reactionary

coping mechanism created by those who did not share the sentiments of the campaigns and those who voted for them. Indeed, political action (and collective action in general) has been shown to be impacted to large extent by moral concerns (Skitka & Morgan, 2014, Van Zomeren et al., 2012), and one defining feature of moral beliefs is that they feel factual in nature (Skitka, 2010). Those who shared the values of the politicians of these campaigns may have finally found a political party or entity who finally "said the things like they were." On the other hand, those who did not share the campaigns' values may have focused purely on the facts and errors that these campaigns presented, foregoing the actual concerns that these campaigns addressed. Indeed, this blindness to the moral values, concerns and motivations of out-groups has been noted in psychological research as the moral empathy gap (Ditto & Koleva, 2011). As such, this thesis shows that *pathos* is not a simple trick to convince large groups of voters to offer their support, and that to understand why political underdogs can win, an open-minded examination of voters' beliefs and values is needed.

**Future directions**
With this thesis, we have provided a new piece to the puzzle of what constitutes sometimes persuasive and sometimes polarising political communication. We have used text-based manipulations, managing different communicated emotions, and have shown that emotional language may not be a sure-fire, directly effective method to achieve one's political goals, but does significantly psychologically affect the audience. Starting from this base, we offer a number of suggestions and adaptations to our research that may serve as new avenues to explore for those interested in the field of (emotional) political communication.

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First, future research may focus on the effectiveness of mixed emotion messages. That is to say, instead of focusing on the communication of a single emotion, future research could look at what would happen if emotion and explicit information are presented jointly in a message. As we saw in Chapter 2, anger could be mistaken for a weaker form of disgust, which generally had negative effects on the participants. Therefore, using explicit information that rebukes the negative inferences that anger communication may cause if mistaken for disgust (i.e., the goal to smear political opponents) may be way to ensure the positive effects that are associated with anger (Carver & Harmon-Jones, 2009; De Vos et al., 2013; 2018; Pennekamp et al., 2007). Similarly, in Chapter 3, we saw that the nostalgia message led to effects that both positively (i.e., the goal to restore old values) and negatively (i.e., decreasing the perception that the situation could be changed) correlated with support. Supplementing such a message with information that counteracts such negative effects may make the nostalgia message more effective in achieving change. Future research could examine such mixed emotion messages to see if they do directly affect political outcomes such as support and polarisation.

Second, and related to one of the possible reasons we mentioned for why we found no direct effects, future research could systematically examine the effects of the communication context on emotion communication. For instance, future studies could make use of known

political figures to ascribe emotion communication to, in order to examine what the effects of proven record of political success and failure may do to persuasiveness or polarising effects of an emotion message. Similarly, investigating the effects in more mass communication contexts, where there is more interaction between audience members, may highlight the importance of a shared in-group, shared behaviour, and shared (dis)approval of emotion messages (Parkinson, 2019; Suhay, 2015; Van der Schalk, 2011), and lead to different effects of emotion communication, such as greater emotional contagion. Indeed, the interaction between *ethos* and *pathos* (Aristotle, ca. 350 B.C.E./1984) may prove to be a fruitful area for new research.

Third, and last, another interesting area of research would be the use of different samples, chosen not for their political ideology, but rather than conviction towards the discussed issue. Indeed, based on the research highlighting the link between morality and emotion (Haidt, 2007; Rozin et al., 1999; Russell et al., 2013; Ugazio et al., 2012), it would stand to reason that the use of emotion communication may fit better when speaking to individuals who are strongly convicted regarding their political opinion. Indeed, because emotions may run high amongst these convicted samples, a speaker that displays emotion in their speech may be consider more authentic and as prototypical of the type of people that should be part of the in-group, which may also afford them greater persuasiveness, in line with research on the social identity theory of leadership (Hogg et al., 2012). Future research could examine how emotion communication aimed at morally convicted samples may be more effective than emotion communication aimed at a more general public.

**Empirical strengths and limitations**

The methodological approach taken in this thesis means that it has unique strengths and limitations, which we will discuss here. First, the consistency of our experimental design, using written posts that focused on individual emotions and were ostensibly written by political actors, allowed us to test the consistency of the communicative effects of anger, disgust, hope, and nostalgia communication across a range of different contexts. Furthermore, the format aligns closely with real-life political messaging in the modern age, where political actors use written messages on a host of social media platforms. Lastly, we focused on both liberal and conservative samples, answering the call made by others to increase the representation of conservatism in psychological research (Duarte et al., 2015). Together, these strengths allowed us to conclude that *pathos* is not a sure-fire way for garnering political support or increasing political polarisation.

However, we also note a few limitations in our studies, which lower the generalisability of the found effects, but that can inform us on how future studies on the topic of emotion communication in political contexts can be further improved. First, as noted in the beginning of this chapter, we did not account for the existing beliefs of the participants in our studies. However, this may have only hampered the findings in Chapter 4, where the real-life context was more politicised due to the upcoming elections than in Chapter 2 and 3, where we used

a more general, ongoing issue for our context. Nonetheless, as we did not have clear measurements regarding people's precise beliefs regarding each issue, except whether they generally opposed or supported the position of the speaker, it remains unclear to what extent these existing beliefs may have altered the effects of emotion communication. Future studies could examine the effects of existing political beliefs, by either measuring these existing beliefs and possibly controlling for them, or by comparing the differences in effects of emotion communication over an election cycle to see how an increasingly politicised context may affect the effectiveness of emotion communication.

Second, in our operationalisation of emotion communication, we used all aspects of the emotions in order to clearly communicate the specific emotion to the audience. We believe this broad approach maximised the potential for each communicated emotion to affect the audience and would be more in line with how emotion communication would be done in real-life political contexts. However, as we noted, we found that more general dimensions of emotions may be more important in understanding how people react to emotion communication. Ultimately, this broad approach makes it difficult for us to specify which element of the communicated emotions ultimately led to effects we found. Future research could take a step back from this externally generalisable approach in order to consider which elements of emotion communication in political contexts (i.e., explicitly expressing the emotion, use of emotion-specific adjectives, communicated perception of the situation) drive most of the found effects in the studies. This would give a more precise picture of how emotion communication achieves it changes, although it may be less externally generalisable.

Last, and whilst we see the use of both liberal and conservative samples in Chapters 2 and 3 as a strength of this thesis, we note that our ability to compare these two groups was limited, as it was not central to (all of) the studies in this thesis. Indeed, our set-up did not allow for clear statistical analysis and specification of the found similarities between the groups. Furthermore, our focus on understanding emotion communication aimed generally at political sympathisers means that we do not know whether liberal and conservatives always respond similarly to emotion communication, or only if they already a priori agree with the position taken by the communicator. As such, we encourage future research to take an approach to this issue as we did in Chapter 4, where we had both liberals and conservatives agreeing with the same topic and used measures of political ideology to see if there are moderating effects on the reactions to emotion communication.

## CONCLUSION

Do we live in a post-truth political age, one where facts do not matter, and our emotions are the prime contributor to our political thinking and decision making? This question, and an affirmative answer to it, lay at the centre of a lay theory that gained prominence in response to a number of surprising, and to many upsetting, political victories in 2016. This thesis employed systematic, experimental, empirical methods to examine how the communication of emotions may help a communicator garner support and polarise the voting base, and as

such, tried to provide a scientific answer to the central question. Counter to the lay theory, we found that people were not more likely to support an emotional communicator or become more politically polarised after reading their messages.

In fact, people seemed to engage in active cognitive efforts to infer social information as to uncover the goals of emotional speakers, more so than they aligned their own thoughts and emotions with the emotions the communicator expressed. We thus conclude that emotions do not blindly rule in this political age. However, emotion communication does seem to have a role in political contexts by changing how people think and feel about the plans of an emotional communicator, their current political and societal state, and the role other political parties and factions have played in shaping that state. We hope that future research will further explore the complexity of emotion communication for important psychological outcomes and processes such as political support, polarisation, emotional contagion and goal inference.

# Supplementary materials

All the supplementary materials for this thesis can be found online at:

https://doi.org/10.34894/H2REGH

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# Dutch summary

De Westerse politieke wereld heeft in de afgelopen jaren een aantal ontwikkelingen doorstaan die bij velen een ongemakkelijk gevoel hebben opgewekt. Met name in 2016 werden vele politieke commentatoren overrompeld door het succes van campagnes zoals die van het Brexit Leave team en Donald J. Trump. Ondanks dat deze partijen de campagnes (deels) baseerden op "fake news" en "alternative facts" (Morley, 2017; Yuhas, 2016), slaagden ze erin om hun respectievelijke verkiezingen te winnen. Deze specifieke situaties waren verder gepositioneerd in een groeiend aantal zorgen over de toenemende politieke polarisatie in Westerse landen (Abramowitz & Webster, 2016; Pew, 2014). De combinatie van deze groeiende zorgen en kritieke verkiezingen die gedomineerd en gewonnen werden door de kandidaten met de luidste, en niet per se op waarheid beruste, stem leidde wereldwijd tot een lekentheorie dat argumenten ondergeschikt waren geworden aan emoties en dat de Westerse politiek terecht was gekomen in een de zogenaamde "age of post-truth politics" (Alcorn, 2014; Davies, 2016; Dunt, 2016).

In dit proefschrift onderzoeken we de lekentheorie van "post-truth politics". De hoofdvragen van dit proefschrift zijn als volgt: Beïnvloeden gecommuniceerde emoties de politieke steun voor de persoon die ze gebruikt of de polarisatie in de maatschappij, en indien dat zo is: hoe? Wij gaan in dit proefschrift een stap verder dan vorig onderzoek dat heeft aangetoond dat emoties een belangrijke rol spelen in het politiek denken en handelen van kiezers (bijv. Halperin, 2015; Marcus et al, 2000; Smeekes et al, 2018). Geïnspireerd door het concept van *pathos* van de filosoof Aristoteles (ca. 350 B.C.E./1984) focussen wij ons specifiek op de communicatie van emoties. Omdat verschillende reacties mogelijk zijn op gecommuniceerde emoties gebruiken wij het emotions-as-social-information (EASI) model (Van Kleef, 2009; 2010; 2017; Van Kleef et al., 2010) als theoretisch kader om te inventariseren hoe mensen reageren op gecommuniceerde emoties. Volgens dit model kunnen mensen affectief (gevoelsmatig) en cognitief (nadenkend) reageren op gecommuniceerde emoties. Voor de affectieve reactie kijken wij naar het *emotional contagion proces* (Hatfield et al., 1993; Hatfield et al., 2014), een respons waarbij mensen de gecommuniceerde emotie overnemen. Omdat het ervaren van emoties ook onze gedachten beïnvloedt, kunnen gecommuniceerde emoties dus via emotional contagion mogelijke grote effecten hebben op ons politiek denken en handelen. Voor de cognitieve reactie kijken wij naar het *goal inference proces* (Fridlund, 1994; Van Kleef, 2009), een respons waarbij mensen met een kritisch oog kijken naar de emoties in een bericht en hun eigen kennis over de emotie gebruiken om meer informatie te verkrijgen over de persoon die het bericht heeft verstuurd. Wij kijken specifiek naar de intenties en doelen die het publiek afleidt uit de gecommuniceerde emoties, want deze afgeleide informatie kan zeer belangrijk zijn in het vormen van de politieke overtuigingen en keuzes van het publiek.

Met dit theoretisch kader onderzoeken wij in dit proefschrift op systematische wijze hoe mensen reageren op de communicatie van specifieke emoties, en of deze reacties leiden tot veranderingen in het politieke denken van mensen. In Hoofdstuk 2 kijken wij naar de communicatie van woede en walging, en hoe deze twee negatieve emoties effect kunnen

hebben op de politieke steun voor de persoon die de emoties communiceert. In Hoofdstuk 3 blijft de focus op politieke steun, maar kijken we naar de positieve emoties hoop en nostalgie. In Hoofdstuk 4 kijken we naar de effecten van alle vier emoties op politieke polarisatie, het idee dat verschillende politieke groepen in de maatschappij steeds vijandiger tegenover elkaar staan en niet meer in staat zijn om samen te werken. Aan de hand van de bevindingen uit deze drie empirische hoofdstukken kunnen wij een aantal theoretische en praktische implicaties voortdragen, en uiteindelijk concluderen of de lekentheorie van "post-truth politics" op waarheid is gebaseerd.

## WOEDE, WALGING EN POLITIEKE STEUN (HOOFDSTUK 2)

Wanneer gedacht wordt aan de ontstaansredenen van de lekentheorie van "post-truth politics" spreekt het gebruik van negatieve emoties zoals woede en walging in politieke berichten het meest tot de verbeelding. Daarom beginnen we ons onderzoek met het experimenteel testen van de effecten van deze twee emoties. Theoretisch gezien valt er veel te winnen met deze twee emoties, omdat ze vaak worden gelinkt aan morele overtuigingen en waarden (Giner-Sorolla & Chapman, 2017; Kollareth & Russell, 2019; Tetlock et al., 2000), die een belangrijke rol spelen in de politieke overtuigingen van mensen (Morgan et al., 2010; Van Zant & Moore, 2015).

Op basis van het EASI model verwachten wij dat gecommuniceerde emoties op verschillende manieren de interpretatie van en reactie op een bericht kunnen beïnvloeden. Indien emotional contagion zou plaatsvinden, zouden de mensen die de gecommuniceerde emotie zien zelf meer woede of walging voelen, sterker geloven dat hun morele waarden zijn geschonden als de emotie paste bij de waarden die zij als (politieke links of rechtse) groep hebben (Graham et al., 2009; Haidt, 2012; Rozin et al., 1999; Terrizzi et al., 2013), sterker gemotiveerd zijn om de situatie te herstellen (Haidt & Bjorklund, 2008; Skitka, 2010) en daarom de persoon die emoties communiceert meer steunen. Wanneer goal inference zou plaatsvinden, zouden mensen in sterkere mate positieve doelen (zoals samenwerking met de nodige instanties) zoeken achter de gecommuniceerde woede, omdat deze emotie toenadering tot een andere partij promoot (Carver & Harmon-Jones, 2009; De Vos et al., 2013; 2018; Pennekamp et al., 2007). Daartegenover zouden ze in sterkere mate negatieve doelen (zoals het zwartmaken van verantwoordelijke instanties) zoeken achter de gecommuniceerde walging, omdat deze emotie leidt tot meer afstand tussen partijen (Roseman, 2001; Shook et al., 2019). Omdat uit voorgaand onderzoek is gebleken dat negatieve doelen worden afgekeurd (Banda & Windett, 2016; Carraro et al., 2010; Catellani & Bertolotti, 2014), verwachten wij dat berichten met woede zouden leiden tot meer steun dan berichten met walging.

In vijf experimenten (totale $N = 907$) hebben wij onze verwachtingen getest. In de eerste drie studies werden Nederlandse (1a) en Engelse (1b en 2) links-liberale studenten gevraagd berichten te lezen, zogenaamd van een vertegenwoordiger van de studentenvakbond die tegen het verhogen van studiekosten was. In studies 3a en 3b werden Amerikaanse rechts-

conservatieve studenten gevraagd berichten te lezen, zogenaamd van een vertegenwoordiger van een rechtse actiegroep die tegen het verbieden van rechtse sprekers op universiteitscampussen was. Deze berichten hadden wij zo geschreven dat er woede, walging of geen emotie werd gecommuniceerd. In alle studies vonden we dat gecommuniceerde woede en walging niet leidde tot meer steun en dat gecommuniceerde walging soms leidde tot minder steun voor de vertegenwoordiger. Daarnaast vonden we ook dat deelnemers vooral bezig waren met het achterhalen van de doelen van de vertegenwoordigers en niet zomaar de emoties zelf overnamen; er vond dus wel goal inference plaats, maar geen emotional contagion. Ook had de politieke achtergrond van de deelnemers weinig invloed op de gevonden effecten. Deze resultaten laten zien dat, met betrekking tot de communicatie van woede en walging, de lekentheorie van "post-truth politics" niet ondersteund wordt en dat de communicatie van walging zelfs negatieve consequenties kan hebben.

## HOOP, NOSTALGIE EN POLITIEKE STEUN (HOOFDSTUK 3)

Positieve emoties worden steeds vaker gebruikt in politieke contexten. In dit hoofdstuk focussen wij op de communicatie van hoop, de emotie die we voelen wanneer we geloven dat we door actie, zelfs als we niet weten welke, een betere toekomst kunnen bereiken (Chadwick, 2015; Cohen-Chen et al., 2017; Gasper et al., 2019), en nostalgie, de bitterzoete emotie die we voelen wanneer we terugdenken aan een mooi maar verloren verleden (Sedikides et al., 2008; Van Tilburg et al., 2019). Deze twee emoties zijn de afgelopen jaren vaak gebruikt in politieke berichten, met wellicht de tegenstelling van de campagneslogans van Barack Obama in 2008 ("Yes, we can"; hoop) en Donald Trump in 2016 ("Make America great again"; nostalgie) als het beste voorbeeld.

Aan de hand van ons theoretische kader van EASI kunnen wij verschillende voorspellingen maken over hoe hoop en nostalgie de politieke ideeën van mensen kunnen beïnvloeden. Op basis van het syndroom-perspectief van emoties (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985), waarbij de subjectieve ervaring van een emotie een hele reeks veranderingen in gedachten teweeg kan brengen, verwachten wij dat gecommuniceerde hoop een positievere uitkomst zou hebben dan gecommuniceerde nostalgie als emotional contagion zich zou voordoen. Het ervaren van hoop zou leiden tot de perceptie dat de huidige situatie maakbaar en verbeterbaar is, terwijl het ervaren van nostalgie zou leiden tot de perceptie dat de mooiere tijden al verloren zijn. Als goal inference zich zou voordoen, zou de communicatie van hoop juist niet motiverend zijn, terwijl de communicatie van nostalgie dat wel zou zijn. Mensen zouden uit de hoopvolle boodschap geen duidelijk einddoel kunnen afleiden, terwijl uit de nostalgische boodschap een duidelijke doelstelling gehaald zou kunnen worden: teruggaan naar hoe we het vroeger deden.

In drie experimenten (totale $N = 430$) hebben wij deze verwachtingen getest. In studies 1a en 1b lieten wij links-liberale Engelse studenten berichten lezen, zogenaamd van een vertegenwoordiger van de studentenvakbond die tegen het verhogen van studiekosten was.

In studie 2 lieten wij rechts-conservatieve Engelse volwassen berichten lezen, zogenaamd van een vertegenwoordiger van een rechtse denktank die tegen een aankoopbelasting voor huizen was. Deze berichten hadden wij zo geschreven dat er hoop, nostalgie of geen emotie werd gecommuniceerd. In alle studies vonden we weinig verschillen tussen links-liberalen en rechts-conservatieven: beide groepen steunden de vertegenwoordigers niet meer of minder na het lezen van de berichten waarin hoop of nostalgie werden gecommuniceerd. We vonden echter wel een heel aantal effecten voor gecommuniceerde nostalgie op emotional contagion en goal inference. Zo waren de mensen die het bericht hadden gelezen waarin nostalgie werd gecommuniceerd meer hoopvol én meer nostalgisch, en dachten ze dat de situatie vroeger beter was en nu niet echt meer te verbeteren viel. Verder dachten ze ook in sterkere mate dat de vertegenwoordiger terug wou gaan naar een systeem waar de waarden en praktijken van vroeger de boventoon zouden voeren. Sommige van deze effecten hingen positief samen met steun voor de vertegenwoordiger, en sommige negatief. Deze resultaten laten zien dat de lekentheorie van "post-truth politics" ook niet ondersteund wordt voor positieve emoties en dat het zoeken naar extra informatie in emotieberichten kan leiden tot meerdere uitkomsten die elkaar tegenwerken.

## WOEDE, WALGING, HOOP, NOSTALGIE EN POLARISATIE IN DE SAMENLEVING (HOOFDSTUK 4)

Omdat de lekentheorie van "post-truth politics" met betrekking tot het verkrijgen van steun niet bekrachtigd leek te worden door de bevindingen van de vorige hoofdstukken, focussen wij in dit hoofdstuk op *affectieve polarisatie*, het verschil in subjectieve gevoel van warmte tussen twee politieke groepen (Iyengar et al., 2012; 2019; Iyengar & Westwood; 2015), en *vermeende cognitieve polarisatie*, de perceptie dat er een groot verschil is tussen die ideologieën van twee politieke groepen (Westfall et al., 2015; Wilson et al., 2020). Polarisatie zou een andere weg kunnen zijn waarlangs de communicatie van emoties zou kunnen leiden tot meer steun voor de persoon die emoties communiceert. Door emoties te gebruiken om onrust te zaaien, zouden mensen zich kunnen afkeren van alternatieve politijken partijen en uiteindelijk toch de persoon die emoties communiceert kunnen gaan steunen.

Aan de hand van ons theoretisch kader van EASI kunnen wij verder uitwerken hoe elke emotie polarisatie kan beïnvloeden. Woede en walging hebben een sterke betrekking op het gedrag van anderen (zie Hoofdstuk 2). Omdat affectieve polarisatie gericht is op het verschil in het subjectieve gevoel van warmte tussen twee groepen, denken wij dat de communicatie van woede en walging meer effect op deze vorm van polarisatie zou hebben dan de communicatie van hoop en nostalgie, zeker wanneer mensen zelf de emoties zouden voelen en er dus sprake is van emotional contagion. Tegengesteld zijn hoop en nostalgie meer gericht op de ervaring van de eigen persoon in relatie tot de tijd (zie Hoofdstuk 3). Omdat vermeende cognitieve polarisatie te maken heeft met het verschil tussen de plannen van verschillende groepen, denken wij dat de communicatie van hoop en nostalgie meer effect zou hebben op

deze vorm van polarisatie dan de communicatie van woede en walging, zeker wanneer mensen de vooruit- of teruggang idealen van deze emoties zouden toeschrijven aan de persoon die emoties communiceert en er dus sprake is van goal inferences.

In twee experimenten (totale $N = 535$), uitgevoerd onder oppositiestemmers in Nederland en Schotland, hebben we onze verwachtingen getest. Wij vroegen deelnemers om berichten te lezen die zo geschreven waren dat ze woede, walging, hoop of nostalgie communiceerden. Deze berichten leken afkomstig te zijn van een andere oppositiestemmer die kritiek uitte op de overheid (in studie 1 over het pandemiebeleid, in studie 2 over het beleid omtrent Schotse onafhankelijkheid). In studie 1 vonden we dat gecommuniceerde walging een uniek effect had op emotional contagion: mensen voelden in sterkere mate woede en walging, en in mindere mate hoop en nostalgie. Ook leidde gecommuniceerde nostalgie tot de perceptie dat de persoon die emoties communiceerde coulanter was ten aanzien van de overheid dan de andere gecommuniceerde emoties. In studie 2 vonden we echter een algemener negatieve versus positieve emotie effect op zowel emotional contagion (woede en walging leidde tot meer woede én walging, hoop en nostalgie tot meer hoop én nostalgie) en goal inference (woede en walging leidde tot het achterhalen van meer bestraffende doelen, hoop en nostalgie tot het achterhalen van meer coulante doelen). Deze resultaten spreken dus wederom de lekentheorie van "post-truth politics" tegen en laten zien dat hoe er wordt om gegaan met gecommuniceerde emoties afhankelijk is van de context en de besproken onderwerpen.

## THEORETISCHE IMPLICATIES

De bevindingen van dit proefschrift leiden tot een aantal theoretische implicaties. Ten eerste laten ze zien dat de theoretische, fijnmazige verschillen tussen emoties (bijv. Gasper et al., 2019; Roseman, 2001; Shook et al., 2019; Van Tilburg et al., 2019) in complexe communicatiecontexten vaak verdwijnen. Hoe elke emotie emotional contagion en goal inference beïnvloedde, kwam vaker door algemenere eigenschappen van de emotie zoals hoe positief of negatief ze waren.

Ten tweede zien we dat het theoretische perspectief van emoties als een syndroom van subjectieve ervaringen, gedachten en gedragingen (Averill, 1980; Roseman, 2011; Roseman & Smith, 2001; Scherer, 1984; Smith & Ellsworth, 1985) niet zo stabiel is in complexe communicatiecontexten. Zo vonden we dat de ervaring van sommige emoties niet gepaard ging met belangrijke veranderingen in gedachten en vice versa. Deze bevindingen komen overeen met eerdere commentaren op dit theoretische perspectief (Kuppens et al., 2013).

Ten derde laten de resultaten zien dat de verschillen tussen politiek links en rechts vaak kleiner zijn dan theoretisch wordt verwacht (Graham et al., 2009). In de meeste gevallen zagen we dat zowel links-liberalen als rechts-conservatieven hetzelfde reageerden op de gecommuniceerde emoties. Hiermee versterken deze bevindingen de uitkomsten van eerdere onderzoeken die laten zien dat in specifieke contexten theoretische verschillen tussen politiek links en rechts kleiner zijn dan gedacht (Frimer et al., 2013).

Tot slot laten de resultaten van Hoofdstuk 3 en 4 zien dat er nog veel te winnen valt met het onderzoeken van positieve emoties. In de psychologische literatuur wordt er veel gekeken naar negatieve emoties en wordt er gedacht dat deze meer invloed hebben op ons dagelijks leven dan positieve emoties (Baumeister et al., 2001). De effecten van gecommuniceerde nostalgie in het bijzonder laten echter zien dat er nog veel te leren is over de meerwaarde van positieve emoties.

## PRAKTISCHE IMPLICATIES

Zoals hiervoor omschreven, blijkt dat veel van de fijnmazige, theoretische elementen van de communicatie van emoties verloren lijken te gaan in de complexiteit van de context. Dat betekent echter niet dat het communiceren van emoties een makkelijke weg is om steun te krijgen of om onrust te zaaien. De belangrijkste praktische implicatie van dit proefschrift is dus dan ook dat het gebruik van emoties in politieke berichten het best vermeden kan worden: mensen gaan zoeken naar wat het doel is van de gecommuniceerde emotie en in het ergste geval, zoals bij de communicatie van walging, kunnen ze besluiten om de persoon die emoties communiceert minder te steunen.

Voor diegenen die toch ervoor kiezen om emoties te communiceren in hun speech raden wij het volgende aan: geef expliciet aan wat je doel is en hoe je de situatie ziet. De bevindingen van dit proefschrift laten zien dat mensen de gecommuniceerde emotie gebruiken als bron van deze informatie, maar dit kan leiden tot het toeschrijven van ongewilde doelen aan de boodschap en de persoon erachter. Expliciete informatie die verkeerde percepties direct tegengaat, kunnen er mogelijk voor zorgen dat berichten waarin emoties voorkomen goed worden ontvangen.

Als laatste waarschuwen de resultaten voor hoe we moeten denken over politieke verhoudingen in een gepolariseerde samenleving en verrassende politieke overwinnaars. Het feit dat iemand die emoties en onwaarheden gebruikt in diens toespraken wint, betekent niet per se dat feiten er helemaal niet meer toe doen. Het laat zien dat onze politieke voorkeuren geworteld zijn in onze meest fundamentele waarden over wat goed en slecht is voor de maatschappij. Het ontstaan van de lekentheorie van "post-truth politics" komt voort uit onze weerstand tegen het idee dat andere mensen fundamenteel anders kunnen denken over wat politiek gezien de juiste weg voorwaarts is. De bevindingen genoemd in dit proefschrift die deze lekentheorie tegenspreken, onderschrijven dan ook de noodzaak om in gesprek te gaan met mensen die anders denken.

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# CONCLUSIE

Op basis van de bevindingen uit de empirische hoofdstukken kunnen we de hoofdvragen van dit proefschrift beantwoorden. Ten eerste kunnen we zeggen dat het communiceren van emoties niet lijkt te leiden tot meer steun voor de persoon die emoties communiceert of meer polarisatie in de samenleving. Ten tweede kunnen we concluderen dat gecommuniceerde emoties zeker bijdragen aan een politiek bericht, en de emoties en gedachten van een publiek duidelijk kunnen beïnvloeden. Deze effecten zijn echter complexer dan de lekentheorie van "post-truth politics" doet lijken en laten zien dat mensen zich niet blind laten leiden door gecommuniceerde emoties, maar actief met de emoties bezig gaan om erachter te komen waarom ze in het politieke bericht verwerkt zijn. Uiteindelijk laten de bevindingen in dit proefschrift zien dat lekentheorie van "post-truth politics" niet op de waarheid is gebaseerd en dat de communicatie van emoties geen wondermiddel is voor politici en andere sprekers om steun te verkrijgen of om onrust te zaaien.

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# Curriculum Vitae

Martijn Benjamin Blikmans was born on 26<sup>th</sup> of July 1994, in Almelo, The Netherlands. After graduating from high school, he moved to Groningen to study Psychology in 2012. During his Bachelor programme, he became interested in people's understanding of morality and their fundamental beliefs about good and evil. In 2015, he worked with Maja Kutlaca on his Bachelor thesis, investigating the role of different moral frameworks (i.e., deontology and utilitarianism) in people's decisions to engage in collective action. Successfully completing his thesis work, he graduated cum laude from his Bachelor.

He then pursued a Research Master programme, specialising in Social Psychology. During the course Controversies in Social Psychology in 2016, his research interests shifted from more fundamental conceptualisations of morality into a fascination for politics. The geo-political surprises of that year, such as the victories of the Brexit Leave and Donald J. Trump campaigns only served to further that fascination. For his Master thesis, he worked with Martijn van Zomeren to examine the effects of moral arguments on political persuasion. He also wrote a proposal for a PhD thesis, aimed at more completely uncovering the promises and pitfalls that moral argumentation could hold in political contexts. His proposal was selected to be funded by the Faculty of Behavioural and Social Sciences, and in 2017, he started his PhD programme, supervised by Martijn van Zomeren and Kai Epstude.

During his PhD programme, the focus of his thesis shifted from moral argumentation to the use of emotions in political rhetoric. In 2020, he went to Northwestern University in the United States to learn about Twitter data analysis in order to model the reactions to emotion communication in real time, but the pandemic cut his stay short. After returning to the Netherlands, he decided that he wanted to pursue a different career path after his PhD programme, and set his focus on finishing his thesis. In 2021, he applied for and got a position at the University of Groningen Library, where he now works on a project focused on the adoption and proliferation of Open Science and Educational practices at the University of Groningen.

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