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Emotions as predictors of protest participation during the Covid-19 pandemic in five European countries

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Abstract

Emotions are known to play an important role in motivating protest participation. This study identifies and attempts to account for gaps in the Emotions and Social Movements literature, by examining the role of different emotional experiences (emotional constellations, distinct emotions, and their interactions) as predictors of protest participation. It uses a unique data set that includes respondents from five European countries (Germany, Austria, Switzerland, Italy, Poland), which were surveyed during the early phase of the Corona pandemic (October – November 2020). The study argues that the pandemic serves as an especially suitable context for testing the connection between emotions and protest participation, as it heightened negative emotional experiences and introduced additional protest grievances. The study hypothesizes and tests a positive impact of Positive and Negative Affect, as sets containing multiple positive/negative emotions, on protest participation, as well as a positive moderation effect of Positive Affect on Negative Affect. It also hypothesizes and tests the positive effects of distinct emotions of pride, anger, shame, and guilt on protest participation, as well as a negative effect of fear. Additionally, it proposes and tests positive moderation effects of pride on shame, and of anger on fear, as predictors of protesting. Most of the hypotheses are supported by the results, except for the negative effect of fear on protesting, and the positive moderation effect of anger on fear. The study also includes two types of exploratory analyses – exploratory factor analysis and latent class analysis – which are used to even further uncover the emotional complexity of protest participation.

1 INTRODUCTION

Turbulent times lie behind us. Various authors have described the second decade of the third millennium as „the decade of the protester" (Roos, 2015), and our times more generally as an „age of dissent" (Bailey, 2016), and of „global mass protests" (Brannen et al., 2020). This decade, preceded by the global economic crisis, has witnessed a steady rise in global protests (Carothers & Youngs, 2015; Brannen et al., 2020). The word „protestor" was unsurprisingly proclaimed Time Magazine's word of the year 2011, following a severe intensification of protest across the Arab World and Southern Europe (Carothers & Young, 2015). Unexpectedly for many observers, 2011 was however not a „peak" point, but rather just an introduction to a decade marked in many ways by an intensification of protest activities – a trend which does not appear to be slowing down. As many scholars have suggested (see, for example: Brannen et al., 2020), factors that stood the increasing trend in mass protests are not waning.

The Covid-19 pandemic might have stalled this development – especially in its earliest phases, when the government- and self-imposed distancing measures corresponded with a sharp decline in protest activities, particularly in countries in Europe and Asia (Metternich, 2020; Brannen et al., 2020) – however, many observers expect yet another worldwide rise in protests to occur as a response to the crisis, cleavages it might be creating or deepening, and ways it is being handled by governments (Metternich, 2020; Brannen et al., 2020). Taken together with the ever-wider availability of information and communication technologies, changing political and economical expectations, economic deceleration and alarming consequences of climate change (Carothers & Youngs, 2015; Brannen et al., 2020) these developments support an expectation of even more numerous and intensive future protest occurrences.

With this expectation in mind, numerous reasons for why it is important to study social movements and protest activities and participation become clear. Protests are an important democratic institution (e.g., Della Porta, 2014; Verba et al., 1995, p. 1 – as cited in: Krajnc et al., 2012;), with the potential to bring political changes (Metternich, 2020), or stir social unrest. Improving our understanding of social movements should thus lead to a better understanding of the character of

the democratic political system and social changes. Apprehending different factors that affect protests – their initiation, forms of manifestation, and reasons for participating in them – is a worthwhile challenge that many social sciences have undertaken, with inspiring and revealing results.

Not the least important among these multi-disciplinary contributions are the ones made by Sociology of Emotions, and the research field of Emotions and Social Movements. After a decades-long looking down upon emotions (framed as irrational and harmful outbreaks of de-individualizing impulses) in the scholarly literature related to protesting, followed by decades of ignoring them, finally starting in the 1990s emotions regained their rightful recognition as an important predictor of protest behavior (Goodwin et al., 2000). Scholars of emotions made us aware of the numerous affective aspects of protesting, spanning through each of its phases (Jasper, 2011; Yang, 2007), and solidified the position of emotions in the wider Social Movements literature. Emotions are now widely recognized as a factor that impacts protest mobilization, occurs during acts of protest, and shapes their appearance, contributing to their long-term continuation or dissolution (e.g., Van Ness & Summers-Effler, 2018).

In protest messages of such diverse movements as Fridays for Future, Black Lives Matter, and *Queerdenker*, we can now not only recognize strong distinct emotions such as anger, fear, hope, or pride but also witness the heterogeneity and the multifacetedness of the protest's affective side. Anger can be recognized alongside messages of fear; messages of optimism go hand in hand with those of pessimism; slogans conveying a sense of pride and inciting love can be seen next to the ones shaming protest opponents. There are numerous indications that this affective heterogeneity, characteristic of protests as a whole, also characterizes the participating individuals and might be empowering and even necessary for their engagement in protests (e.g. Jasper, 2011). For example, we know that (protest-related) emotions are typically not experienced in isolation from one another, but rather appear in constellations so that both positive and negative, activating and pacifying emotions emerge simultaneously, exerting a combined effect on one's behavior (Benski, 2010; Cash, 2012 – as cited in Asún et al., 2020).

And yet, despite numerous indications of protests' affective complexity and multifacetedness, much research tends to present a simplified account of emotions as motivators of protest – with the focus often lying on single distinct emotions, as if they were felt in isolation from other emotions. Perhaps the most indicative for this tendency is that most of the emotion-imbued causal models of protest participation (e.g., van Zomeren et al., 2004; Stürmer & Simon, 2009; van Stekelenburg et al., 2011) only focus on one distinct emotion – anger – effectively leaving unconsidered the potential effects of other distinct emotions, their interactions, and constellations.

In response to these developments in the Emotions and Social Movements scholarship, the widest general aim of this study will be to broaden our perspective on the affective complexity and heterogeneity of protests. Through pursuing this general aim, this study will account for four closely related research gaps we detected. They shall be presented in the next subsection, helping us narrow our general research aim, and motivating our research questions.

1.1 Gaps in the literature

As mentioned, the first gap that characterizes much of the literature on Emotions and Social Movements, and especially some of the principal integrative explanatory models of protesting (e.g., van Zomeren et al., 2004; Stürmer & Simon, 2009; van Stekelenburg et al., 2011), is focusing on just one distinct emotion – anger – as the decisive emotion of protest[1]. This leaves such potentially protest-mobilizing and theoretically well-elaborated emotions as pride or guilt – out of much of empirical research, resulting in a lack of concluding evidence of these emotions' impact on protest participation.

A closely related second research gap is that even when distinct emotions other than anger are included in empirical models of protest participation (e.g., guilt, as in: Leach et al., 2006), they tend to be studied in isolation from other emotions. This disables researchers from statistically controlling for effects of simultaneously experienced and correlated emotions, and might bias our

[1] As Goodwin and colleagues write: "Most of the work on emotions in social movements remains scattered and *ad hoc*, addressing one emotion in a single kind of setting" (Goodwin et al., 2000, p. 77).

understanding of the impact of certain distinct emotions (e.g., anger) on protest participation. Relatedly, it can preclude us from understanding the mutually strengthening or weakening impacts of different, simultaneously experienced distinct emotions (e.g., emotional „pairs“ such as pride and shame, or anger and fear) on protest participation (Asún et al., 2020).

The third research gap is closely related to the second and mostly pertains to quantitative empirical studies. Most of them have not integrated the findings of qualitative studies which show that emotions during protests tend to be experienced in constellations and arrays (Benski, 2010; Van Troost et al., 2013 – as cited in: Asún et al., 2020). And even though there are a few recent exceptions to this trend (e.g., Sabucedo & Vilas, 2014), rarely have more than two or three emotions been studied together as predictors of protest (to the best of our knowledge, this is only done by: Asún et al., 2020; see also: Rees et al., 2015). In other words, these emotional constellations and arrays have not yet been studied in their fullest richness and complexity. This observation might seem similar to the previous one – yet it comes from a different research perspective. Rather than studying how *distinct* emotions impact protesting when controlled for other distinct emotions, this gap suggests the need for approaching emotions as arrays or constellations of related feelings – not to replace, but to complement the „distinct“ emotions perspective.

Fourthly and finally, emotions with positive valence have for a long time been largely left out of quantitative research on emotions and social movements (Asún et al., 2020). Frederickson (1998) even described a broader tendency of their negligence in psychological research altogether and names their phenomenological diffusiveness and the difficulty of unambiguously determining their analogous action tendencies as the possible factors lying behind this tendency.

1.2 Research aims of the present study

My study will attempt to contribute to filling the above-described knowledge gaps, by answering the research question: „Which emotions predict protest participation during the Covid-19 pandemic in five European countries?“. Importantly, I will study a general connection between

emotions and protesting, meaning that I will largely abstract from the concrete issues that motivated protests in this period. My interest lies in the most general mechanisms by which different emotional experiences could motivate protesting, and my fundamental assumption is that these mechanisms should function relatively similar across different concrete examples of social movements and their protest goals.

I took the first year of the Covid-19 crisis (October – November 2020) as a particularly suitable timeframe for my study, since I assume that the usual mechanisms linking emotions with protesting remained unchanged throughout it, yet both every day (negative) emotional experiences and protest grievances were amplified[2].

I will account for the aforementioned affective complexity of protesting by testing several different types of affective predictors of protesting. I will first study how Positive and Negative Affects[3], as well-established psychological constructs shown to impact many aspects of life, impact protest participation[4]. I treat PA and NA as perfect examples of the previously mentioned emotional arrays and constellations[5]. Studying them will enable me to examine the combined effect of multiple, simultaneously experienced positive, as well as negative emotions on protest participation.

Secondly, I will study the protest-mobilizing impact of several distinct emotions, focusing on the ones that are the most present in the existing theory and research (pride, anger, fear, shame, and guilt[6]). Furthermore, I will test several moderation models, in an attempt to examine the combined impact of different distinct emotions on protest participation. In doing so, I will broaden the usual focus of studies in the research field of Emotions and Social Movements.

[2] I will elaborate on how I am expecting the context of Covid-19 pandemic to suit my research aims in one of the upcoming subsections of my study.
[3] I will often use abbreviations (PA and NA) to refer to Positive and Negative Affect.
[4] To the best of my knowledge, this question has not previously been studied, and it is thus a unique contribution to the existing literature.
[5] I will elaborate more on how I define PA and NA in the "Theoretical Framework" section of this study.
[6] This choice is elaborated in more depth in the Literature Review section of this study, under the heading "Emotions and Social Movements: My reviewing scheme".

Lastly, my study will also contain two exploratory sections, where I will observe whether underlying emotional structures of protesters and non-protesters differ, as well as how different emotional experiences are distributed across groupings of protest activities. This exploratory section should enable me to draw a complete picture of the emotional complexity of protest participation.

1.3 The structure of the present study

My study will be structured as follows:

The „Theoretical Framework" section will offer a brief Conceptual Overview, where I will outline how I will use the concepts „protest", „emotions" and „Positive/Negative Affect". Within this section, I will also elaborate on why I am expecting the context of the Covid-19 pandemic to be particularly suitable for my research aims.

In the next, „Literature Review" section, I will first present an overview of the most important socio-psychological explanatory models of protesting. I will later draw from this body of theoretical work to inform my own expectations on different emotions' impact on protesting. Then, I will introduce some of the most important concepts from the scholarship on Emotions and Social Movements. This will serve a double purpose: informing my own expectations and locating the contributions of my study within the broader scholarly work. I will then review the existing theoretical and empirical work on PA in the context of protesting, as well as on pride as a representative of distinct positively-valenced emotions. I will then do the same for NA and distinct emotions of anger, fear, shame, and guilt. Simultaneously with reviewing the literature, I will be formulating my own hypotheses concerning PA/NA and the distinct emotions as predictors of protest. These hypotheses will be restated in the last subsection of my „Literature Review".

In the next section, I will briefly describe my dataset. Also, I will explain how I operationalized the concepts of my research interest and which analytic strategy I will use to answer my research questions.

In the „Results“ section, I will first present a descriptive overview of my sample features, as well as my emotions- and protesting variables. I will then describe the models I used for testing my hypotheses, as well as my exploratory models.

In the „Discussion“ section, I will interpret the results of my empirical models – revealing what they mean for my hypotheses, and what insights can be gained from my exploratory analyses. I will then outline my study’s limitations, as well as its contributions to the current state of research, and suggest directions for future research.

The study ends with a brief „Conclusion“ section, followed by a list of references, and an Appendix, containing data and results which – for the sake of readability – I omitted from the main text.

2 THEORETICAL FRAMEWORK

As announced in the Introduction, the aim of this section is twofold. Firstly, I will first offer a brief Conceptual Overview, where I will outline how the concepts „protest“, „emotions“ and „Positive/Negative Affect“ will be used in this study. Secondly, I will elaborate on why I am expecting the context of the Covid-19 pandemic to be particularly suitable for my research aims.

2.1 Conceptual Overview

2.1.1 Protests

This study is based on a broad conceptual understanding of protests. For its starting point, we rely on Goodwin and Jasper (2014, p. 3), who defined the term protest as referring to „the act of challenging, resisting, or making demands upon authorities, powerholders, and/or cultural beliefs and practices by some individual or group“. Notably, this definition poses very few limits to the meaning of the term protest. From its perspective, almost every status-quo opposing act can be viewed as an act of protest. A benefit of the definition of such width is that it encourages researchers to look for underlying similarities, mechanisms, and motivations that lie behind very diverse types of protest acts, ranging from signing an online petition to protesting in public space, and from acts of individuals to collective actions of thousands. Broadly defining protests is not unusual in the scholarly tradition of Emotions and Social Movements, and might be a necessity, given the often wide, generalizing, and synthesizing ambitions of this field of scholarly work.

However, I would argue that the previously cited definition lacks an acknowledgment of the social, collective nature of the acts in question. In my understanding, to be considered an act of protest, a given action needs to be performed by a collective agent, even if only loosely coordinated. It is through this collective-action aspect that we typically associate with the concept of protest, that protests are distinguished from individual acts of disobedience/resistance, though they might arise from them.

In this paper, the terms „protest“ and „social movement“ will be used interchangeably (as done by other researchers in the Emotions and Social Movements scholarship as well – e.g., Jasper, 2011). Also, the term „collective action“ will occasionally be used to denote the same concept.

2.1.2 Emotions

Having defined how protests are understood in this study, we should now do the same for emotions.

Our general outlook on emotions is largely informed by the Sociology of Emotions. We regard emotions as a phenomenon whose causes, aims, and types of expression often lie within the realm of social (see, for example: Bericat, 2016). We adhere to Scherer's (2005) definition of emotions, due to its wide acceptance by scientists from various disciplinary milieux (as noticed and exemplified by: von Scheve, 2014, p. 13; Pivetti et al., 2016). This author defined emotion as „an episode of interrelated, synchronized changes in the states of all or most of the five organism subsystems in response to the evaluation of an external event or an internal stimulus as relevant to major concerns of the organism“ (2005, p. 697). These five organism subsystems, or the five components that make up an emotion are: „cognitive component (appraisal), neurophysiological component (bodily symptoms), motivational component (action tendencies), motor expression component (facial and vocal expression), and subjective feeling component (emotional experience)“ (Scherer 2005, p. 691; as cited in: Pivetti et al., 2016). As Pivetti and colleagues (2016) write, referring to Scherer's work (1984; 2005), „[t]he specific emotion experienced consists of the synchronization of all of these systems during an emotion episode“.

In the remaining of the study, emotional components of our primary interest will be appraisal and action tendencies, as well as (to a lesser degree) bodily symptoms. Our understanding is that they play an important role in motivating protest participation, which we will explain in more detail, concerning PA and NA, as well as distinct emotions.

Finally, it is important to note that numerous elaborate conceptual differentiations with regards to emotions, for example, distinctions between emotions and sentiments (Bericat, 2016; Jasper,

2011), lie beyond the scope of this study. We still acknowledge their importance and refer to them in the Discussion section.

2.1.3 Positive and Negative Affect

I use the concepts Positive and Negative Affect in this study to refer to sets of positively and negatively valenced emotions felt over a certain amount of time. Even though these concepts can also be used to denote personality traits, I rather approach them as state-like variables, which is another way they are commonly understood[7] (Fortenberry et al., 2013). These concepts originally stem from Watson and Tellegen's (1985) two-factor mood and affect model, „in which high levels of positive affect reflect enthusiastic, active, and alert mood states" while negative affect „includes aversive mood states, such as anger, guilt, nervousness, and fear" (Fortenberry et al., 2013, p. 1509).

Positive and negative emotions are often seen as polar opposites, not only by the lay people but also by many scientists (see examples in: Miyamoto et al., 2010). Although this is a debated scientific topic, there are strong indications for their independence, meaning that people can experience positive and negative emotions simultaneously and that they need not be negatively correlated (*ibid.*; Watson et al., 1988). Accordingly, neither positive nor negative affect, as understood in this study, implies a lack of one another. Rather, I see them as separate, independent dimensions of individuals' emotional experiences (Fortenberry et al., 2013).

2.2 Covid-19 Pandemic

In the following section, I will broaden my elaboration on why the context of the Covid-19 pandemic is particularly suitable for studying the impact of emotions on protest participation, as suggested in the study's introduction. As previously stated, the context of the Covid-19 pandemic does not in my opinion suggest a profound difference in the link between emotions and protest. After all, in this study, I search for mechanisms through which emotions motivate protest

[7] When they are given this meaning, they are often referred to as positive/negative affectivity.

participation which I take to be relatively universal across different periods. Rather than changing these mechanisms, I will try to show that the expected impact of the Covid crisis is to be seen in amplifying the individuals' negative emotional experiences and their protest grievances – which might positively impact protest participation. The argumentation will be built in two steps, by separately considering the impact of the Covid-19 pandemic on emotions, and protests.

2.2.1 Covid-19 Pandemic and Emotions

There are many, both anecdotal and empirical indicators that the Covid-19 pandemic is a distinctly emotionally-experienced crisis, one that had (especially in its early stages) important large-scale consequences for the overall emotional states of populations worldwide. An increase in negative emotions, such as fear and stress was found in most empirical studies on emotional reactions to the pandemic (Li et al., 2021). For example, in a survey done by Thompson and colleagues (2021)[8], in November/December 2020, more than 40% of the respondents reported increased stress rates since the beginning of the pandemic. Almost 40% reported feeling lonelier, and 25% reported feeling more isolated than before the crisis (*ibid.*). In another study, Rogers and Ha (2020) show that adolescents from a representative USA sample perceived decreased positive affect and increased positive affect, as well as negative changes in their relations with friends and family during the initial stages of the pandemic, in April 2020. Yet another example can be found in the study of Hamza and colleagues (2021), who compare the self-reported mental health of Canadian postgraduates in May 2019 and in May 2020. Their findings indicate students' declining mental health and increased social isolation.

Of course, the pandemic did not "cancel" positive emotional experiences, even though it might have increased negative emotions. Stella and colleagues (2021) showed that emotional profiles during the pandemic were complex, rather than unambiguously negative: positive emotions, such as trust, hope, and solidarity coexisted with negative emotions such as anger and fear[9]. Other authors (e.g., Li et al., 2021; Canet-Juric et al., 2020) have noted that the short-term emotional

[8] This study was conducted in Canadian regions of New Brunswick and Nova Scotia, on sample that was age- and gender- representative.
[9] My data supports this – see: **Table 7** in the Results section.

impacts of the crisis might differ from its long-term effects. In one of the rare longitudinal studies that spanned over several different phases of the Covid-19 crisis (four waves, covering the period from February to December 2020), Li and colleagues (2021) showed that the pandemic made no longstanding impact on life satisfaction and emotions in China and the USA, despite its initial negative emotional effect.

Drawing an unambiguous conclusion as to how the pandemic in its early stages might have affected individuals' emotions from these numerous, often mutually contradicting, country- and time-specific findings is not an easy task. In summation, I would however argue that the cited articles provide sufficient support for the idea of intensified negative emotional experiences, especially during the early stages of the pandemic, which are also the time frame of my study. Negative emotions, as my Literature Review will show, are commonly seen as potent protest mobilizers. However, people did also experience strong (collective) positive emotions during the pandemic (Stella et al., 2021). I hold both important for protesting, thus I see the Covid-19 pandemic as a "fertile" emotional soil for "breeding" protesting. Indications that support this idea can be seen in a brief review protesting under the conditions of the Covid-19 pandemic, in the following sub-section.

2.2.2 Covid-19 Pandemic and Protesting

Press and Carothers (2020) provide an overview of protesting worldwide in the year 2020. According to these authors, this year „highlighted the resilience of protests around the globe" (*ibid.*). Despite an initial reduction in „the number and size of protest" in February and March 2020, protest activities picked up the pace in the following months, so that monthly numbers of significant new protests worldwide even surpassed many of the previous years' monthly levels (*ibid.*). Press and Carothers write that familiar socio-political grievances stood behind protests in 2020, with the addition of pandemic-related grievances (e.g., protests against lockdowns, economic shifts, and political mishandling of the crisis) and increased frustration (Adikari et al., 2021). This seems to indicate that although the threat of Coronavirus took precedence over much

of our everyday lives, this did not suppress other social and political issues[10]. The opposite seems more likely – that it boosted protest-motivating grievances, creating „new protest triggers as public health measures became objects of political contestation“ (Press & Carothers, 2020). Importantly, even though social distancing measures which were implemented in many countries to stop the virus' spread might have resulted in fewer public protest activities – especially in the very earliest months of the pandemic – it is not the only type of protest activity that I will focus on, as one could have still participated in other types of protest.

Summarizing our thoughts on the link between the pandemic, emotions, and protesting, I suggest that the Covid-19 Crisis brings novel layers of emotionally-laden grievances, frustrations, and hostilities on top of the existing ones. Additionally, especially in its early stages, it has led to individuals experiencing intensified (negative) emotions, that could be metaphorically described as „emotional turmoils“ (Champagne, 2020). Taken together, these intensified emotions and heightened protest-grievances brought by the pandemic can prove particularly suitable for researchers of Emotions and Social movements.

[10] This is also supported by my data – **Table 3** in the Results Section**.**

3 LITERATURE REVIEW

Having precisely defined the main concepts of this study, and having explained why I expect that the current pandemic suits an exploration of their relationship, in this section, I will more thoroughly review the literature about their connection.

I shall start my literature review by briefly discussing the most influential explanatory social psychological models of protest participation. I include them since they lend themselves to an emotionally-embued re-interpretation, and since I will be referring to them in the subsequent parts of my study, where I will make claims about how PA and NA, as well the distinct emotions of pride, anger, fear, shame, and guilt are related to them.

After that, I will elaborate on the criterion I will use for organizing the accumulated knowledge in Emotions and Social Movements scholarship. A review of this field will be then be made according to this criterion: how scholarly works suggest PA and NA, as well as the distinct emotions of my interest, to act as motivators of protesting.

3.1 Socio-psychological explanatory models of protest participation

Most reviewers (Tausch & Becker, 2013; Xue et al., 2018; Landmann & Rohmann, 2020) agree that, apart from (group-based) emotions, the most influential factors that affect protest participation include social identity, and perceived collective efficacy. Additional factors that have gained scholarly attention include relative deprivation and rational analysis of various protest-related gains and losses (Tausch & Becker, 2013; Stürmer & Simon, 2004). The following section will briefly discuss these approaches and illustrate how emotions can be included in them, enriching and informing them.

Importantly, these models are not mutually exclusive. On the contrary – the main tendency in recent years is to combine them, and to include emotions into the resulting integrative models (e.g., van Zomeren et al. 2004; Stürmer & Simon, 2009; van Stekelenburg et al., 2011). Rather than

subscribing to any individual model, I will freely draw from different presented models to support my claims in the remainder of the study.

3.1.1 Relative deprivation

In its simplest form, relative deprivation theory (RTD) offers a relatively straightforward and intuitive account of protest mobilization. It poses that the most likely protestors are the individuals who perceive their group as „relatively deprived in comparison with a reference group“ (Tausch & Becker, 2013, p. 526). Eventually, increasing frustration that results from these unfavorable intergroup comparisons resolves in protesting (Sayles, 1984; Walker & Mann, 1987).

As Tausch and Becker (2013) write, further work on RTD revealed that the emotional reactions to perceived deprivation, rather than just purely cognitive awareness of it, play an important role in motivating collective action (p. 526 – citing: Walker & Smith, 2002). In the case of relative deprivation, the common emotional reaction is that of anger, with the related tendency to act against the offenders (*ibid.*).

Importantly, perceptions of relative deprivation can be framed by social movement organizations and their leaders (Caraway, 2018), to accentuate the injustice contained in intergroup relations. According to Gamson's (1992) collective action frames theory – yet another branch of protest-related theorizing – applying different narrative frames on immediate events „allow[s] groups to focus attention and identify problems, attribute blame and articulate solutions“ (Caraway, 2018, p. 12). One of the frames it recognizes, the „injustice frame“, can be used to give meaning and significance to the perceived relative deprivation (Caraway, 2018, p. 12), eliciting anger and inspiring protests against it.

3.1.2 Instrumental theory of protest participation

The second influential approach to explaining protest participation I shall touch upon is the so-called instrumental approach, developed by Klandermans and his colleagues (Klandermans, 1984, 1997; Klandermans & Oegema, 1987 – as cited in: Stürmer & Simon, 2009, p. 682). According to this model, protest participation requires four distinct steps (the following is based on: Stürmer and Simon, 2009, pp. 682-683):

1) Sympathizing with a social movement,
2) Being targeted by the movement's mobilization endeavors,
3) Developing motivation for taking part in the movement's specific collective actions,
4) Overcoming barriers to participation.

The most important ideas of Klandermans' model are to be found in the third step. Individuals decide whether or not to protest based on rational cost-benefit analysis (Stürmer and Simon, 2009, p. 682), taking into account the expected likelihood of reaching desired outcomes, as well as subjective value ascribed to them. The model distinguishes between three different types of motives for protest participation. *Collective* motives entail how much individuals value the goals of the given social movement and the estimated likelihood of reaching them (*ibid.*). *Normative* (*social*) motives include the others' expected positive and negative reactions to the one's protest involvement (*ibid.*). Finally, *reward* motives refer to the value one ascribes to their more personal resources, such as time and money, and to expectations of gaining/losing them through protesting (*ibid.*).

As we announced previously, this model can also be re-interpreted from the point of view of Sociology of Emotions. Out of the four steps to protest participation, only the second one is fully unconnected to an individuals' emotions and fully depends on the actions of others. Pertaining to the first step, sympathizing with a social movement is not necessarily a purely cognitive, attitudinal phenomenon – but is very likely to entail an emotional aspect as well.

Most importantly, different suggested motives for participation can also be seen as possessing important emotional aspects. Most strikingly, the normative (social) motive, contained in „the

expected reactions of significant others to one's participation in collective action (e.g., ridicule or admiration by friends or family)" (Stürmer & Simon, 2009, p. 682) flawlessly reflects definitions of self-directed evaluative emotions. These emotions, for example, shame or pride, also stem from the expected reactions of others to our behavior. One might even go as far as arguing that it is exactly expected self-evaluative emotions that lie in the heart of Klandermans' normative motive.

Klandermans' model can be criticized for its over individualized focus, and its conception of the individual actor as overly rational and calculative (Stürmer & Simon, 2009). We now turn to a perspective that accounts for these critiques – the social identity perspective.

3.1.3 Social Identity

The social identity approach to protest participation draws from the wider social identity theory (e.g., Tajfel & Turner, 1986) – which represents a broad account of how collective identification impacts collective behavior (Stürmer & Simon, 2009). It proposes that identifying with an ingroup whose members are active in certain protests, and even more importantly (Stürmer & Simon, 2004, 2009) identifying with the specific social movement (organization) is yet another important predictive factor of protest participation. Identifying with the ingroup, and even more so with the social movement that represents it, shows that one has internalized the group's collective goals, interests, and norms, out of which an inner obligation to support them emerges (Tausch & Becker, 2013, pp. 526-527; Stürmer & Simon, 2009, pp. 683-684).

Most importantly for the aims of our study, emotions can be incorporated into this perspective as well. Implications of the Social Identity Theory and appraisal theories of emotion led to developing the concept of group-based emotions (Mackie et al., 2000), which is the main focus of much of research that links emotions and protesting (e.g., van Zomeren et al., 2004; Stürmer & Sinom, 2009; van Stekelenburg et al., 2011). Group-based emotions are the emotions we experience when our social (rather than "individual") identities are salient. They occur in intergroup situations, as a result of events that are relevant for the group we identify with, even when we as individuals are not directly impacted by them. They can have similar physiological and phenomenological

properties as individual emotions, yet are “distinct from and can vary independently” of them (Goldenberg et al., 2014). Group-based emotions are often seen as important drivers behind collective action (e.g., van Zomeren et al., 2014) – unsurprisingly given that social movements often gather people not as individuals, but as members of groups united by identity traits, shared experiences of social injustices, or common strivings for certain aims.

An additional link between emotions and social identities can be found in emotions’ potential to strengthen social identities. In their review of the bi-directional link between group processes and emotional processes, van Kleef and Fischer (2016) cite findings that positive emotional experiences towards the ingroup, as well as negative ones towards the outgroup, lead to an increased ingroup identification, and vice versa (e.g., Kessler & Hollbach, 2005). This might be especially relevant in protest situations, as numerous authors have suggested that evoking positive emotions towards the ingroup and its allies, and negative emotions towards protest opponents is one of the key strategies of social movement actors (e.g., Goodwin et al., 2001). Also, similar emotional reactions to shared events were found to increase ingroup identification and the willingness for future cooperation (Livingstone et al., 2015 – as cited in: van Kleef & Fischer, 2016). This too might be relevant for our study, since the context of protesting is fundamentally characterized by shared emotional experiences (Jasper, 2011; D’Orsi, 2015 – as cited in: Över, 2021).

3.1.4 Perceived group efficacy

Perceived group efficacy is the third protest-mobilizing factor recognized by many researchers (e.g. Tausch & Becker, 2013; Xue et al., 2018). The tradition of protest participation research that relies on this notion is long and well-established. Perceived group efficacy can be defined as a belief that collective actions *can* solve problems occupying an individual or the group they identify with, and it is seen as an important predictor of social movement participation (van Zomeren et al., 2004). Other terms sometimes used to capture a similar concept include agency and collective efficacy (Tausch & Becker, 2013, p. 526). Scholarly works in this tradition have resulted in „extensive evidence that the subjective experience of group efficacy predicts collective action

intentions“ (Tausch & Becker, 2013, p. 526 – citing: Mummendey et al., 1999; Van Zomeren et al., 2004)”.

Emotions can be brought into this perspective as well. To name just one example, Gibson (2003) showed that a positive emotional climate in the group („group affect“) predicts increases in perceived group efficacy. Additionally, she shows that self-efficacy – the individual's belief that they are capable of performing a given task (Gibson, 2003, p. 2155) predicts perceived group efficacy. Relatedly, positive emotions such as pride and hope have been found to increase perceived self-efficacy (Asún et al., 2020; Villavicencio & Bernardo, 2016; Forgas, 2001).

3.2 Emotions and Social Movements: My reviewing scheme

Having discussed the main socio-psychological explanatory models of protest participation, and how emotions can be linked with them, I move to review the literature dedicated specifically to emotions and protesting. I will first briefly comment on different ways of organizing the large body of knowledge accumulated in the field of Emotions and Social Movements. I will then introduce the criterion according to which I will review this literature – how different authors see the role of PA and NA, as well as certain distinct emotions in predicting protest participation.

There have been many ways of reviewing the rich literature dedicated to the link between emotions and social movements. Some authors use a variation of the temporal criterion as a basis for their review. Similarly, van Troost and her colleagues (2013) reviewed the Emotions and Social Movements literature based on how it answers the questions of how discrete emotions experienced *before* protest impact protest participation, how emotions are incited *during* protesting, and how emotions *after* protest affect protest (dis)continuation. Reviews by Van Ness and Summers-Effler (2018) and Jasper (2011) include a variation of this criterion as well.

Other authors (e.g., Ruiz-Junco, 2013; Goodwin et al., 2000) focus on the most influential concepts to be found in this scholarship, such as Emotion Work, Emotional Framing, Emotional cultures, and Emotional opportunity structures (Ruiz-Junco, 2013).

Finally, many authors review the literature along the lines of the effects different emotional experiences were proposed or found to have for protesting (e.g., Flam, 2005; Jasper, 1998). In the following section, my review shall follow this approach the most closely, as it best suits our research goals.

I will start by reviewing the available theoretical considerations and empirical evidence on how Positive Affect impacts protest participation. I will then review how pride, as a representative of distinct positive emotions, is suggested to be related to protesting. I will then do the same for Negative Affect, followed by distinct negative emotions of anger, fear, shame, and guilt.

The merits of focusing on PA and NA were already elaborated – these concepts capture the idea of simultaneously occurring sets of emotional states, rather than just distinct emotions. Discerning between distinct emotions based on their valence is motivated by a common view of valence as a primary, basic, and pancultural aspect of emotional experience (Barrett, 1988, p. 579). The choice of discrete emotions to be reviewed is made based on their theoretical and empirical prevalence. *Pride*, for example, is often featured in literature as the primary goal of identity movements (e.g., Britt & Heise, 2000). *Anger* is chosen since it is the most theoretically discussed and empirically researched distinct emotion, commonly seen as the prototypical „emotion of protest". *Fear* is also present in the literature, where it is often seen as the main opponent of protest mobilization, however, its effects are rarely empirically tested. *Shame* and *guilt*, are also relatively commonly referred to in the literature, mostly as unpleasant emotional states whose transformation into more positive emotions is among the primary aims of identity politics.

Additionally, anger and fear can be interpreted as representatives of the so-called primary emotions – even though both of these emotions can have, and often do have a social character. Pride, shame, and guilt, on the other hand, are typically seen as representatives of the so-called secondary, self-evaluative, or moral emotions. Some authors see such emotions as particularly potent mobilizers of collective action (Goodwin et al., 2001, p. 10; Jasper, 1998, p. 401; Goodwin et al., 2000, pp. 79-80), given that protests always include certain moral aspects and making moral assessments.

It is clear from my choice of distinct emotions to focus on that the negative ones overweight the positive ones. In a way, it contributes to previously mentioned imbalances in the Emotions and Social Movements studies. It is however a limitation inherited from the existing literature, unavoidable if one wishes to base their research on top of the previous work, rather than being overly speculative. This is compensated by my focus on positive affect, in addition to negative affect.

In the next subsection, I begin my literature review, as outlined above. At the end of each of the following subsections, I will outline my research hypotheses based on the literature I review in it. These hypotheses will be restated again before the start of the „Results“ section.

3.3 Positive Affect

As already mentioned, positive emotions, in general, have not occupied much of the protest scholars' attention (e.g., Wlodarczyk et al., 2017). However, this tendency seems to be changing in recent years. Some researchers of emotions and social movements (e.g., Tausch & Becker, 2013; Sabucedo & Vilas, 2014; Asún et al., 2020) have started to incorporate emotions of positive valence in their models. My research builds on top of these studies, introducing the Positive Affect construct into social movements research. Since there is no direct theoretical or empirical evidence on PA in the context of protest, the following section shall be based on a combination of existing knowledge on the general behavioral properties of PA and knowledge of the effects of different positive distinct emotions that this indicator contains. I will first outline mechanisms through which PA might contribute to protest participation. Then, I will present some empirical findings that come close to answering the question of how PA is related to protesting.

A very first indication that PA, as a generalized representation of experienced positive emotions, can be expected to play important roles in motivating protest participation can be found in Jasper's 1998 theoretical treatise. Here, this author, one of the leading experts in the field, lists a great number of positive feelings with remarks on how they could be linked with protest participation. Examples include feelings of solidarity and loyalty, as well as pride and enthusiasm, which the

author sees as protest-motivating (p. 406). Similarly, activating actions tendencies have been said to characterize many distinct positive emotions, such as pride, hope, or joy (Pekrun & Stephens, 2010 – as cited in: Tausch & Becker, 2013), and might also be expected to characterize PA, as a construct which summarizes them.

Secondly, PA seems to be linked with certain cognitive propensities towards taking risks, which might make it a motivating factor of protest participation, especially from the **instrumental** perspective on protesting. According to Frederickson (1998), positive emotions are not characterized by easily distinguishable action tendencies (unlike negative emotions), but rather broaden an individual's general „thought-action repertoires", inciting an urge to pursue „pursue novel, creative, and often unscripted paths of thought and action". This often leads to an accumulation of one's physical, intellectual, and social resources (*ibid.*). These can in turn be expected to make one more ready to face risks, more confident, and thus better equipped to face the challenges of protesting – as well as more optimistic (Forgas, 2001 – as cited in: van Troost et al., 2013) towards expected protest-outcomes. Relatedly, experimental studies (e.g., Nguyen & Nouissar, 2014) have shown that positive emotions positively correlate with greater risk-taking. If PA indeed leads to an accumulation of positive emotional and cognitive resources, as suggested above, it might improve the perceived cost-benefit ratios of protesting (Stürmer & Simon, 2004), and make individuals more prone to protest.

The next channel through which positive affect can be expected to motivate protest participation is **social identity**. Asún and colleagues (2020) call our attention to existing evidence, mostly stemming from qualitative research (Britt & Heise, 2000; Flam, 2005), that positively-valenced emotions can strengthen the ties within social groups and intensify one's engagement with a social movement. As a political phenomenon, protests are sometimes said to follow a Schmidtian logic: „Negative emotions must be aroused against enemies, positive ones toward potential allies" (Goodwin et al., 2001, pp. 23-24). Accordingly, while the contentious issue and the opponents tend to incite negative emotional experiences among protest participants, membership within the protesting ingroup tends to raise positive emotions (van Troost et al., 2013, p. 188).

Additionally, positive emotions such as pride and hope have been found to increase **perceived self-efficacy** (Asún et al., 2020; Villavicencio & Bernardo, 2016; Forgas, 2001), and **collective efficacy** (Asún et al., 2020; Tausch & Becker, 2013; Wlodarczyk et al., 2017). To suggest a positive impact of positive affect on perceived self-efficacy and, relatedly, collective efficacy is also fully in accordance with Kemper's structural outlook on emotions (e.g., 2001). According to this author, positive and negative emotions are generated by one's perceptions and expectations of outcomes of the power relations they are involved in. Positive Emotions typically follow an improvement of one's (or their ingroup's) power or status *vis a vis* the other's (or the outgroup) (Kemper, 2001). We can expect these perceived improvements in one's power to positively affect one's sense of control over others, and to have a generally mobilizing effect on one's behavior.

An additional factor that might render positive emotions motivating in terms of protest participation appears when we change the perspective from observing what emotions precede isolated instances of protests to wider protest cycles. Positive emotions are shown to follow protests that are perceived as „successful" and serve as an encouraging, motivational force for inspiring protest continuation (Drury & Reicher, 2005; Tausch & Becker, 2013; Asún et al., 2020). Van Troost and colleagues make an even broader claim, that whatever the actual outcome of protest might be, its organizers will nevertheless attempt to make it appear successful, "to provide their activists with a strong and positive group identification" (2013, p. 201).

Since there are no empirical studies that specifically deal with the connection between PA and protesting, I will present empirical findings that in some way come close to answering the question of how PA is related to protesting.

First, a number of studies deal with distinct positive emotions, showing that they positively impact protest intentions. Wlodarczyk and her colleagues (2017), for example, showed that both hope and anger act as sequential mediators of the relationship between collective action frames and participation in collective action. Asún and colleagues (2020) showed that the intensity of hope and pride experienced during protesting predicts the intensity and frequency of protest participation. In their 2013 study on the effects of emotional responses to outcomes of collective

actions, Tausch and Becker (2013) showed that pride[11] indirectly impacts protest-related action intentions, and does so by increasing perceptions of efficacy.

More closely related to my research goal, Sabucedo and Vilas (2014) studied the impact of several simultaneously experienced positive emotions on protest intentions. These authors showed that a 3-component index of positive emotions (Hope, Optimism, and Pride) mediated the positive relationship between anger and intention to protest. Finally, Landmann and Rohmann (2020) showed that a positive feeling of „being moved" (overwhelmed or stirred by positive feelings) by protest campaigns mediated the effects of perceived collective efficacy on intentions to participate in the protests.

In summation, I would expect that Positive Affect positively correlates with protest participation. Its activating, arousing action tendency and positive (optimistic, hopeful) appraisal components might be very important *predecessors* of protest participation – as in a hopeful expectation that the protests will succeed (Klandermans, 1984; Sabucedo & Vilas, 2014) – leading to a willingness to indulge in collective action despite its potential costs. PA might also be incited *during* protest acts (*ibid.*). Finally, in a long-term perspective of protest continuation, positive emotions that *follow* successful collective actions, and various individual resources they help accumulate (Frederickson, 1998) might also be of great significance (Asún et al., 2020).

Based on these theoretical and empirical considerations, I pose my first hypothesis:

H_1: Positive Affect is positively related to protest participation.

Next, I move on to discussing the role of pride, as a representative of distinct positive emotions, in the context of protest.

[11] As I already announced, I will more directly focus on the emotion of pride will be in the next subsection of this study.

3.3.1 **Pride**

Pride is one of the most prominent distinct positive emotions in the literature that relates emotions with protest participation. It will be featured in this study as the only representative of distinct positive emotions. It can be defined as „as self-conscious emotion which is the positive product of a cognitive appraisal of an event which has made the person aware of him or herself" and in which „the person has compared his or her specific behavior […] favorably against internalized standards, rules, or goals" (Sullivan, 2014, p. 1501 – citing: Tracy & Robins, 2004). Existing literature recognizes many roles this emotion might be playing in motivating and sustaining participation in social movements. According to Sullivan (2014, p. 1501), its an emotion of *achievement*, *agency*, and *identification*. Below, we shall use these three key concepts to structure a brief review of pride's protest-inducing features.

Pride is often seen as an emotion that is closely tied to *achievement*-related activities or outcomes (Pekrun & Stephens, 2010 – as cited in: Tausch & Becker, 2013, p. 527). Using this perspective, Williams and DeSteno (2008) showed that pride which follows successful task completion can facilitate goal attainment in the face of short-term costs. The authors suggest that this emotion promotes perseverance in spite of adversity (Williams & DeSteno, 2008), making it relevant in the context of social movements (often faced with uncertainty and adversities). Brought in closer relation to protesting, participating in collective actions that are perceived as successful is suggested to incite pride, which then motivates future collective actions (Tausch & Becker, 2013). As an emotion of achievement, pride most closely corresponds to the perceived-group efficacy perspective on protest participation. Tausch and Becker (2013) even argue that pride is the emotional component of our group-efficacy perceptions, implying that higher pride corresponds with higher perceived group efficacy – which, as we have seen, is a potent predictor of protesting.

Pertaining to the *agency* aspect, pride's behavioral components, such as its feature to foster public presence in general, and to make one desire to make their success visible to others (Britt & Heise, 2000; Flam, 2005, p. 21) might make this emotion particularly conducive to protest participation. Pride's phenomenological experience is that of „self-enhancement, of being physically larger (e.g., feeling 'puffed'), and of wanting or seeking the attention or the gaze of others." (Sullivan, 2014).

This implies that it is an emotion that moves us to publicly express it. which could play an important role in motivating protest participation. Relatedly, pride is often seen as a precursor of protests, which helps social movement members to overcome demobilizing emotions, such as shame (Flam, 2005, p. 20).

As discussed, pride can be seen as an achievement-related emotion. However, it can also be related to one's wider *identity*, and unconnected to the immediate outcomes of achievement-related activities. According to Jasper (2011), positive reputation, which reflects pride in one's identity, is among the most widespread motives of human behavior (p. 289), and of protesting. Protesting can be seen as a means for articulating own moral principles, which is „always a source of joy, pride, and fulfillment" (Jasper, 1998, p. 418). Pride can also be related to our social identities. For example, increasing pride in our ingroup is seen as one of the signals for the emergence of collective identities (Flam, 2005, p. 21). In group settings, pride can be activated by acting in alignment with the ingroup values (Tangey et al., 2007), which is yet another sign of emerging collective identity. Finally, transforming unpleasant self-evaluative feelings such as guilt or shame into pride is a central goal of many social movements, especially the so-called identity-politics movements (*ibid.*, p. 290; Flam, 2005, p. 21; Britt & Heise, 2000).

Existing **empirical research** on pride in the context of social movements is almost unanimous in showing a positive connection between this emotion and protest participation (either before protesting or following it).

Woods and colleagues (2012), for example, observed „emotional trajectories" of participants in rural protests in Britain, and showed that pride plays an important role in overcoming initial negative emotions (such as fear) and sustaining protest campaigns. Looking back on their protest participation, their respondents reported feeling proud concerning the successful outcomes of collective actions, bringing a social change they deemed valuable and important, sharing adversities with other protestors, and overcoming them (Woods et al., 2012, p. 577).

In their 2013 study on the effects of emotional responses to outcomes of collective actions, Tausch and Becker (2013) showed that pride indirectly impacts protest-related action intentions, and does

so by increasing perceptions of efficacy. Additionally, in their 2021 study of sentiments expressed on Twitter, during the 2011 Egyptian protest movement, Bang and colleagues showed that pride is among the prime emotions that predicted intention to protest, or support for protesters. Pride was also one of the three components of an index of positive emotions (alongside hope and optimism), used by Sabucedo and Villas (2014). As mentioned, these authors showed that these positive emotions predict protest intentions, and mediate the effect of anger on protest intentions.

In summation, much of the reviewed literature points to a positive link between protesting and pride. Pride can be expected to affect protest intentions and participation through the mechanisms of perceived group efficacy and identification with the ingroup. Additionally, its expressive features and related action tendencies make it a very likely protest motivator.

Based on these theoretical and empirical considerations, I pose the following hypothesis:

H_4: Pride is positively related to protest participation.

Next, I move on to discussing the role of Negative Affect in the context of protest.

3.4 Negative Affect

As already mentioned, scholars of emotions and social movements have dedicated more attention to negatively valenced emotions. This is probably based on the **relative deprivation theory's** close focus on negative emotions. More broadly speaking, protest-related grievances – whether it is social deprivation, ecologic pollution, or freedom restrictions – are expected to mostly incite negative emotions, which can contribute to the motives for protesting[12]. Relatedly, a rich body of evidence suggests that anger, as the primary emotional reaction to perceived injustice, acts as a powerful mobilizer of collective action (e.g., Van Zomeren et al., 2004; van Stekelenburg et al., 2011; Stürmer & Simon, 2009). Theories of emotions also provide support for the idea of related feelings such as outrage, indignation, or defiance as emotional states that encourage protest participation (Jasper, 1998).

However, anger and its related feelings (e.g., outrage, indignation) are not the only negative emotions we would expect social injustice and problems to incite. For example, one could just as easily imagine fear or guilt to result out of such situations. This is important to have in mind since, unlike anger, at least some of the emotions felt in the face of protest-related grievances (e.g.: fear, shame) are commonly seen as protest demobilizing (Flam, 2005). Yet, a combined general effect of simultaneously experienced negatively-valenced emotions on protest participation has not been empirically tested. Our study focuses attempts to change this, by focusing on the construct of Negative Affect and observing its relation to protesting. Since this is done for the first time (to the best of my knowledge), I need to inform my expectations through reviewing what is known about protesting and negative emotions in general. I will also draw implications from the available knowledge on cognitive and behavioral features of NA, and attempt to view them from the perspective of socio-psychologic theories of protest participation.

First of all, there are a number of indications that negative emotions can act as strong mobilizers of protest. For example, I have already mentioned that protest occurrences typically involve

[12] Additionally, as suggested by Asún et al. (2020, p. 4), concentrating research efforts on negative emotions might be due to the common research aim of explaining participation in the initial stages of (isolated cases of) protests, and overlooking factors that foster protest continuation over time.

inciting negative emotions towards the ones seen as the opponents of the protest (Goodwin et al., 2001, pp. 23-24). Such other-directed negative emotions can strengthen and solidify a sense of identification with one's social group, as a sense of „us" is created through shared negative emotions towards the „others" – such as those held responsible for the protest grievances, or those opposing protesting. Thus, seen from the perspective of **social-identity theory**, negative emotions can be seen as highly protest motivating, assuming that they are directed at targets other than ourselves and the ingroup. SIT can also support the idea that even some of the ingroup- or the self-directed negative emotions can be protest-mobilizing. Guilt[13] is a notable example of such emotions, as it can move us to repair the damage for which we hold ourselves/the ingroup accountable (e.g., Leach et al., 2006), in order to repair the damaged self/group image.

Additionally, we already explained how **relative deprivation theory**, as another major branch of protest-mobilization theory, points to negative emotions as reflections of grievances one faces and protests against. However, negative emotions need not be seen as side-effects or correlates, or lesser contributors to other, more primary motives for protesting. One can protest with a specific aim to lessen, resolve or transform their unpleasant emotions – as in certain instances of feeling afraid (e.g., Azab & Santoro, 2017), ashamed (e.g., Över, 2021), or guilty (e.g., Rees et al., 2015).

If the so-far presented ideas provided support for NA as a positive predictor of protesting, **instrumental theories** of protest participation offer a more nuanced outlook. From this perspective, NA can be seen as demotivating towards protesting (as a type of risky behavior) – due to NA's cognitive properties, such as the tendency for focusing attention on signs of potential threats and adverse stimuli (Watson & Pennebaker, 1989 – as cited in: Denollet, 2013). According to Denollet (2013), negative affect is often coupled with a heightened reactivity towards stressful events, and with their more pessimistic appraisals. Similarly, according to Forgas (2001 – as cited in: van Troost et al., 2013, p. 188), negative affect is related to "higher risk perception, pessimism, and more rule-based cognitive processes". Additionally, it can have deleterious effects on coping with stress (Depue & Monroe, 1986 – as cited in: Denollet, 2013). This knowledge can be interpreted in different ways with respect to protest participation. Focusing attention on potential

[13] We shall discuss guilt in more depth in a separate sub-section of this study.

threats and a heightened reactivity towards stressful events might be seen as necessary precursors of protest, as cognitive and behavioral „triggers“ leading up to participation in collective action. On the other hand, an increased pessimism and difficulty to cope with stress can be seen as protest-demotivating factors, as they can contribute to the expected losses of protesting overweighing potential gains, and lower perceptions of self-efficacy.

Having considered these somewhat opposing indications, our attempt to discern a general impact of negative affect on protesting, abstracted from the concrete instances of collective action and the concrete emotional targets seems puzzling. Some of the socio-psychologic theories of protest participation seem to support the claim of NA being positively related to protest participation, while others seem to support the opposite claim.

A conceivable way of unifying these different perspectives would be to suggest that NA is in general positively related to protesting (as supported by social identity theory and relative deprivation theory), yet it does not reach its full mobilization potential unless coupled with adequate levels of PA (as can be supported by instrumental approaches to protest participation and the described de-mobilizing cognitive and behavioral properties of NA). We conceive NA as containing mutually opposing features so that its inherent pessimism and risk aversion (protest-demobilizing aspects) might lessen the emotional impact of perceived injustice and shared other-directed emotions (protest-mobilizing aspects). However, a sense of optimism, increased perceptions of self- and group-efficacy, and propensity for engaging in risky behaviors – inherent in PA – might be able to „balance out“ these demobilizing properties of NA[14] (Nerb & Spada, 2001). In other words, NA might have a different effect on protesting dependent on levels of simultaneously experienced PA.

Such a hypothesized „cooperation“ of NA and PA in predicting protest can also be recognized in Klandermans, 1984 – as cited in: van Stekelenburg et al., 2014. It would be in accordance with Jasper’s (2011) concept of “moral batteries”. This relatively under-researched concept can be

[14] This might be especially important for mobilizing more intense and risky types of protesting action (e.g., public demonstrations, as opposed to signing a petition).

applied to pairs of oppositely valenced emotions that are experienced simultaneously, and whose inner tension creates action-mobilizing potentials (Jasper, 2011, p. 291)[15]. The plausibility of my suggestion is also supported by an empirical study by Sabucedo and Vilas (2014), who showed that negative (anger) and positive emotions can work together in inspiring protest. In their study, anger had most of its impact on willingness to participate in protests mediated through positive emotions (hope, pride, optimism).

In summation, some of the theories I reviewed provide strong indications for NA's protest-mobilizing influence. On the other hand, I have also presented indications that, due to some of its de-mobilizing aspects, NA needs to be coupled with appropriate levels of PA in order to reach its full protest-mobilizing potential. In other words, its effect might depend on the levels of PA, in such a way that as the „underlying" levels of PA increase, increases in NA bring stronger and stronger increases in protest participation.

Based on these theoretical and empirical considerations, I pose two hypotheses:

H_2: Negative Affect is positively related to protest participation.

H_3: The impact of NA on protesting will be positively moderated by PA

Next, I move on to discussing the protest roles of anger, fear, shame, and guilt representatives of distinct negative emotions.

[15] "An emotion can be strengthened when we explicitly or implicitly compare it to its opposite, just as a battery works through the tension between its positive and negative poles" (Jasper, 2011, p. 291).

3.4.1 Anger

Anger is often considered to be the „prototypical emotion of protest“. It is a negatively-valenced emotion, „subjectively experienced as an aroused state of antagonism toward someone or something perceived to be the source of an aversive event“ (Novaco, 2017). Especially as a group-based emotion, it is integrated into the majority of emotions-embued models of protest participation (Landmann & Rohmann, 2020), and is the most often studied emotion in the social movement context. The existing literature is almost unanimous in acknowledging its positive, mobilizing impact on protest participation, and confirming it empirically (e.g., Tausch & Becker, 2013; Wlodarczyk et al., 2017; Sabucedo & Vilas, 2014; Stürmer & Simon, 2004). In the following section, we well present theoretical perspectives and empirical work on the link between anger and protest participation will be presented.

Historically, anger has been linked with protest behavior since the very earliest systematic attempts to explain this and similar forms of collective political action (Le Bon, 1947, as cited in: Stürmer & Simon, 2009, p. 684). These attempts were however mostly reductionist and viewed protests in general as irrational, violent, and de-individualizing outbursts of „primitive emotional impulses“ (Stürmer & Simon, 2009, p. 684). *Contemporary* approaches to anger in the context of protest participation tend to see it as an emotion that reflects perceived oppression, unfairness, and illegitimacy in the way one is being treated (van Zomeren et al., 2004, p. 650). It is often seen as an emotion whose main political purpose is motivating strives for justice (Holmes, 2004, p. 209).

Anger is characterized by distinct phenomenology (Stürmer & Simon, 2009, p. 684) and action tendencies. According to Averill (1983), common characteristics of anger are a high level of arousal and agitation, as well as „approach orientation and intentions to take action” (as cited in Iyer et al., 2007, p. 574; see also: Leach et al., 2006, p. 1234). This emotion „is associated with the goal of actively challenging injustice and confronting the agents responsible”, at both interpersonal and intergroup levels (Iyer et al., 2007, p. 574). Also important is anger’s attributional structure: seeing others as responsible for undesirable situations or outcomes, coupled with a high perceived self- or ingroup- efficacy (van Troost et al., 2013; van_Stekelenburg et al., 2011, p. 95). In other

words, anger fits well with both relative deprivation theory and perceived (group) efficacy explanatory models of protest participation.

Social movements often try to mobilize anger's activating potentials. They are often seen as actively encouraging feelings of anger (Flam, 2005), and changing cultural "feeling rules" which demand that the opposed groups suppress their anger (Flam, 2005; Holmes, 2004, p. 209). Social Movements incite righteous anger in their members, as a counterpoint to fear (Britt and Heise, 2000), as empirically shown by Robnett (1997, as cited in: Ruiz-Junco, 2013).

Targets of anger can be manifold, as with any emotion. Typically, anger is aimed at others (Leach et al., 2006), since they are the ones thought of as responsible for a certain injustice done to the self/ingroup (Iyer et al., 2007). However, this does not have to be the case. One can feel angry at themselves or their ingroup as well. Anger can also have unknown, unclear, or undifferentiated sources (Kashdan et al., 2016). In the context of protest behavior researchers tend to group-based anger directed at others, the „opponents" (e.g., Flam, 2005, p. 20). Such is the focus of principle integrative models of protest participation, which debate about the exact causal pathways of anger's impact on protesting, yet do not dispute its significance. According to van Zomeren and colleagues (2004), „collective disadvantage, appraised as unfair makes social identity salient and leads to group-based anger" (van Zomeren et al., 2004, p. 650). It is this, group-based anger, that they expect to then „explain group members' tendencies to take collective action to address their collective disadvantage" (*ibid.*). Stürmer and Simon (2009) have similarly suggested that group-based anger has a direct impact on social movement participation. On the other hand, Van Stekelenburg and colleagues (2011) suggest that, rather than impacting protest participation directly, through its own specific causal path, group-based anger rather intensifies pre-existing motives of protest participation, mediating between instrumental motives and protest participation, on the one hand, and between ideological motives and protest participation, on the other.

This is however not the only type of anger that can be experienced. Iyer and colleagues (2007), as well as Leach and colleagues (2006), studied the effects of self-focused, or ingroup-focused anger on protesting intentions. Their results show that this type of anger mobilized protest behavior, with the goal of repairing the damage done by the ingroup. However, since this type of anger is based

on acceptance of self's or the ingroup's responsibility for causing a given transgression, it is difficult to clearly distinguish from guilt (Leach et al., 2006), which is an emotion we will consider in a separate sub-section.

As already mentioned, empirical research on group-based anger as a predictor of protest participation is rich and almost unanimous in confirming this emotion's mobilizing effects. For example, Iyer and colleagues have shown that American citizens' anger at their country's occupation of Iraq predicted intentions to confront those responsible for it (2007). Sabucedo and Vilas (2014) showed that anger aimed at political decisions predicts intentions to protest against them. Bang and colleagues showed that anger-imbued tweets predicted probabilities of participating in Egypt's 2011 anti-government protests (2021).

There are however also examples of works that show that anger is not necessarily protest-motivating. It seems like when anger is not focused and clearly directed at political/protest opponents, it can lead to a dispersion of protest potentials. Mary Holmes (2004), for example, showed how „unrestrained, personalized expressions of anger" directed at fellow activists in the second-wave feminist movement in New Zealand brought divided and weakened the movement (as cited in: Flam, 2005, pp. 35-36). Relatedly, Javeline (2003) showed how attributions of blame distinguished protesters from non-protesters in public demonstrations in 1990s Russia. While the non-protesters were unsure about who to hold responsible for wage arrears, protesters were able to direct their anger at clearly identified political opponents, deemed guilty for their problems (Javeline, 2003 – as cited in: Ost, 2004, p. 241). Abstracting from these findings, it seems like anger's protest-mobilizing impact depends on its other-directedness.

Another possible qualifier of anger's impact on protesting might be found in the perceived efficacy that accompanies it. Typically, we expect anger to be related to high degrees of the perceived group- or self-efficacy and thus activating. However, feelings that appear similar to anger can have de-activating effects when combined with low perceived efficacy. A good example is the feeling of resentment, which might lead to inaction, since it arises from a perceived unlikeliness that the unfavorable conditions might improve (Folger, 1987; as cited in: van Zomeren et al., 2004).

In summation, most of the theoretical and empirical works on anger seem to indicate it has a positive impact on protest participation. Although this general tendency can further be more subtly qualified (preconditions of anger's mobilizing effects seem to include perceived self/ingroup efficacy, as well as outward-/outgroup-oriented attributions of blame), I would still suggest that anger's overall impact on protesting is mobilizing.

Thus, I pose the following hypothesis:

H_5: Anger is positively related to protest participation.

In the next subsection, I will elaborate on the role of fear in (de)motivating protest participation.

3.4.2 Fear

Fear is usually seen as an emotion that de-mobilizes and deters potential protest participation (Azab & Santoro, 2017; Gamson, 1992; Jasper, 1998; Flam, 2005). Some authors (e.g. Barbalet, 1998 – as cited in Azab & Santoro, 2017) even speak of a consensus in social sciences regarding fear's demobilizing effects for protesting. Yet, there are indications that under certain conditions fear can act as a motivator of protest (e.g., Kleres & Wettergren, 2017; Azab & Santoro, 2017). In order to formulate my own expectations about fear's relation to protesting, I will first draw a rough outline of fear's cognitive and behavioral dimensions. Then I will consider arguments for both views on fear's suggested relationship with protest participation.

According to Frijda, fear's main appraisal components are that of uncertainty and uncontrollability (Frijda, 1987, pp. 140-141). Relatedly, fear induces avoidance and behavioral inhibitions (ibid.), and signals „incapacity to deal with danger" (Barbalet, 1998, p. 153). It is linked with a tendency for escaping and avoiding harms[16] that the self is facing (Lohr & Adams, 2009; van Troost et al., 2013). Importantly, Mackie and colleagues (2000) have shown that appraisals of uncontrollability and weakness are linked with fear both in *interpersonal* and *intergroup* settings.

Even though behavioral effects of fear are commonly seen as „paralyzing" (Jasper, 1998, p. 406), or „freezing" (Lohr & Adams, 2009), under certain conditions fear has been suggested to have a motivating effect on behavior. This likely depends on the perceived levels of controllability of the given situation/outcome. If responsibility for a feared outcome (e.g., climate change) can be attributed to an outgroup that one can conceivably act against, rather than to „uncontrollable" causes (e.g., natural catastrophes), fear can motivate action (van Troost et al, 2013; Barbalet, 1998; Jasper, 1998, p. 406). However, in this example, fear might feature only indirectly in motivating action, as the shifts in blame attribution may transform it into a different emotion altogether – that of anger.

[16] One can not only fear physical harm to the self, but also threats to the self-image (Jasper, 1998), such as losing social status, being publically humiliated and judged (Kemper, 2001, p. 71). In other words, one can also fear unpleasant social emotions.

Barbalet (1998) suggested that fear's demobilizing action tendencies might depend on its intensity. According to this author, less intense experiences of fear – connected with appraisals of partial rather than complete uncontrollability – can motivate a re-examination of the potential action courses, rather than paralyzing action altogether (as cited in: Kleres & Wettergren, 2017). Aminzade and McAdam (2001, p. 17) additionally suggest that when fear is coupled with other emotions with higher coping qualities (e.g., anger), it can motivate action – even if the fear is very intense, and even if individuals are faced with extreme risks (as cited in: van Troost et al., 2013). Kemper (2001, p. 67) similarly suggests that when anger occurs alongside fear, in such a way that anger is the prevailing emotion, it can suppress fear and its demobilizing effects. However, if fear is the more intense emotion in the anger-fear pair, it can render anger less powerful as a mobilizer of protest (*ibid.*). Relatedly, empirical research offers both examples of anger suppressing fear (Robnett, 1997, as cited in: Ruiz-Junco, 2013), as well as fear triumphing over anger (Miller et al., 2009 – as cited by: Asún et al., 2020).

In the context of protesting, fear is often seen as a **demobilizing emotion**. It is often suggested that protest organizers need to employ specific means to help protest participants in overcoming it. In order for individuals to take part in protesting at all, they need to overcome fears (e.g., of failure, others' negative reactions, or punishment) – through suppressing or transforming them into more potent emotions (such as anger or moral outrage) that can be directed at concrete political actors (Jasper, 1998; Flam, 2005; Kemper, 2001; Gamson, 1992; Woods et al., 2012). If this does not happen, fear is often expected to de-mobilize protesting.

Protesters often fear negative responses of the political system they are challenging – such as having to pay fines, being arrested, or physically punished (Woods et al., 2012). Fear plays a special compliance-invoking role in repressive political contexts, where it is maintained by threats of harsh and violent state reprisals in the case of disobedience or protest, and serves as a difficult-to-overcome protest barrier (Flam, 2005, p. 20; Nikolayenko, 2022). However, even in democratic contexts, fear can facilitate conformism – as Flam demonstrates on the example of job- or life chances-related fears, which keep people working for the firms they are personally critical of (Flam, 2005, p. 23).

Additional empirical examples of fear as a protest demobilizing emotion can be found in the study conducted by Asún and colleagues (2020), who showed that fear (concerning protest-grievances, as well as fear experienced during protests) is negatively related to the frequency of protest participation. Similarly, Nikolayenko shows that fear of state reprisals stalled protesting, and had to be overcome, for individuals to engage in 2020 anti-regime protests in Belarus (2022). Lastly, prejudice and fear can be elicited by public representations of certain social movements, and motivate not-protesting, as shown by Hoffman and colleagues (2016), on the example of the Black Lives Matter movement.

I have so far presented examples of fear's protest-demobilizing effects. However, there are also cases when fear was shown to have a **positive relationship with protesting**. Their common feature seems to be that fear is not the only emotion experienced by the protesters – it is rather coupled with other, more mobilizing emotions. For example, Kleres and Werrergren showed that fear can motivate environmentally-protective collective actions since it raises awareness of environmental threats (2017). However, since it also has paralyzing aspects, protesters and protest-mobilizers in their study emphasized hopeful messages to denounce them (Kleres & Wettergren, 2017).

Fear's motivating potentials, related to how it signals awareness of the given problem, were also shown in the study of Azab and Santoro (2017). According to these authors, the *absence* of fear in „racially repressive surroundings" (p. 477) signals a lack of awareness of racial injustice and cognitive frames necessary for activism. People experiencing *high levels* of fear will also likely be demobilized due to high perceived threats, while this emotion's *intermediate levels* reflect awareness and experience of racial inequalities, and can be protest-mobilizing (p. 478). Their research showed that, compared to both low high levels of fear, intermediate levels of fear among members of the Arab-American community were linked to a higher rate of protest participation. Unfortunately, they do not test how anger – as an emotion that closely corresponds to injustice action frames (Gamson, 1992) – might have been connected to their respondents' different levels of fear.

Another way fear can indirectly motivate protesting can be seen in Nikolayenko's 2022 study. She shows how a desire to lose the constant, all-surrounding fear can in itself be a powerful force behind anti-regime protests. She writes how a loss of fear and moral indignation mutually reinforce each other, acting as a „moral battery" (Jasper, 2011) which generates and sustains protests in hard autocracies. Similarly, according to von Eschen and colleagues (1969 – as cited in: Bang et al., 2021, p. 3), the fear of police brutality was the main factor leading to the protest movement of Afro-Americans in Maryland.

Finally, in a study of tweets concerning the 2011 Egyptian civil movement, Bang and colleagues have shown that fear (but also anger, pride, sadness, happiness, and hope) expressed in tweets signaled an increased probability of protesting intentions and supporting protests (2021).

In an attempt to formulate my own expectations regarding fear's relationship with protesting, I am once again faced with seemingly opposing pieces of evidence. On the one hand, I have presented how fear, with its related perceptions of own/ingroup weakness and uncontrollable threats, might be protest-demobilizing. I have also presented how this idea is advocated by numerous protest researchers, and supported by empirical data. On the other hand, I have presented theoretical and empirical indications that fear can sometimes motivate protesting, especially if it is coupled with other, more activating emotions, such as anger or hope.

I will attempt to reconcile these findings by firstly hypothesizing that fear, on its own, has a generally negative impact on protesting. However, I will also suggest that its negative impact can differ depending on the levels of simultaneously felt anger. As a more activating emotion that is linked with appraisals of the strength of the self or the ingroup (as opposed to fear's perceived low self- and group-efficacy: van Troost et al., 2013), anger has a potential to „balance-out" fear's demobilizing aspects. Additionally, anger implies clear blame attributions, and perceiving others as responsible for undesirable situations or outcomes. Thus, feeling strong anger simultaneously with fear might signal that the threat is no longer seen as uncontrollable or unavoidable and that it can be acted/protested against. Following Kleres and Wettergren (2017), as well as Azab and Santoro (2017), I would expect that when fear is combined with anger, it signals a motivating and

„triggering“ awareness of protest-related grievances (e.g., environmental pollution, social inequalities, etc.), rather than perceived weakness.

In other words, I suggest that fear's impact on protesting might depend on the levels of simultaneously felt anger. I expect that as the „underlying“ levels of anger increase, more and more of fear's demobilizing aspects are „balanced out“ by them. Thus, with increases in anger, fear's mobilizing and perhaps even protest-triggering „problem-awareness“ aspects start to prevail over its demobilizing aspects, resulting in stronger and stronger increases in protest participation.

Based on these theoretical and empirical considerations, I pose the following hypothesis:

H_6: Fear is negatively related to protest participation.
H_7: The impact of fear on protesting will be positively moderated by feeling angry.

Next, I move on to discuss the role of shame in the context of protest.

3.4.3 Shame

The shame belongs to the family of secondary, socially and culturally conditioned (Bericat, 2016), and self-focused emotions. It is itself is sometimes seen as a multifaceted family of emotions, including such variants as humiliation, embarrassment, and shyness (Över, 2021, p. 3). It is best defined in contrast with guilt, since the two terms are sometimes used as synonyms, without acknowledging differences in the appraisals that shape them, nor their different behavioral consequences. I will first explain this difference, and then more closely focus specifically on shame. I will outline its protest-relevant characteristics, and review empirical work on this emotion in the context of protesting.

Shame and guilt are both self-conscious and self-evaluative emotions; they also tend to strongly mutually correlate and are often experienced simultaneously (Miceli & Castelfranchi, 2018, p. 710). Both are often seen as social or moral emotions, „because they tend to assure the adherence to social norms through their internalization, without requiring the use of external sanctions“ (Pivetti et al., 2016). Finally, both result out of a breach of internalized social norms.

Their difference lies in the target of the negative feelings – the *self* in case of shame, as opposed to the more limited *inappropriate action* one has undertaken, in the case of guilt (Pivetti et al., 2016; Shepperd et al., 2013, p. 43). In other words, guilt's focus lies on specific transgressing actions („I did a bad thing“), while shame is concerned with „stable aspects of one's character“, to which one attributes the given transgression/failure/inadequacy („I am a bad person“) (Iyer et al., 2007, p. 575; de Hooge et al., 2018). Thus, guilt can be detached from the self to a certain degree, not affecting one's core identity (Pivetti et al., 2016). On the other hand, shame is linked specifically to the individual or ingroup identity, as it reflects the belief that the given transgression reveals a deeper identity flaw (Lickel et al., 2005, as cited in: Iyer et al., 2007, p. 575). Empirical findings also show that the two emotions differ in their related physiological symptoms and expressive reactions (Pivetti et al., 2016; Wallbott & Scherer, 1995).

Having delineated between shame and guilt, I now move on to considering protest-relevant properties of feeling ashamed.

First of all, shame's action tendencies are generally thought to include hiding and withdrawal from the situation which evoked it, as well as passivity (Tausch & Becker, 2013; Burmeister et al., 2019; de Hooge et al., 2019). Shame's negative effect on self-esteem is strong, and it is related to feeling weak and helpless (Wicker et al., 1983 – as cited in: Wallbott and Scherer, 1995). Based on this, we could expect this emotion to negatively impact one's perceived self-efficacy. However, more important for its relation with protesting are its effects on perceived group efficacy and social identity, which I will discuss next.

There are strong empirical indications that shame affects group formation in negative ways. Good examples thereof can be found in the study of Burmeister and colleagues (2019, p. 286), who cite studies that show: that self-oriented actions and avoiding others are typical responses to shame (Orth et al., 2006); that shame increases „self-directed personal distress" and decreases „other-oriented emphatic responsiveness" (Tangey, 1991 – as cited in: Burmeister et al., 2019, p. 286); that it reduces the likelihood of engaging in positive relational behavior (Bagozzi et al., 2003), and is not connected with compensatory tendencies towards ingroup members (Ghorbani et al., 2013).

However, a newer line of research obtained contrasting evidence – that shame, especially as a *group-based emotion*, might have positive consequences for interpersonal behavior (de Hooge et al., 2018). Shame can be felt not only as a result of one's own actions or inadequacies but also as a result of inadequacies of (members of) one's ingroup (Welten et al., 2012). In such a scenario, it is not our identity as individuals, but rather our social identity which is under threat (*ibid.*). In such instances, shame can exhibit pro-social behavioral tendencies. For example, feeling ashamed of the actions committed by one's nation or country (harming other countries or ethnic minorities) was found to be linked with compensatory behavioral tendencies towards the harmed ones (Gausel et al., 2012; Iyer et al., 2007).

When shame is brought in a closer relation with protesting, empirical research, even though relatively scarce, seems to point towards its positive impact on protest participation. Protests can also be a way of overcoming long-term feelings of shame – as in the case of Turkish journalists who protested against their government in order to overcome shame due to their years-long political inaction and self-censorship (Över, 2021). Another notable example of protesting that is

partly motivated by shame, and serves as a means to overcome and transform it, is that of marginalized communities' protests (e.g., LGBT community's Pride movement). Identity politics and movements in general, are aimed at countering the shame-eliciting norms of the wider society and re-establishing "shameful" identities into a source of pride (Britt & Heise, 2000). Shame as a motivator of collective action can also be found in the study by Rees and colleagues (2015). These authors have shown that shame and guilt in individuals confronted with environmental damages caused by humans (as opposed to „natural" damages) increase their likelihood to advocate for pro-environmental behavior (signing a petition). Additional examples can be found in studies by Iyer and colleagues (2007), as well as Shepherd and colleagues (2013). These authors show that shame due to unjust actions of one's country/ingroup motivates willingness to protest against them.

Finally, even though shame can conceivably follow participation in protests that are seen as inappropriate by one's relevant others, *not-protesting* for an important social cause can also elicit shame (Kim, 2002).

In summation, the previous review of shame's properties and relatedness with protest faces us with a dilemma. On the one hand, I have presented strong indications of shame's de-mobilizing, withdrawal, and self-centered action tendencies. On the other hand, I have also presented indications of its prosocial influences on behavior – especially when it is experienced as a group-based emotion. Even more importantly, most of the empirical research that puts shame directly in the context of protesting indicates that this emotion can act as its strong motivator: certain instances of protesting can be seen as a means of improving the threatened self- or ingroup-image, reducing shame and transforming it into pride.

A way of unifying these different perspectives would be to use the same strategy as with PA and NA. In other words, I will hypothesize that shame is generally positively related to protesting (as most of the protest-related scholarship suggests), yet that it does not reach its full mobilization potential unless coupled with adequate levels of pride (a more activating, publicly expressed emotion).

I expect that pride, as an activating emotion connected with high perceived self-efficacy, can balance out the passivity and withdrawal aspects of shame. As an indicator of a strong social identity and high perceived group efficacy, I would also expect it to balance out self-centered aspects of shame. Although pride would balance out shame's protest-demobilizing features, it would still leave its identity-threat aspect intact. This, cognitive and social aspect of shame could still serve as a direct and potent „trigger" of protesting. In a way, two opposing emotional experiences would have a combined effect on protesting, which closely corresponds to Jasper's (2011) moral batteries theory.

To restate yet again, I would expect shame to exert its strongest protest-mobilizing influence on those individuals who experience certain ambivalence regarding their identities (see: Gould, 2001 – as cited in: Goodwin et al., 2000): shame coupled with pride. This can be illustrated by cases of protestors who, apart from being ashamed by a certain action of their countrymen or government, still take pride in their national identity and protest to repair the damage done to it. Another example would be that of a member of a marginalized group who, in addition to feeling ashamed for not adhering to mainstream society's norms, also takes pride in being a member of their group. In both cases, I would expect shame's effect on protesting to depend on the „underlying" levels of pride, in such a way that as pride increases, increases in shame bring stronger and stronger increases in protest participation.

Based on these theoretical and empirical considerations, I pose the following hypotheses:

H_8: Shame is positively related to protest participation.
H_9: The impact of shame on protesting will be positively moderated by feeling proud.

Next, I move on to discussing the role of guilt in the context of protest.

3.4.4 Guilt

As already discussed, guilt is often seen as a pro-social, self-conscious, and self-evaluative emotion (e.g. Tangney & Fischer, 1995; Miceli & Castelfranchi, 2018). Most of the scholarly work on guilt in the context of protesting focuses on its reparative and compensatory action tendencies (Leach et al., 2006, p. 1233). Since I already elaborated on general theoretical considerations of guilt, I will now briefly outline its action tendencies. Then, I will present empirical studies on guilt in the context of protesting.

Guilt's behavioral features seem to be less ambiguous, and less de-activating than those of shame. According to Wicker, Payne, and Morgan (1983), guilt influences one's perceived self-efficacy and self-esteem less negatively than shame (as cited in: Wallbott & Scherer, 1995). Weiner (1985) showed that guilt that results out of a failure leads to an improved future effort, rather than withdrawing, as in the case of shame (as cited in: Tausch & Becker, 2013). Even though there still are some disputes (e.g., guilt is sometimes seen as a de-mobilizing or low-action-potential emotion – see: Flam, 2005; Leach et al., 2006, p. 1234), most of the researchers agree that guilt activates and motivates individuals to repair damages for which for they hold themselves (or their ingroup) responsible. This property is shown both for guilt as an „individual" (Pivetti et al., 2016) and as group-based emotion (McGarty et al., 2005, p. 665; Frijda et al. 1989, p. 221).

Although there is more scholarly work on guilt than on shame in the context of protest, this research is still relatively scarce (Tang & Cheng, 2021). Research typically focuses on guilt's group-based manifestations. Identifying with an ingroup that is seen as having caused certain harm to outgroups can elicit feelings of guilt even in individuals who have not had a part in the given transgression (Doosje et al., 1998). As long as the individuals accept their group's responsibility in causing the given harm, and identify with the group, they can feel guilty in the ingroup's name, for harmful actions in either past, present or potential future (Weiner, 1995, p. 423). Following Social Identity Theory, group-based guilt can be seen as a threat to a positive ingroup's image, which is why acting in a reparatory manner, with the aim of improving threatened image, is a typical response to it.

To illustrate its political relevance, Thomas and colleagues (2009, pp. 315-317) give examples of historically motivating instances of collective guilt, such as „White guilt“ (due to historical maltreatment of African Americans and the continuing social inequalities in the US), guilt due to various nations' colonial past; due to Second World War atrocities; guilt due to gender inequality). They also mention the concept of „existential guilt“ (Hoffman, 1976 – as cited in: Thomas et al., 2009), which is broadly related to undeserved intergroup advantages.

Having these manifold types of collective guilt in mind, one might expect this emotion to function as a strong motivator of protest, especially in settings such as the anti-racism movement, or the climate protection movement. Rees and colleagues (2015) for example, have shown that confronting individuals with environmental damages caused by humans (as opposed to „natural“ damages) elicits „guilty conscience“ (feelings of guilt and shame) and increases the likelihood to advocate for pro-environmental behavior (signing a petition). Similarly, Jacobsson and Lindblom (2016) have found it to motivate the Animal Rights Movement (as cited in: Kleres & Wettergren, 2017, p. 508). Additionally, Leach and colleagues (2006) found that group-based guilt due to ingroup advantages can motivate protest against them.

Another role guilt can play concerning protests is that of a „bystander emotion“ (Tang & Cheng, 2021). According to Kemper (2001), guilt is often felt by people who do not participate in social actions they perceive as important and valuable, such as protesting for valued social causes. This type of guilt contains mobilization potentials, as shown by Tang and Cheng (2021). These authors demonstrated how bystander guilt helped inspire support for and solidarity with radical protesters in Hong Kong among senior citizens. Finally, these authors also suggest that collective guilt has the potential to strengthen collective identities and increase solidarities since it motivates reparative actions that symbolically re-establish and reaffirm social groups (*ibid.*).

In summation, in guilt, we observe a pro-social, motivating emotion which I would expect to be positively related to protesting. Its behavioral aspects seem to be more unanimously activating than those of shame. Similarly to shame, guilt poses a self- or ingroup-identity threat, and protesting can be a means for elevating it, as it fits especially well into guilt's related tendency of

acting in a reparatory manner, and compensating for the transgressions attributed to the self or the ingroup.

Based on these theoretical and empirical considerations, I pose the following hypothesis:

H_{10}: Guilt is positively related to protest participation.

Next, I will present an overview of all my hypotheses, before moving on to describing empirical aspects of my study, starting with my data and methods.

3.5 Summary of hypotheses

In this brief section of my study, I will simply restate my hypotheses, to enable their easier overview. I will group them by the type of emotional experience they refer to (PA and NA, as opposed to distinct emotions).

Hypotheses 1, 2, 4, 5, 6, 8, and 10 refer to the so-called „main" effects.
Hypotheses 3, 7, and 9 refer to moderation effects.

Positive and Negative Affect:

H_1: Positive Affect is positively related to protest participation.
H_2: Negative Affect is positively related to protest participation.

H_3: The impact of NA on protesting will be positively moderated by PA

Distinct emotions:

H_4: Pride is positively related to protest participation.
H_5: Anger is positively related to protest participation.
H_6: Fear is negatively related to protest participation.
H_7: The impact of fear on protesting will be positively moderated by feeling angry.
H_8: Shame is positively related to protest participation.
H_9: The impact of shame on protesting will be positively moderated by feeling proud.
H_{10}: Guilt is positively related to protest participation.

4 DATA AND METHODS

This section of the study briefly describes my dataset, as well as my choice of indicators for operationalizing the main concepts I am interested in: different emotional experiences and protest participation. It also contains an overview of the analytic strategy which I will use to test my hypotheses, and explore the connections between emotions and protesting.

4.1 Data

This study uses a unique dataset that was obtained as a part of the Berlin University Alliance (BUA) collaborative research project "Social Cohesion and Civil Society" (which I will often abbreviate as „SolZiv"). The dataset covers many topics that correspond to the project's general research aim of investigating civic engagement in the conditions of the Covid-19 pandemic (SolZiv, 2020). The data was collected through an online survey, which ran in five European countries: Germany, Austria, Switzerland, Italy, and Poland – from **October 6 to November** 4, 2020. A quota-sampling procedure was applied, meaning that social structures of each of the five countries' subsamples (in terms of age, gender, and educational levels) match official Eurostat data from 2020 (Borbáth, not yet published). Also within the SolZiv project, a part of respondents from Germany was re-interviewed (1004 out of 3504 German respondents from the first wave), from **March 2, 2021**, to **March 11, 2021**. This additional data serves as the second wave of a panel study that is available for German respondents, and I will use it as an additional robustness check for some of my models.

4.2 Operationalization

4.2.1 Positive and Negative Affect

All of the emotional concepts of my Interest will be operationalized through the Positive and Negative Affect Schedule scale (PANAS; Watson et al., 1988). PANAS scale is commonly used to track changes in emotional experiences over time (Magyar-Moe, 2009, p. 51), and is one of the

most extensively used scales in the research of emotions and moods (Tran, 2013, p. 1508). PANAS encompasses a „two-dimensional conceptual model of mood" (*ibid.*) and includes 20 items: 10 that measure positive[17] mood/affect, and 10 that measure negative[18] mood/affect. The scale measures positive and negative affect as „separate and largely uncorrelated constructs", true to numerous empirical findings that show that positive and negative emotions can be experienced simultaneously and need not be negatively correlated (*ibid.*) and in accordance with one of the fundamental assumptions underlying my study. PANAS scale has been translated into many languages, and many of these translations are validated. SolZiv survey featured validated PANAS translations in three languages: German (Breyer & Bluemke, 2016), Italian (Terraciano et al., 2003), and Polish (Brzozowski, 2010). I will be reflective of the potential impact that subtle translation differences might have on my results.

The exact question wording of PANAS measure may differ with respect to measurement goals, and is often adjusted to fit various measurement contexts – it can be used to measure the respondent's emotional experiences ranging from state affect and emotional responses to certain events to more long-term emotional fluctuations and trait affect (Tran, 2013, p. 1508). In the SolZiv questionnaire, respondents were asked to provide information about their feelings since the beginning of the Covid-19[19]. Thus PANAS scale, as used in the SolZiv survey, can be said to represent a long-term, „global measure of affect" (Magyar-Moe, 2009, p. 51). Respondents rated the individual items on a Likert scale ranging from 1 (Not at all) to 5 (Extremely).

Positive and Negative Affect indexes are commonly constructed by combining the scores of the individual positive and negative affective items within the PANAS scale. This is also how I operationalized PA and NA in this study. Both indexes are known to be characterized by a high degree of internal consistency, as well as „good convergent and discriminant validity"[20] and intercultural and temporal robustness (Tran, 2013, p. 1508).

[17] Interested, Excited, Strong, Enthusiastic, Proud, Alert, Inspired, Determined, Attentive, Active
[18] Distressed, Upset, Guilty, Scared, Hostile, Irritable, Ashamed, Nervous, Jittery, Afraid

[19] The exact question wording, in was: "Please indicate how you have felt since the beginning of the Corona crisis" ("Geben Sie bitte an, wie Sie sich seit Beginn der Corona-Krise fühlen").
[20] Which also characterized my PA and NA indices – see **Table 8** in the Results section.

Possible limitations of using the PANAS scale include its sensitivity to mood fluctuations (Magyar-Moe, 2009 – as cited in: Riopel, 2021). However, both the authors of the scale (Watson et al., 1988) and the latter commentators (Magyar-Moe, 2009, p. 53) note that in its long time frame version, the PANAS scale shows an appropriate level of stability over time. Additionally, it is a self-reported scale, meaning that there can be no way of objectively assessing our respondents' emotions (Riopel, 2021). These or similar limitations are however present in almost every study that measures emotions, and can not be easily bypassed.

4.2.2 Distinct Emotions

Individual items within the PANAS scale are used as the operationalization of distinct emotions within this study.

Pride, **shame,** and **guilt** were operationalized simply through the homonymous PANAS items: „How (proud/ashamed/guilty) have you felt since the beginning of Corona-crisis?" – with answers ranging from 1 („Not at all") to 5 („Extremely").

Anger was operationalized by PANAS feeling *upset* item. Especially in German-speaking subsamples of my dataset, this item's translation (feeling *verärgert*) matches the targeted emotion very closely.

Lastly, for my indicator of **fear**, I combined two PANAS items – feeling *afraid* and feeling *scared*. Pearson's correlation test shows that the two items are highly correlated ($r = 0.66$; $p < 0.001$; $df = 8290$; $t = 79.976$). Additionally, operationalizing fear with these two items has high face validity, as the two terms are typically used as synonyms. I obtained my indicator by summarizing their values for each respondent and dividing the sums by two.

A potential problem due to this way of operationalizing emotions is that we can not distinguish between „individually" felt and „group-based" emotions. This problem will be touched upon again

in the „Study Limitations“ and „Directions for future research“ sections of the paper. Additionally, these indicators do not capture the exact targets of different emotions. Finally, they do not enable us to establish a clear temporal link between emotions and protesting – as they refer to emotions experienced over an entire time period, rather than linked with specific events. I will have these limitations in mind when interpreting my results – however, I will also point out some of the potential benefits of my operationalization in the Discussion section.

4.2.3 Protest Participation and Protest Activities

For operationalizing protest participation, I used a set of questions from the SolZiv survey which probed into how often the respondent took part in five types of protest activities since the beginning of the Corona crisis:

- signing a petition/collecting signatures,
- posting or sharing political content online,
- participating in online protest actions,
- protesting in approved actions in public space – e.g., demonstrations, human chains,
- participating in non-approved protest actions[21].

The possible answers ranged from „never“ (1) to „very often (5).

A potential downside to using these individual indicators of protest types is that an overview of our data shows that there is a high overlap between participating in different types of protest[22]. That is why I developed a single summative index that unifies these 5 variables – one that captures their uniqueness in terms of varying intensities and degrees of confrontation they assume, as well as numerically accounting for the possibility of taking part in more than one protest type.

To create this index, I assigned different multiplicative factors to each of the 5 indicators, based on their estimated degrees of confrontation, collectivity, intensity, and publicity. *Signing a petition,*

[21] Exact question wordings, in German are available in this study’s Appendix – Section: **Survey Questions.**
[22] See: Appendix, **Table 1A**.

as the arguably most passive and private type of protesting was assigned the lowest factor (1). I saw *posting political content online* as a more confrontative activity than signing a petition, since its results are more easily visible by the others, who may not agree with it (e.g. one's „friends" on social networks). *Online protesting actions*, such as online boycotts are characterized by a yet higher degree of collectivity and have more immediate and intense consequences, so I assigned them factor 3. *Illegal demonstrations*, as unambiguously the most confrontative of all the five protest types were assigned the highest factor (5), followed by participating in *approved public demonstrations* (factor 4)[23].

The index was built by first recoding each individual indicator so that their span is 0 (never) to 4 (very often). Then, I multiplied response items for each individual indicator with its assigned factor, ranging from 1 (signing a petition) to 5 (participating in illegal demonstrations). The final indicator was built by summing up the scores for each of the five types of protest. It ranges from 0 (for those who have not participated in any protest activity since the start of the pandemic) to 60 (for those who have participated in each type of protest very often). Higher values of this indicator indicate a combined frequency of protesting, as well as participating in multiple, and increasingly „intense" protest activities.

I consider this indicator superior to each of its components taken in isolation, as it captures their different degrees of confrontation and public visibility, as well as their overlap in a single score. I will refer to it as the „joined indicator of intensity and frequency of protesting". Sometimes I will also denote this indicator as *the* protesting indicator, or the "joined/combined protesting indicator".

Combining such different activities into one indicator of protest is theoretically accounted for by how our study defines protesting. It has an additional pandemic-related benefit since it includes both indoor and outdoor activities – the ones that can be undertaken while adhering to the social distancing recommendation/rule, and the ones which can not. Thus, our indicator increases the likelihood of obtaining sufficient variance in the protest-participation variable.

[23] Importantly, descriptive statistics on frequencies of participating in different types of protest activities, which I report in the Results section of this study (**Table 4** and **Table 5**), provide unambiguous empirical support for such assignment of multiplicative factors.

SolZiv dataset also includes indicators of several issues that motivated protesting:

- protesting against racism;
- protesting for climate protection;
- protesting against freedom restrictions due to the Corona crisis;
- demanding more state economic aid due to the Corona crisis;
- protesting for other causes.

Since my research aim is to determine the general impact of emotional experiences on protesting, I will not focus on these indicators, but rather focus on my „combined protesting indicator". I will however potentially use these more specific indicators to add interpretational depth to some of my findings.

4.3 Research methods and analytic strategy

In order to test the previously described hypotheses, I will use a relatively straightforward analytic strategy. For testing the main effects hypotheses, I will perform **multivariate ordinary least squares (OLS) regressions**, with different indicators of emotions (as outlined above) as predictors of my joined indicator of protesting intensity and frequency. For testing the moderation hypotheses, I will be adding respective interaction effects to these models[24]. As an additional robustness check of these models, I will repeat the same process on the data from the second wave of the SolZiv panel study (n = 1004). This strategy fits perfectly with my research aims, as it allows me to study distinct emotions' impacts, while controlling for the effects of other, simultaneously experienced and likely correlated emotions. Additionally, OLS models are simple to interpret. They enable a comparison of the effect of different predictors and provide indicators of the models' explanatory power.

[24] I attempted to run multilevel linear regression models, thinking that potential country-level embeddedness of the individual data might otherwise impact my findings. However, this proved unnecessary, as the proportion of variance of my dependent variable attributed to the individual respondents overweighs the proportion attributed to their countries, as higher-level units (the Interclass correlation coefficient of these models is never larger than 0.01). In other words, no substantial explanatory gains would have been made by using the multilevel models (Klein, 2007, p. 241 – as cited in: Uhr, 2021).

Even though the primary interest of this study is a causal question of how emotions impacted protesting behavior, I am obliged to refrain from interpreting my results causally. To briefly remind the reader, the data I am working with does not put the indicators of my interest (emotions and protesting) in any direct temporal connection. I am unable to tell whether the emotions reported by the respondents existed before their protest engagement, possibly impacting it, or followed after protesting, possibly impacted by it. The true relationship is very likely two-way. Thus, when interpreting the results I obtained, I will carefully indicate where the previous scholarly work suggests that the relationship might be causal, and in which direction, rather than making any strong causal claims.

The second part of my analysis will be exploratory, rather than hypothesis-testing. My hypotheses do not nearly exhaust the richness of the dataset I am using, and interesting findings on the connection of emotions and protesting during the Covid-19 pandemic might be gained through using more complex statistical methods such as exploratory factor analysis (EFA) or latent class analysis (LCA).

Exploratory Factor Analysis (EFA) belongs to the family of factor analysis statistical methods, which can be used „when the research goal is to identify the number of common factors [internal attributes] and the pattern of factor loadings“ (Norris & Lecavalier, 2010, p. 8). The rationale behind my use of EFA is to potentially uncover whether the underlying structure of the 20 PANAS items differs for the people who have participated in protests, as compared with those who have not.

Latent Class Analysis (LCA) is a type of Structural Equation Modeling. Its main use lies in identifying groupings – the so-called „latent classes“ – of multivariate categorical data (Lazarsfeld & Henry, 1968). Expressed in more technical terminology, „LCA is used to detect latent (or unobserved) heterogeneity in samples” (Hagenaars & McCutcheon, 2002 – as cited in: Weller et al., 2020, p. 288). As Weller and colleagues write, “it is a special case of person-centered mixture modeling that identifies latent subpopulations within a sample based on patterns of responses to observed variables” (*ibid*., citing: Muthén & Muthén, 2000). I will be applying it to SolZiv

indicators of different types of protesting activities, intending to capture underlying patterns of the respondents' protest engagement. I will then use the obtained latent classes to test whether they possess differential emotional characteristics. For this aim, I will use the one-way analysis of variance (ANOVA) technique to test whether the average reported intensities of distinct emotions (such as pride or fear) differ between the „latent classes" of protest activities.

From the previous paragraphs, it can be observed that LCA and EFA will have a similar purpose in my study – I will use both to identify underlying commonalities in my data and reduce its complexity. The main difference lies in the type of data I on which will be applying these techniques. LCA should be applied on interval scales (Norris & Lecavalier, 2010, p. 9) – as my emotional indicators are, and EFA on categorical data (Lazarsfeld & Henry, 1968).

I will conduct all the analyses in either R (R Core Team, 2021) or SPSS (Version 26.0) statistical packages.

5 RESULTS

5.1 Descriptive Statistics

I will begin the empirical section of my study by presenting descriptive statistics of my sample's structure and of the variables I am primarily interested in.

5.1.1 General Sample Features

As already explained, the total sample I used for this study (n = 8296) consisted of respondents from five countries: Germany (n = 3504), Austria (n = 1196), Switzerland (n = 1197), Italy (n = 1200) and Poland (n = 1199). **Table 1** displays each gender ratio for each country-subsample, as well as basic descriptive statistics for age. **Table 2** shows the distribution of further socio-democratic characteristics (education and income levels) across the individual countries and the entire sample. A brief look at **Table 1** and **Table 2** indicates that the sample is well balanced in terms of the most commonly used socio-demographic variables. Indeed, this is to be expected given the quota sampling applied during the data collection.

Table 1: Basic sample characteristics – age and gender distribution

	n	Gender: Male (n)	Male: percentage of the total sample (%)	Gender: Female (n)	Female: percentage of the total sample (%)	Age: mean in years	Age - SD
Germany	3504	1773	50.60	1731	49.40	44.8	14.6
Austria	1196	590	49.33	606	50.67	43.9	14
Switzerland	1197	612	51.13	585	48.87	43.5	14.7
Italy	1200	595	49.58	605	50.42	46.2	12.9
Poland	1199	592	49.37	607	50.63	43.4	14.2
Total Sample	8296	4162	50.17	4134	49.83	44.5	14.3

Source: Own calculations

Table 2: Basic sociodemographic properties of the sample – Distribution of age, education, and income levels

		Entire sample		Germany		Austria		Switzerland		Italy		Poland	
Variable	Categories	n	%	n	%	n	%	n	%	n	%	n	%
Age	18-29	1645	20	719	21	238	20	289	24	161	13	238	20
	30-39	1644	20	653	19	247	21	249	21	224	19	271	23
	40-49	1576	19	575	16	235	20	224	19	290	24	252	21
	50-59	1926	23	897	26	275	23	238	20	304	25	212	18
	60-69	1505	18	660	19	201	17	197	16	221	18	226	19
	Total:	8296	100	3504	100	1196	100	1197	100	1200	100	1199	100
Education	low	1755	21	1003	29	136	11	192	16	184	15	240	20
	middle	3615	44	1198	34	579	48	463	39	776	65	599	50
	high	2926	35	1303	37	481	40	542	45	240	20	360	30
	Total:	8296	100	3504	100	1196	100	1197	100	1200	100	1199	100
Income	finding it very difficult	435	5	149	4	44	4	44	4	97	8	101	8
	finding it difficult	1661	20	507	14	179	15	141	12	473	39	361	30%
	coping	4167	50	1911	55	648	54	518	43	463	39	627	52
	living comfortably	2033	25	937	27	325	27	494	41	167	14	110	9
	Total:	8296	100	3504	100	1196	100	1197	100	1200	100	1199	100

Source: Own calculations

5.1.2 Protesting

I now move on to examine some basic aspects of protesting in my dataset, followed by a closer overview of the combined protesting indicator, which I will use in most of my analyses.

Firstly, we can look at which protest issues motivated protesting in the early phases of the Covid-19 pandemic. **Table 3** contains the data on issues that motivated protesting for people who at least seldom took part in one of the five types[25] of protesting I focus on. It allows us to observe how both „old“ (e.g., racism, environmental threats) and „new“ (pandemic-related) grievances were present as the motives of protesting. Importantly, the percentages in **Table 3** do not add up to 100, as respondents might have protested for more than one issue.

[25] Signing a petition; posting political content online; participating in online demonstrations; demonstrating in public – in approved or unapproved events.

We see that the respondents mostly protested for climate protection (32.62% of „protesters" participated in climate protection protests). Racism is the second most common protest issue (44.13% of the „protesters" participated in anti-racism protests). „Other" protest issues were the third most frequent motivators of protest (27.45%), followed by protests against freedom-restrictions due to the pandemic (24.4%), and for more state financial aid due to it (24.04%). These results confirm that the pandemic has not radically changed the scope of protest issues. Rather, it introduced new protest grievances, adding them „on top of" the old ones (Press & Carothers, 2020).

Table 3: Shares (non-exclusive) of different issues as motivators of protesting

Have you, since the beginning of the Corona crisis:	No		Yes		Total
	n	%	n	%	n
- protested against racism?	2629	67.38	1273	32.62	3902
- protested for climate protection?	2180	55.87	1722	44.13	3902
- protested against freedom restrictions due to the pandemic?	2950	75.60	952	24.40	3902
- protested for more state economic aid due to the pandemic?	2964	75.96	938	24.04	3902
- protested for other reasons?	2831	72.55	1071	27.45	3902

Source: Own calculations

Next, we can focus more closely on the specific types of political demonstrations, that the respondents participated in. Their frequencies can be observed in **Table 4**.

Table 4: Distribution of frequencies of participating in different types of protest activities

	Never		Seldom		Sometimes		Often		Very often		**Total**	
	n	%	n	%	n	%	n	%	n	%	n	%
Petition/Signatures	5487	66.2	1036	12.5	1119	13.5	452	5.5	192	2.3	8286	100.0
Post online	5633	68.0	959	11.6	1072	12.9	421	5.1	202	2.4	8287	100.0
Demonstrations online	6922	83.6	543	6.6	556	6.7	177	2.1	85	1.0	8283	100.0
Public demonstrations	7196	86.8	431	5.2	468	5.6	139	1.7	52	0.6	8286	100.0
Public, non-approved demonstrations	7467	90.3	222	2.7	309	3.7	172	2.1	101	1.2	8271	100.0

Question-wording: How often have you taken part in one of the following activities since the beginning of the pandemic?
Source: Own calculations

As we move horizontally through **Table 4**, from signing a petition (as the least intense form of protesting), towards participating in illegal demonstrations (as the most intense), we observe a

steady increase in the number of respondents who have *never* participated in the given activity. In other words, signing a petition (or participating in collecting signatures) is the most commonly undertaken protest activity, while illegally protesting is the least commonly undertaken activity.

Table 4 also allows us to observe almost universally declining frequencies in every row, as we move from lower towards higher frequencies of participating in distinct protest activities. In other words, most „protesters" participated in individual protest activity (except for illegally protesting) relatively infrequently, rather than often or very often. Interestingly, this is however not the case for those who participated in illegal protests. Uniquely among the types of protest activities presented in **Table 4**, those who illegally protested often (n = 172) or very often (n = 101) outnumber the ones who did so seldomly (n = 222) – perhaps displaying an important characteristic of such protesters (strong commitment to the cause), or its directedness at immediate, unresolved events and problems (e.g., climate-change, Covid-19 crisis[26]).

Table 5: Descriptive statistics – characteristics of protest type indicators

	Min	max	mean	median	SD
Petition/Signatures	1	5	1.65	1	1.05
Post online	1	5	1.62	1	1.04
Demonstrations online	1	5	1.30	1	0.77
Public demonstrations	1	5	1.24	1	0.69
Public, non-approved demonstrations	1	5	1.21	1	0.72

Notes: The variables displayed in the table were obtained by treating the respective categorical variables (ranging from "never" to "very often") as numerical variables, ranging from 1 to 5
Source: Own calculations

Table 5 lets us compare the mean values of participating in different protest activities. The table is built by treating the respective variables as numerical, instead of categorical, so that they range from 1 (corresponding to „never") to 5 („very often"). Results displayed in **Table 5** closely match those in **Table 4** – petition signing is the most common form of protesting (mean = 1.65), while the least common is participating in public, non-approved demonstrations (mean = 1.21).

[26] Indeed, out of the 5 indicators of protest cause available in the SolZiv dataset, those who often or very often took part in non-approved protest activities mostly protested for climate protection, followed by against freedom restrictions due to pandemic. I present this finding in my study's Appendix – **Table 2A**.

Results displayed in **Table 4** and **Table 5** provide empirical support for how I assigned multiplicative factors to indicators of each type of protest activities, to obtain my combined indicator of frequency and intensity of protesting (as described in the „Operationalization" section of this study). I now move on to examining properties of this, combined protesting indicator more closely.

The distribution of its values over the entire sample (n = 8296) can be observed in **Table 6**, as well as the closely related **Table 7**. **Table 6** shows that the distribution is very unequal. The indicator's mean value is as low as 4.78, on a scale that ranges from 0 to 60. Pertaining to symmetricity and „peakedness" of this indicator's distribution, as indicated respectively by its skewness (2.81) and kurtosis (11.22) levels – we can notice that the distribution is highly right-skewed[27] and leptokurtic[28]. In other words, this distribution does not meet the criteria of normality, which might need to be taken into account when interpreting the analyses that contain this indicator.

Table 6: Descriptive statistics - Characteristics of my protesting indicator

	Protesting indicator
min	0.00
max	60.00
mean	4.78
median	0.00
SD	9.70
skewness	2.81
kurtosis	11.22

Source: Own calculations

Table 7 is built by first splitting the continuous protesting variable into 7 categories. The first category is composed of those respondents that have not politically demonstrated at all since the beginning of the pandemic (whose value of the combined protesting indicator equals 0), amounting to 55% percent of the entire sample. The second category consists of those respondents whose scores on the protesting indicator ranged from 1 to 10 (31%). This category captures the individuals with on average low frequency of protesting and low intensity of the undertaken political activities.

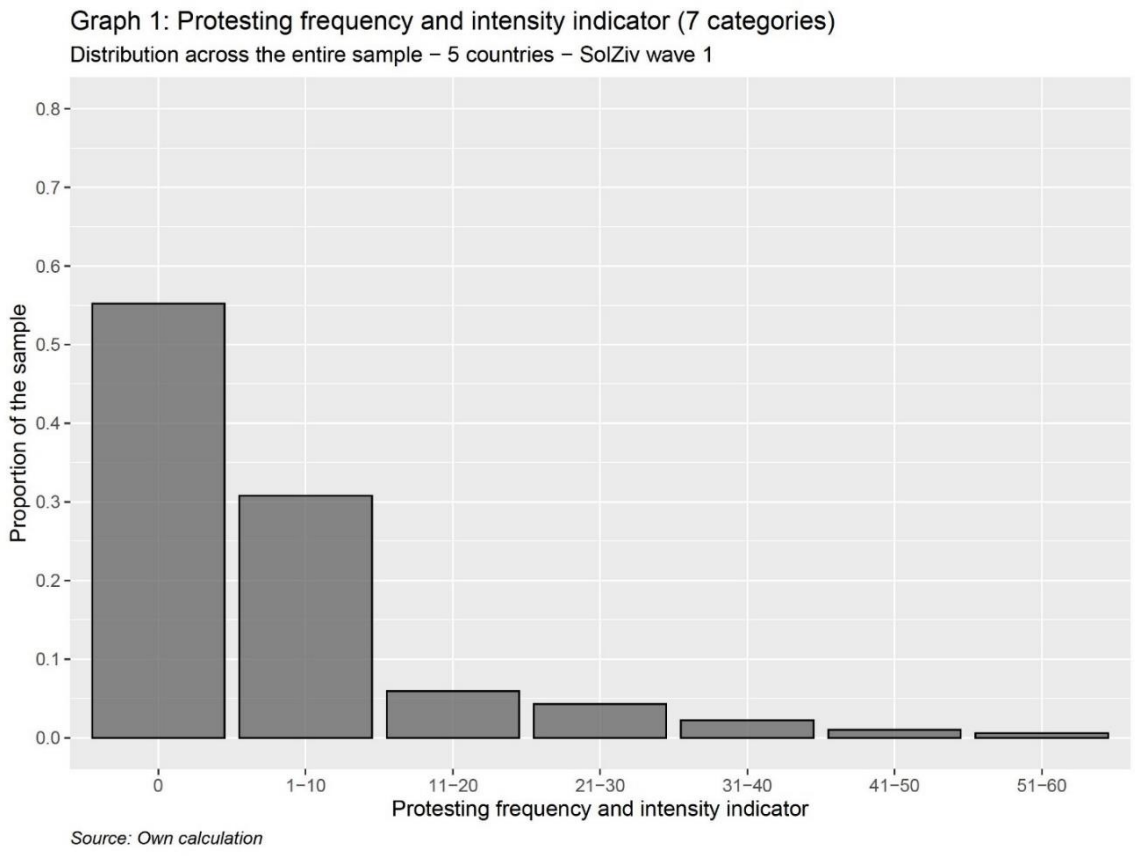
[27] Skewness levels higher than 1 indicate extremely right-skewed distribution.
[28] Kurtosis levels greater than 3 indicate distributions whose peaks are higher than in normal distributions, identifying the so-called leptokurtic distributions.

As we progress towards higher categories, we see that they are composed of fewer and fewer respondents. Finally, the last category (respondents with protesting indicator values 51-60) only includes 1% of the respondents. This is understandable, as to be included in this category, respondents needed to have very often participated in almost every type of protesting surveyed.

Table 7: Frequencies of the categorized protesting indicator

Values of the protesting indicator	n	%
0	4562	55
1-10	2541	31
11-20	490	6
21-30	352	4
31-40	186	2
41-50	82	1
51-60	47	1
Total	8260	100

Source: Own calculations



Graph 1 corresponds to **Table 7** and depicts its results graphically. It shows frequencies of each of the 7 categories we have split the protesting indicator into. It allows us to graphically observe how this variable deviates from a normal distribution – which might be important for interpreting our results.

5.1.3 Positive and Negative Affect

After the initial examination of the protesting-related indicators, we will now do the same for our emotions-related indicators, starting with positive and negative affect. Characteristics of these tho indicator's distribution can be observed in **Table 8**. We see that people on average reported higher rates of positive emotions (mean = 2.58), and somewhat lower rates of negative emotions (2.11) – showing that on the whole, the first phase of the pandemic was not universally negatively emotionally characterized[29]. Positive and negative emotions were rather relatively balanced.

Table 8: Descriptive statistics - Characteristics of PA and NA indices

	Positive Affect	Negative Affect
Min	1	1
Max	5	5
Mean	2.58	2.11
Median	2.6	2.00
SD	0.78	0.79
Skewness	0.16	0.64
Kurtosis	2.88	2.91
Cronbach's alpha	0.89	0.89

Source: Own calculations

Both indexes show excellent internal consistency (Cronbach's alpha for both equals 0.89). With a skewness level of 0.16, approximately indicating symmetrical distribution, and a kurtosis level of

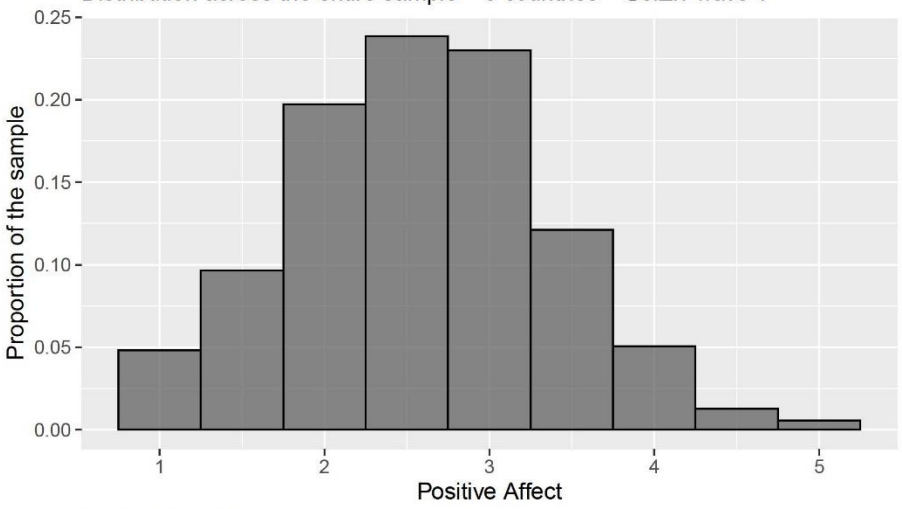
[29] The results I obtained from the second panel wave in Germany might indicate that the emotional experiences of the early phases of the pandemic was not very different from the later phases of the pandemic. This is indicated by comparing mean levels of PA and NA for the German participants who participated in both panel waves (1004). These results can be viewed in the Appendix – **Table 3A**.

2.88, indicating its mesocurtic character, the distribution of the Positive Affect index matches the criteria of normality. This can also be visually observed in **Graph 2**.

The distribution of the Negative Affect index is moderately right-skewed (its skewness level equals 0.64, crossing the symmetricity threshold of 0.5), and mesocurtic (kurtosis equals 2.91). It can be observed visually in **Graph 3**. In summation, we can consider both of these indicators to be approximately normally distributed.

Graph 2: Positive Affect − distribution

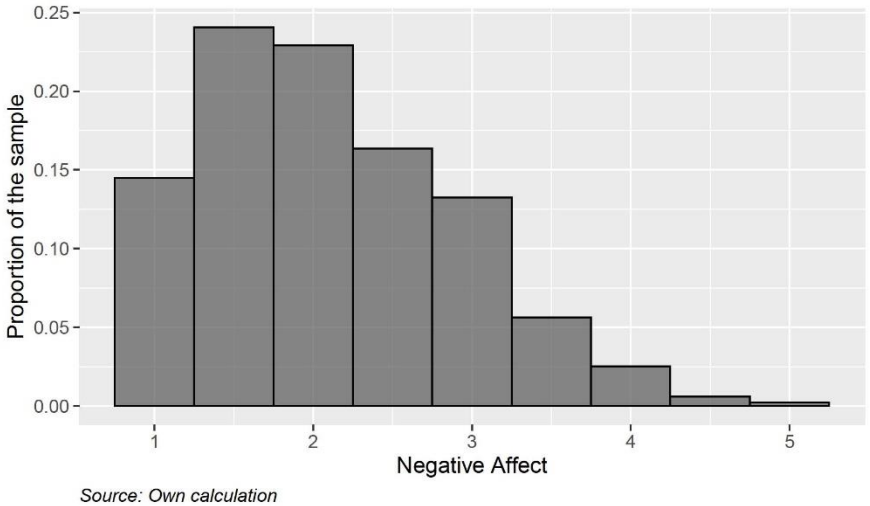
Distribution across the entire sample − 5 countries − SolZiv wave 1



Source: Own calculation

Graph 3: Negative Affect − distribution

Distribution across the entire sample − 5 countries − SolZiv wave 1



Source: Own calculation

5.1.4 Distinct Emotions

We next turn to an overview of the properties of our distinct emotions' indicators. First, the data displayed in **Table 9** shows the distribution of their intensities (ranging from „not at all" to „extremely") across the sample.

Table 9 reveals that guilt was the emotion reported by the fewest respondents (75% of respondents reported feeling „not at all guilty" since the start of the Corona crisis). The most commonly reported was feeling angry (with almost 80% of the respondents reporting experiencing it to some extent). It is also the emotions with the largest share of respondents in the fifth („extremely") category (almost 9%). Once again, the share of respondents feeling extremely guilty (1.16%) is the lowest for any emotion in this category.

Table 9: Distribution of the intensity of feeling distinct emotions across the five-countries sample

	Not at all		A little		Moderately		Quite a bit		Extremely		**Total**	
	n	%	N	%	n	%	n	%	n	%	n	%
Pride	3237	39.03	1838	22.16	2086	25.15	847	10.21	286	3.45	8294	100
Anger	1734	20.91	2437	29.39	1939	23.38	1442	17.39	740	8.92	8292	100
Fear*	1998	24.10	2781	33.54	2029	24.47	1015	12.24	469	5.66	8292	100
Shame	5528	66.67	1344	16.21	937	11.30	334	4.03	148	1.79	8291	100
Guilt	6179	74.52	1006	12.13	760	9.17	251	3.03	96	1.16	8292	100

*Since this indicator was obtained by summarizing PANAS Scared and PANAS Afraid items, which each range from 1 (not at all) to 5 (extremely), the resulting index consisted of 10 instead of 5 levels. To illustrate the principle which I used to adapt it for reporting in this table: to be classified as "a little" afraid, a respondent needed to mark this answer for either one or both PANAS Scared and PANAS Afraid items.
Question-wording: How have you felt since the beginning of the Corona crisis?
Source: Own Calculations

The data displayed in **Table 10** shows formal properties of these variables' distribution when the variables are treated as numeric, instead of as categorical. In accordance with the data from **Table 9**, **Table 10** shows that feeling angry has the comparably highest mean (2.64) among the explored emotions while feeling *guilty* has the lowest mean (1.44).

Table 10: Descriptive statistics – features of the distribution of distinct emotions across the sample

	min	Max	mean	median	SD	Skewness	Kurtosis
Pride	1	5	2.17	2	1.15	0.60	-0.63
Anger	1	5	2.64	2	1.24	0.33	-0.90
Fear	1	5	2.24	2	1.09	0.70	-0.30
Shame	1	5	1.58	1	0.96	1.67	2.09
Guilt	1	5	1.44	1	0.87	2.05	3.63

Notes: The variables displayed in the table were obtained by treating the respective categorical variables (ranging from "Not at all" to "Extremely") as numerical variables, ranging from 1 to 5
***Source**: Own calculations*

Pertaining to the variable's symmetricity, the table reveals that in the cases of feeling *guilty*, and *ashamed*, the indicators are extremely positively (right-) skewed (skewness > 1). We observe slight positive skewness in the cases of feeling *afraid* and *proud* (skewness between 0.5 and 1), and only the distribution of feeling *angry* is nearly symmetrical (skewness between 0 and 0.5). When it comes to the „peakedness" of these distributions, as measured by kurtosis, neither variable comes close to the properties of a normal distribution. Taken together, the data from **Table 10** informs us that the distribution of our variables does not match normal distributions – which we need to have in mind as we approach testing our hypotheses.

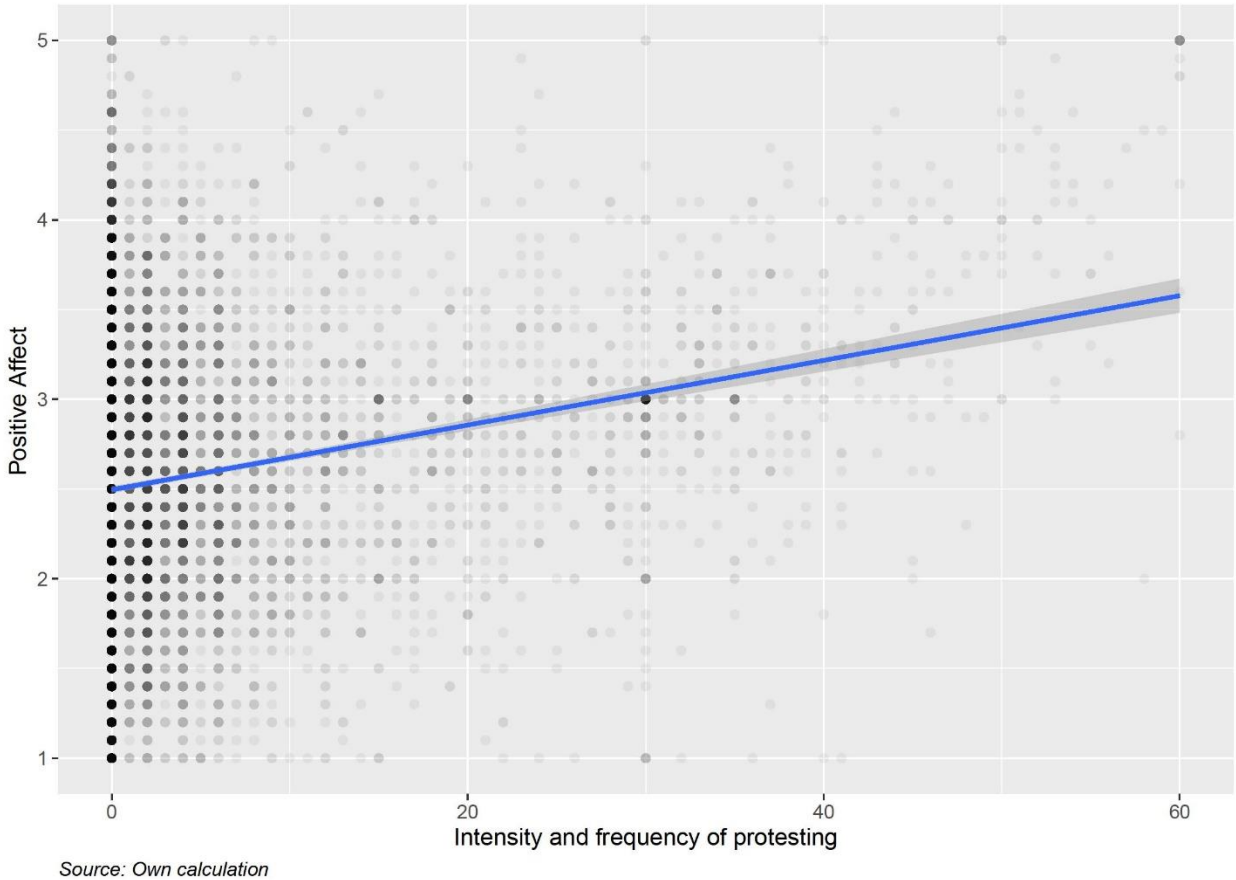
5.2 Hypotheses Testing

In this section of my study, I will present the models used for testing my hypotheses. I will provide tabular overviews of their outputs, and describe their results. I will elaborate on the implications of these results for my hypotheses in the Discussion section of the paper.

5.2.1 PA and NA – main effects

I began testing the hypothesis of a positive effect of both PA and NA on protest participation by visually plotting their respective relationships. **Graph 4** depicts the relationship between Positive Affect and my combined indicator of protesting. A positive correlation is visible in this scatterplot with an added regression line and 95% error bars.

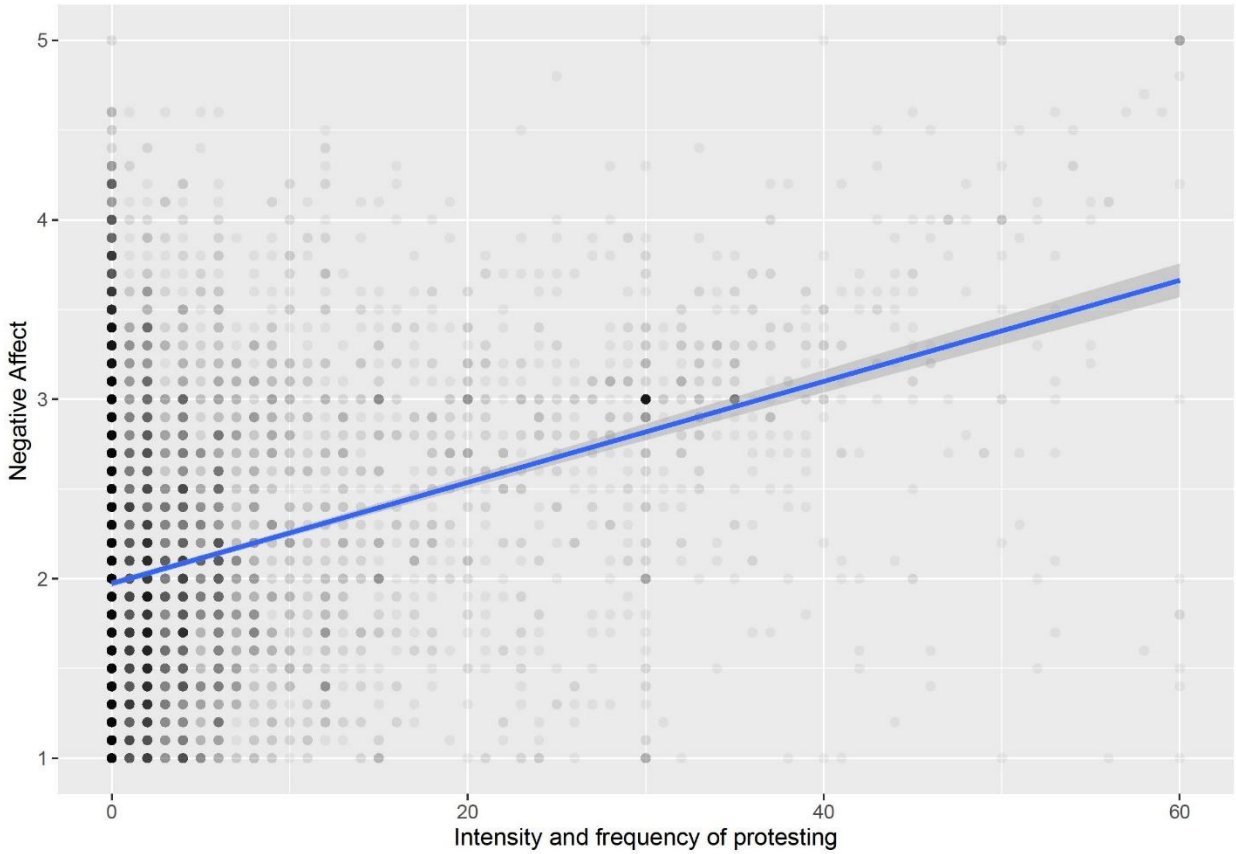
Graph 4: Relationship between PA and the combined protesting indicator



Source: Own calculation

Graph 5 similarly displays a positive relationship between Negative Affect and my protesting indicator. The relationship here appears to be stronger than that of PA and the protesting indicator (the line has a steeper slope).

Graph 5: Relationship between NA and the combined protesting indicator



Source: Own calculation

Next, I built multivariate OLS regression models that include both Positive and Negative Affect as predictors, in a stepwise manner. These models can be observed in **Table 11**.

Model 1 included PA as the predictor of protest participation, as well as age and gender as the most commonly used control variables in social research. The overall model was statistically significant (Adjusted $R^2 = 0.11$; $F_{(3, 8256)} = 332.9$; $p < 0.001$). It was found that PA significantly predicted protest participation ($\beta = 2.87$; $p < 0.001$). The model indicates that for each 1-item

increase in PA, the value of the combined protesting indicator is predicted to increase by a substantial amount of 2.87 – given that all other factors stay the same. In other words, as values of PA increase, people tend to protest more often and participate in more intense protest activities.

Model 2 included NA as the predictor of protest participation, as well as age and gender. The overall model was statistically significant (Adjusted $R^2 = 0.16$; $F_{(3, 8256)} = 513.1$; $p < 0.001$). It was found that NA significantly predicted protest participation ($\beta = 4.03$; $p < 0.001$). Interestingly, a comparison between Model 1 and Model 2 reveals that the protest-motivating impact of NA ($\beta = 4.03$) is considerably stronger than that of PA ($\beta = 2.87$).

When added together in **Model 3** (Adjusted $R^2 = 0.20$; $F_{(4, 8255)} = 507.2$; $p < 0.001$), both PA ($\beta = 2.53$; $p < 0.001$) and NA ($\beta = 3.80$; $p < 0.001$) maintain their significance as predictors of protesting. Importantly, Model 3 explains almost 20% of the total variance in our protest participation indicator[30]. We see that the impact of both PA and NA dropped when both predictors were included in the same model, compared to when they were included individually. This provides some support for our hypothesized moderation effect, which we shall test next.

Table 11: OLS regressions - Positive and Negative Affectivity as predictors of intensity and frequency of protesting

	Model 1				Model 2				Model 3			
	Estimate	Std. Error	t value	Pr(>|t|)	Estimate	Std. Error	t value	Pr(>|t|)	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	5.68	0.51	11.20	**0.00**	2.83	0.49	5.76	**0.00**	-3.10	0.56	-5.51	**0.00**
Gender: Female*	-1.90	0.21	-9.09	**0.00**	-2.81	0.20	-13.82	**0.00**	-2.46	0.20	-12.33	**0.00**
Age (years)	-0.17	0.01	-22.67	**0.00**	-0.12	0.01	-15.99	**0.00**	-0.12	0.01	-17.30	**0.00**
Positive Affectivity	2.87	0.13	21.97	**0.00**					2.53	0.12	20.31	**0.00**
Negative Affectivity					4.03	0.13	31.52	**0.00**	3.80	0.13	30.32	**0.00**
Observations	8260				8260				8260			
R^2/R^2 adjusted	0.108 / 0.108				0.157 / 0.157				0.197 / 0.197			

*Reference category: Male

Notes: Bolded p-values indicate significance below 0.05

Source: Own calculations

[30] These results (Model 3) were closely replicated in the robustness check I ran on the sample consisting of German respondents only (n = 1004), from the second panel wave in Germany. The models I obtain bear no important differences in comparison to the ones obtained on the data from the first wave and from 5 countries. I provided a tabular overview of these results in this study's Appendix – **Table 4A**.

5.2.2 PA and NA – moderation effect

To test the hypothesized moderation effect of PA on NA as a motivator of protest, I next ran another multivariate OLS model, including the indicators of PA and NA, as well as their interaction effect (PA*NA), as predictors of intensity and frequency of protesting. Also included in this model are the indicators of age and gender, as control variables.

The Model, as visible in **Table 12**, was statistically significant (Adjusted $R^2 = 0.26$; $F_{(5, 8254)} = 573.1$; $p < 0.001$). It shows a significant interaction between PA and NA on predicting frequency and intensity of protest participation ($\beta = 3.27$; $p < 0.001$). This time, the share of explained variance (R^2 adjusted = 0.26) is quite extraordinary, especially having in mind the relative simplicity of the model in terms of the number of predictors included.

Table 12: OLS Regression with the interaction effect for Positive Affect and Negative Affect

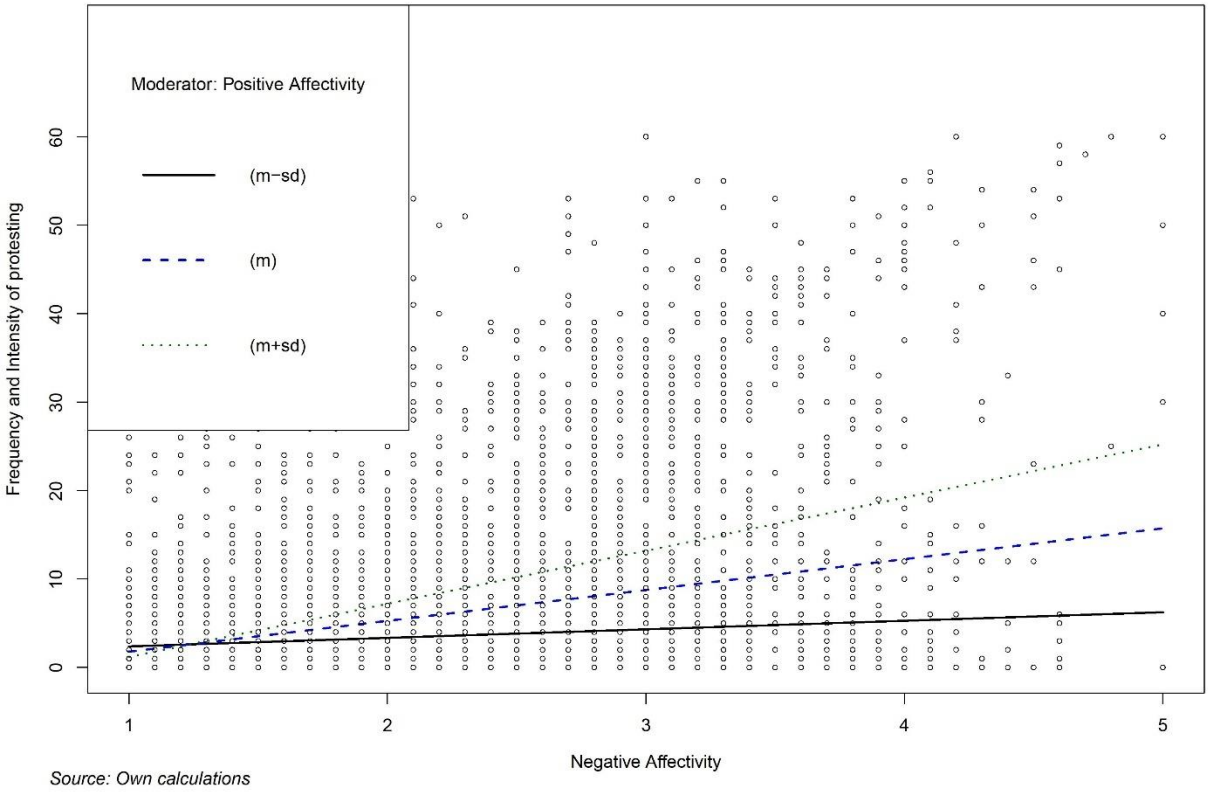
Dependent Variable: Combined Protest Indicator				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	13.73	0.84	16.26	**0.000**
Gender - Female*	-2.02	0.19	-10.52	**0.000**
Age (years)	-0.11	0.01	-16.46	**0.000**
Positive Affect	-4.04	0.28	-14.41	**0.000**
Negative Affect	-4.96	0.36	-13.81	**0.000**
Pa:NA	3.27	0.13	25.92	**0.000**
Observations	8260			
R^2/R^2 adjusted	0.258 / 0.257			

*Reference category: Male
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

Graph 6 can provide us visual insight into the moderating impact of PA on NA (intensity of NA is displayed on the X-axis) as a predictor of frequency and intensity of protesting (represented on the Y-axis). **The black line** shows how the predicted values of the protesting indicator change with changes in NA, for individuals who reported lower than average levels PA (precisely 1 standard deviance lower than the mean value). The line is relatively flat – indicating only a small increase of the protesting indicator as NA increases. **The dashed line** shows changes in the predicted values of the protesting indicator at different values of NA, for individuals experiencing

an average intensity of PA. **The dotted line** shows the same changes for individuals experiencing (exactly 1 standard deviation) higher than average values of PA. The difference in slopes of these three lines shows that Positive Affect does indeed moderate the impact of Negative Affect on intensity and frequency of protest participation[31].

Graph 6: Moderating effect of Positive Affectivity on Negative Affectivity as predictor of the combined indicator of protesting



Source: Own calculations

Put simply, **Graph 6** allows us to observe that under the circumstances of low PA, increases in NA lead only to slight increases in the combined indicator of protesting. Only when the respondents' levels of PA reach the mean level and surpass it, we observe that increases in NA lead to significant increases in protest participation.

[31] These results were once again very closely replicated in the robustness check I ran on the sample consisting of German respondents only (n = 1004), from the second panel wave. The models I obtain bear no important differences in comparison to the ones obtained on the data from the first wave and from 5 countries. I provide a tabular overview of these results in this study's Appendix – **Table 5A**.

5.2.3 Distinct emotions – main effects

To test how the respondents' distinct emotions were linked with their protest participation, I included them into a multiple OLS model, which also contained indicators of gender and age, as control variables. As visible in **Table 13**, the overall model was statistically significant (Adjusted $R^2 = 0.26$; $F_{(7, 8247)} = 420.3$; $p < 0.001$). Feeling *proud* ($\beta = 1.05$; $p < 0.001$), *guilty* ($\beta = 3.26$; $p < 0.001$) and *ashamed* ($\beta = 1.61$; $p < 0.001$) had strong, significant effects on my combined indicator of protesting intensity and frequency. Interestingly, the effect size was the highest for feeling guilty. Feeling *upset* ($\beta = 0.43$; $p < 0.001$) and *afraid* ($\beta = 0.27$; $p < 0.012$) also had significant positive effects, although they were somewhat weaker than those of other emotions[32].

Table 13: OLS Regression with distinct emotions as predictors

Dependent Variable: Combined Protest Indicator				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-2.02	0.49	-4.12	**0.000**
Age (years)	-0.08	0.01	-11.54	**0.000**
Gender: Female*	-1.82	0.19	-9.43	**0.000**
Pride	1.05	0.08	12.74	**0.000**
Upset	0.43	0.09	4.87	**0.000**
Fear	0.27	0.11	2.51	**0.012**
Guilt	3.26	0.13	25.05	**0.000**
Shame	1.61	0.12	13.54	**0.000**
Observations	8250			
R^2/R^2 adjusted	0.263 / 0.262			

*Reference category: Male
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

[32] Yet again I was able to closely replicate this model in the robustness check I ran on the sample consisting of German respondents only (n = 1004), from the second panel wave. There is however one noticeable difference – fear loses its significant effect on protesting. I provide a tabular overview of these results in this study's Appendix – **Table 6A**, and I will comment them in more detail in the Discussion section.

5.2.4 Distinct emotions – moderation effects

To test whether pride influences the relationship between shame and protesting, as well as whether anger influences the relationship between fear and protesting, I again ran a multivariate OLS model, including the transformed indicators of distinct emotions, as well as the interaction effects[33] of feeling proud and ashamed, as well as angry and afraid.

As visible in **Table 14**, the overall model was statistically significant (Adjusted $R^2 = 0.29$; $F_{(9, 8240)} = 371.7$; $p < 0.001$). It shows a significant interaction between feeling *proud* and *ashamed* ($\beta = 1.33$; $p < 0.001$). The interaction of feeling *angry* and *afraid* is however not statistically significant ($\beta = -0.02$; $p = 0.803$)[34].

Table 14: OLS Regression with distinct emotions' interaction effects

Dependent Variable: Combined Protest Indicator				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	3.01	0.69	4.39	**0.000**
Age (years)	-0.08	0.01	-11.74	**0.000**
Gender - Female*	-1.70	0.19	-8.99	**0.000**
Pride	-1.02	0.14	-7.04	**0.000**
Anger	0.48	0.16	2.95	**0.003**
Fear	0.24	0.23	1.06	0.289
Guilt	2.84	0.13	21.81	**0.000**
Shame	-1.41	0.21	-6.70	**0.000**
Pride:Shame	1.33	0.08	17.25	**0.000**
Anger:Fear	-0.02	0.06	-0.25	0.803
Observations	8250			
R^2/R^2 adjusted	0.289 / 0.288			

*Reference category: Male
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

[33] In the form: variable1*variable2
[34] I tested the same model on the Wave 2 SolZiv Panel data. The results are presented in Appendix: **Table 7A**. They contain an important difference in comparison with the model presented above, in **Table 14**. While pride*shame effect remains significant and positive, anger*fear interaction changes – it becomes negative and statistically significant ($\beta = -0.52$; $p = 0.012$). I will comment on this more in the Discussion section of the paper.

The model explains almost a third of the variance in my protesting variable, however, we need to keep in mind that the increase in explained variation in comparison to the previous model is partly due to introducing additional predictors in the model.

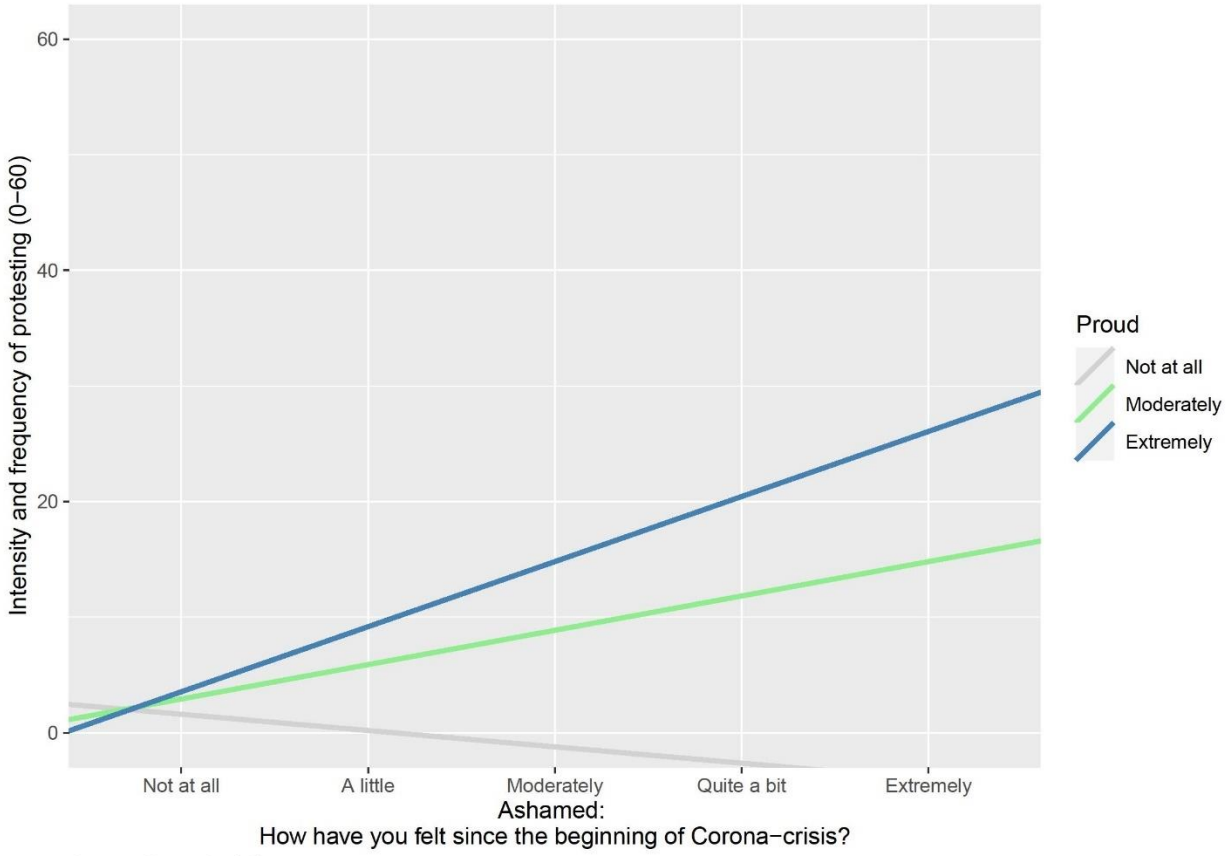
We can attempt to gain a better understanding of the significant interaction effect of pride and shame through its visual representation.

Graph 7 shows how the impact of shame (displayed on the X-axis) as a predictor of frequency and intensity of protesting (represented on the Y-axis) is moderated by feeling proud. **The gray line** shows how the predicted values of the protesting indicator change with changes in shame, for individuals who reported feeling not at all proud since the beginning of the Covid-19 pandemic. The line is has a negative slope, so that predicted values of the protesting indicator for individuals who felt extremely ashamed, but not at all proud, are negative – which is of course theoretically impossible. This indicates that increases in shame among those who did not at all feel proud are not predicted to lead to any increases in protesting. **The green line** shows the same predicted changes, for individuals who reported feeling „moderately“ proud. The line has a positive slope, indicating that, for those who felt moderately proud, values of protesting are predicted to increase as the shame increases.

The blue line shows the same changes for individuals who reported feeling „extremely“ proud since the start of the pandemic. The line's slope is positive and steeper than in the last discussed case. The difference in slopes of these three lines shows that feeling proud does indeed strongly ($\beta = 1.33$, $p < 0.001$) moderate the impact of shame on the intensity and frequency of protest participation.

Put simply, **Graph 7** allows us to observe that under the circumstances of low pride, increases in shame do not lead to an increase in the values of the combined indicator of protesting. Only when the respondents' levels of pride reach the mean level and surpass it, we observe that increases in shame lead to significant increases in protest participation.

Graph 7: Impact of feeling ashamed on protesting, as moderated by feeling proud



Source: Own calculations

5.3 Exploratory Analyses

As announced, the remaining part of my empirical analyses will be exploratory, rather than based on hypotheses-testing. Below, I will first present the findings I obtained by using Exploratory Factor Analysis to uncover whether the underlying structure of the 20 PANAS items differs for the people who have participated in protests, as compared with those who have not. Then, I will present my Latent Class Analysis findings, as applied to uncover latent groupings of types of protest participation

5.3.1 Exploratory Factor Analysis

Before I present my EFA findings, it is important to point out that EFA is necessarily a "complex, iterative and subjective process" (Cabrera-Nguyen, 2010). I shall therefore provide a detailed account of the steps I have taken and the decisions I have made while applying this analysis. For performing this analysis, I am closely following a very instructive and well-documented series of videos by Lee (2021), and referring to the articles cited there.

To compare underlying emotional structures of people who (at least very rarely) took part in at least one type of protest with those of people who have not protested at all, I split the entire sample into two subsamples. Preconditions for a successful EFA include ensuring that the sample size is sufficient for this type of analysis (Cabrera-Nguyen, 2010). Sizes of both the subsample of "protesters" (n = 3698) and the subsample of "non-protesters" (n = 4562) are sufficient for performing EFA (both meet the criterion of at least 10:1 subject to item ratio, as suggested by: Cabrera-Nguyen, 2010).

The next step to a successful EFA includes identifying outliers. I have done this by first calculating Mahalanobis distances[35] for 20 PANAS items, for each of the respondents in both samples. I then calculated the probability of Mahalanobis distances falling within a chi-square distribution with

[35] "Mahalanobis distance (D^2) is a generalized distance measure that accounts for the correlations among variables in a way that weights each variable equally" (Hair et al., 2019, p. 207).

parameters D^2/df (df = 20). Cases with p-values less than 0.001 can be considered to be multivariate outliers (Hair et al., 1998). I excluded such cases from both samples (163 cases from the "protesters" sample, and 239 from the "non-protesters" sample) from the further analysis (sample size after performing the listwise deletion: 3535 "protesters" and 4323 "non-protesters").

The further step was to test the normality of PANAS items' distribution. Shapiro-Wilk and Kolmogorov-Smirnov Test for normality confirmed that the items in both samples are not normally distributed (as indicated by the p-values, which were less than 0.05). Accordingly, I have chosen to use the Principal Axis Factoring (PAF) method for extracting factors, since, unlike other commonly used methods, it makes no strict distributional assumptions (Cudeck, 2000).

Since I had yet to determine the exact number of factors to be retained, I first extracted factors based on Eigenvalues (Eigenvalue > 1). I then obtained the KMO Measure of sampling adequacy, and ran Bartlett's Test of Sphericity, to determine the suitability of my data for EFA (following recommendations of: Lee, 2020). KMO values greater than 0.7 are usually desirable (Lloret et al., 2017). My obtained KMO for the "protestors" sample was 0.912, and 0.915 for the "non-protestors" sample. The results of Bartlett's Test of Sphericity also confirmed the suitability of my data for EFA: the obtained p-values were significant – below the level of 0.05 – for both samples.

Having confirmed that my analysis so far was adequate, I went on to determine the exact number of factors to extract (following: Lee, 2020). Both commonly used criteria for determining it, the Kaiser criterion[36] and observing the Scree plot[37], agreed that three is the number of factors that should be extracted. Since I knew that my items – 20 PANAS scale items – were correlated[38], I could not assume that there would be no correlation between my factors, and I accordingly decided to use the oblique rotation method (Promax) for extracting factors in both samples.

[36] According to this criterion, only the factors with Eigenvalue larger than 1 should be kept (Kaiser, 1960).
[37] … and maintaining the factors which precede the inflection point on the line displaying the relationship between the number of factors to be extracted and Eigenvalue (Cattell, 1966).
[38] See: Appendix, **Table 8A**.

For protesters, I suppressed all coefficients below 0.6, to increase the interpretability of my findings.

Table 15: Pattern Matrix[a] - groupings of PANAS items for protesters

Construct	Item: How do you feel during corona?	Factor		
		C1	C2	C3
Construct 1: Fear, stress and negative emotional agitation	Distressed	**0.755**	0.139	-0.152
	Upset	**0.661**	0.145	-0.102
	Scared	**0.759**	0.098	-0.023
	Irritable	**0.663**	-0.020	0.097
	Nervous	**0.773**	0.052	0.013
	Jittery	**0.710**	-0.086	0.155
	Afraid	**0.790**	0.051	-0.010
Construct 2: Action readiness and motivation to take action	Interested	0.107	**0.671**	-0.026
	Alert	0.109	**0.704**	0.046
	Determined	0.026	**0.724**	0.103
	Attentive	0.211	**0.814**	-0.179
Construct 3: Guilt and optimism	Excited	-0.061	0.209	**0.625**
	Guilty	0.284	-0.260	**0.668**
	Inspired	-0.001	0.280	**0.610**
	Enthusiastic	-0.132	0.215	**0.719**

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 5 iterations.
Source: Own calculations

The emotions of protesters seem to have grouped in three distinct factors. The *first* factor, consisting of only negatively-valenced emotions, can be interpreted as a coexistence of fear, stress, and negative emotional agitation. The *second*, consisting of only positively-valenced emotions, can be interpreted as indicating action-readiness and motivation to take action. Very interestingly, the *third* factor contains both guilt, as a negatively valenced emotion – which, as we have seen proved to be highly related to protesting – and positively valenced, future-oriented emotions (feeling excited, inspired, and enthusiastic). With some additional interpretational liberty, and leaning on studies of emotions and social movements (e.g., Sabucedo & Vilas, 2014), which point to optimism as an important precondition protesting, we might denote these future-oriented positive emotions as optimism. Thus, we would interpret the third obtained factor as coexisting guilt and optimism.

The obtained factors (**Table 15**) are distinct and uncorrelated to a large extent, indicating the model's high discriminant. There are no cross-loadings in the model's Pattern Matrix (**Table 15**), and none of the between-factor correlations exceeds the value of 0.7[39], indicating that the factors do not share significant portions of the total variance in PANAS items. The first factor had close to excellent internal reliability (Cronbach's alpha = 0.89), while the second (Cronbach's alpha = 0.81) and the third factor (Cronbach's alpha = 0.79) had good internal reliability (according to the criterion by: George & Mallery, 2003).

Next, I ran an OLS regression, using these three factors (alongside age and gender as control variables) to predict changes in intensity and frequency of protest participating. The model was statistically significant (Adjusted $R^2 = 0.36$; $F_{(5, 3529)} = 403.6$; $p < 0.001$). As reported in **Table 16**, the models revealed that the *first* ($\beta = 2.13$; $p < 0.001$) and the *third* factor ($\beta = 6.86$; $p < 0.001$) were significant, positive predictors of changes of my combined protesting indicator, while the *second* factor ($\beta = -1.52$; $p < 0.001$) was a negative, significant predictor of changes in protest participation. I will interpret these findings in more depth in the Discussion section of my study.

Table 16: OLS regression with EFA emotional factors as predictors of changes in protest participation

Sample: Respondents who have at least seldom taken part in at least one protest activity (n = 3529)
Dependent Variable: Combined Protest Indicator (1-60)

Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	17.36	0.82	21.05	**0.000**
Gender: Female*	-2.43	0.34	-7.23	**0.000**
in years	-0.08	0.01	-6.24	**0.000**
Factor 1: Fear, stress and negative emotional agitation	2.13	0.18	11.66	**0.000**
Factor 2: Action-readiness and motivation to take action	-1.52	0.21	-7.24	**0.000**
Factor 3: Guilt and optimism	6.86	0.21	31.97	**0.000**
Multiple R-squared:	0.36			
Adjusted R-squared:	0.36			

*Reference category: Male
P-values written in bold font indicate levels below 0.001
Source: Own calculations

[39] See: Appendix, **Table 9A**

Next, I turned to the sample of non-protesters. Here, suppressing factor loadings lower than below 0.5 resulted in the most interpretable results. I deleted one item (PANAS enthusiastic) because of cross-loadings. I ended up with three factors (**Table 17**), but since the third only includes only one item (feeling guilty), I only consider the first two as valid (it is typically recommended to only consider factors with three or more items as valid).

Table 17: Pattern Matrix[a] – groupings of PANAS items for non-protesters

Construct	Item: How do you feel during corona?	Factor		
		C1	C2	C3
Construct 1: Fear, stress and negative emotional agitation	Distressed	**0.735**	0.005	-0.034
	Upset	**0.670**	0.056	0.049
	Scared	**0.756**	0.035	0.008
	Irritable	**0.688**	-0.021	0.191
	Nervous	**0.779**	-0.008	0.096
	Jittery	**0.708**	-0.064	0.216
	Afraid	**0.833**	-0.036	0.006
Construct 2: Positive Affect	Active	-0.127	**0.677**	0.038
	Interested	0.160	**0.703**	-0.130
	Excited	-0.116	**0.575**	0.305
	Strong	-0.137	**0.718**	0.082
	Inspired	-0.022	**0.584**	0.354
	Proud	-0.136	**0.611**	0.308
	Alert	0.073	**0.770**	-0.153
	Determined	0.029	**0.821**	-0.106
	Attentive	0.226	**0.780**	-0.288
Construct 3	Guilty	0.216	-0.044	**0.520**

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.
a. Rotation converged in 5 iterations.
Source: Own calculations

This underlying emotional structure (**Table 17**) differs significantly from the one observed in the sample of non-protestors. The *first* factor contains negatively-valenced emotions – 7 out of 10 negatively-valenced PANAS items. Similar to the protesters' sample, this factor can be interpreted as a coexistence of fear, stress, and negative emotional agitation. Feeling *guilty* (appearing isolated as the only component of the third factor), *ashamed*, and *hostile* are the 3 negatively valenced PANAS items we do not find in the first factor. Interestingly, among the distinct emotions whose

relationship with protesting we have observed, these emotions' links to protest are among the strongest. The *second* factor contains 9 out of 10 positively valenced PANAS items and can be interpreted as essentially being a slightly „truncated" PA indicator. Feeling enthusiastic is the only positive emotion not contained in it, as I omitted it due to high cross-loading between factors 2 and 3. Among the non-protesters, we do not observe a factor that combines positive and negative emotions, unlike in the protesters' sample.

The obtained factors (**Table 17**) are distinct and uncorrelated to a large extent, indicating the model's high discriminant. There are no cross-loadings in the model's Pattern Matrix, and none of the between-factor correlations exceeds the value of 0.7[40], indicating that the factors do not share significant portions of the total variance in PANAS items. Both the first (Cronbach's alpha = 0.90), and the second factor (Cronbach's alpha = 0.89) had excellent or close to excellent internal reliability (according to the criterion by: George & Mallery, 2003).

As before, I will leave a more elaborate interpretation of these findings for the Discussion section of my study.

[40] See: Appendix, **Table 10A**

5.3.2 Latent Class Analysis

As already announced, I applied LCA on my categorical indicators of participating in different types of protest activities (the frequency of signing petitions/collecting signatures, posting political content online, demonstrating online, demonstrating publicly in approved protest actions, participating in unapproved public demonstrations). LCA can be used with categorical data to detect unobserved groupings of cases (Weller et al., 2020) – in this case, to detect whether certain types of protesting and the frequency of undertaking them tend to group in meaningful ways, that might be related to emotions of my respondents.

Despite its growing popularity among researchers, LCA is still relatively underused in social sciences, and its application in research is still evolving (Weller et al., 2020). Since it was first introduced in the 1950s it is being continually revised and advanced (*ibid.*), and there are no standardized recommendations on how to use it in academic research. It is not yet implemented in statistical packages such as SPSS. I will perform it using an R programming language package (a collection of functions developed by its users' community) called *poLCA* (Linzer & Levis, 2011). For the implementation itself, and the following paragraphs, I rely heavily on an online instruction article written by Ohlsen (2015), as well as a set of guidelines for performing and reporting LCA compiled by Weller and colleagues (2020).

As a preliminary step to LCA, I condensed my protesting indicators to include three frequency categories instead of five: „Never“, „Sometimes[41]“, „Often[42]“. It simplifies the structure of the to-be-obtained latent classes and contributes greatly to their interpretability.

The first step in running LCA is determining the number of groups to be formed. This can be done based on theoretical expectations, or in a more data-driven, exploratory manner. I used the second approach, and tested models with different numbers of outcome „latent classes“ (1-7) and compared their BIC (Bayesian information criterion) and CAIC (consistent Akaike information

[41] Obtained by recoding categories “seldom” and “sometimes” into one category.
[42] Obtained by recoding categories “often” and “very often” into one category.

criterion) scores. BIC is seen by most researchers as the best indicator of LCA model fit (Weller et al., 2020, pp. 292-293) – and its lower values indicate better model fit. CAIC is used less often, and its lower values also indicate better model fit (*ibid*.). My model diagnostics can be observed in **Table 18**[43], which shows that both BIC and CAIC point to 5 latent classes being optimal for my analyses.

Upon determining that 5 is the optimal number of latent categories, I re-ran the model which generated this number of classes to obtain probabilities – the likelihoods that each respondent belongs to each of the 5 groups. I then assigned my respondents to one of the five groups, based on the highest probability.

Table 18: Comparison of different LCA models' diagnostics

Model	LL	BIC	CAIC	Likelihood-ratio	Entropy
1 Class	-24703.25	49496.73	49506.73	12945.61	-
2 Class	-19379.59	38948.68	38969.68	2462.68	0.89
3 Class	-18758.23	37805.21	37837.21	1232.32	0.76
4 Class	-18411.22	37210.46	37253.46	563.24	0.76
5 Class	-18298.35	**37083.98**	**37137.98**	336.93	0.51
6 Class	-18257.40	37101.33	37166.33	255.57	0.52
7 Class	-18226.54	37138.87	37214.87	196.56	0.43

Notes: The model became unstable with the 7-class model, at maximum iterations = 3000.
LL = log-likelihood; BIC = Bayesian information criterion; CAIC = consistent Akaike information criterion
Source: Own calculations;
Table is based on: Ohlsen, 2015; Weller et al., 2020.

Table 19 provides us insight into the structure of the generated latent categories. Upon generation, latent classes are unordered, so I reordered them based on their respondents-shares (Ohlsen 2015; Weller et al., 2020), to make the subsequent analyses more interpretable. Ordered classes are presented in **Table 19**. The *first* class (n = 6075 ≈ 73% of the sample) consists of the respondents who have never participated in any type of protest since the beginning of the Corona crisis. The *second* class (n = 1099 ≈ 13% of the sample) consists of those who sometimes took part in less intense protest activities, such as signing petitions/collecting signatures and sharing political

[43] **Table 18** also reports my models' entropy, as recommended by Weller and colleagues (2020, p. 294). Entropy "indicates how accurately the model defines classes". Although values close to 1 are considered ideal (Celeux & Soromenho, 1996 – as cited in: Weller et al., 2020), researchers are typically advised not to rely on the models' entropy levels when choosing their final model (Weller et al., 2020, p. 294).

content online, yet never demonstrated online, nor in public (either in approved or unapproved protest actions). The *third* class (n = 585 ≈ 7% of the sample) consists of those who have moderately often („sometimes“) taken part in each of the five protest types. The *fourth* class (n = 321 ≈ 4% of the sample) consists of those who had often taken part in the least intense protest activities, such as signing petitions/collecting signatures and online protesting, yet demonstrated online less often („sometimes“), and never demonstrated in public (either in approved or unapproved protest actions). Finally, the *fifth* class (n = 216 ≈ 3% of the sample) consists of those who often took part in each of the five protest types.

We can observe that groups tend to form around the 2 criteria: frequency of protesting and intensity of protest activities – how peaceful and energy-consuming they are. We might also say that a distinction between indoor and outdoor activities can be recognized within the generated latent classes (e.g., class 2, class 4).

Table 19: Probability of assigning each respondent to each of the five protesting latent classes

	Class 1, n = 6075			Class 2, n = 1099			Class 3, n = 585			Class 4, n = 321			Class 5, n = 216		
	N	S	O	N	S	O	N	S	O	N	S	O	N	S	O
PE	**0.893**	0.096	0.011	0.237	**0.715**	0.048	0.049	**0.840**	0.110	0.140	0.155	**0.705**	0.007	0.235	**0.758**
PO	**0.896**	0.094	0.010	0.320	**0.588**	0.093	0.055	**0.856**	0.089	0.169	0.273	**0.558**	0.000	0.293	**0.707**
DO	**1.000**	0.000	0.000	**0.739**	0.258	0.002	0.051	**0.885**	0.064	0.420	**0.426**	0.154	0.014	0.297	**0.689**
DL	**0.994**	0.006	0.000	**0.902**	0.098	0.000	0.044	**0.915**	0.041	**0.622**	0.342	0.036	0.000	0.354	**0.646**
DI	**0.996**	0.004	0.000	**0.959**	0.040	0.001	0.181	**0.655**	0.164	**0.857**	0.102	0.041	0.064	0.209	**0.727**

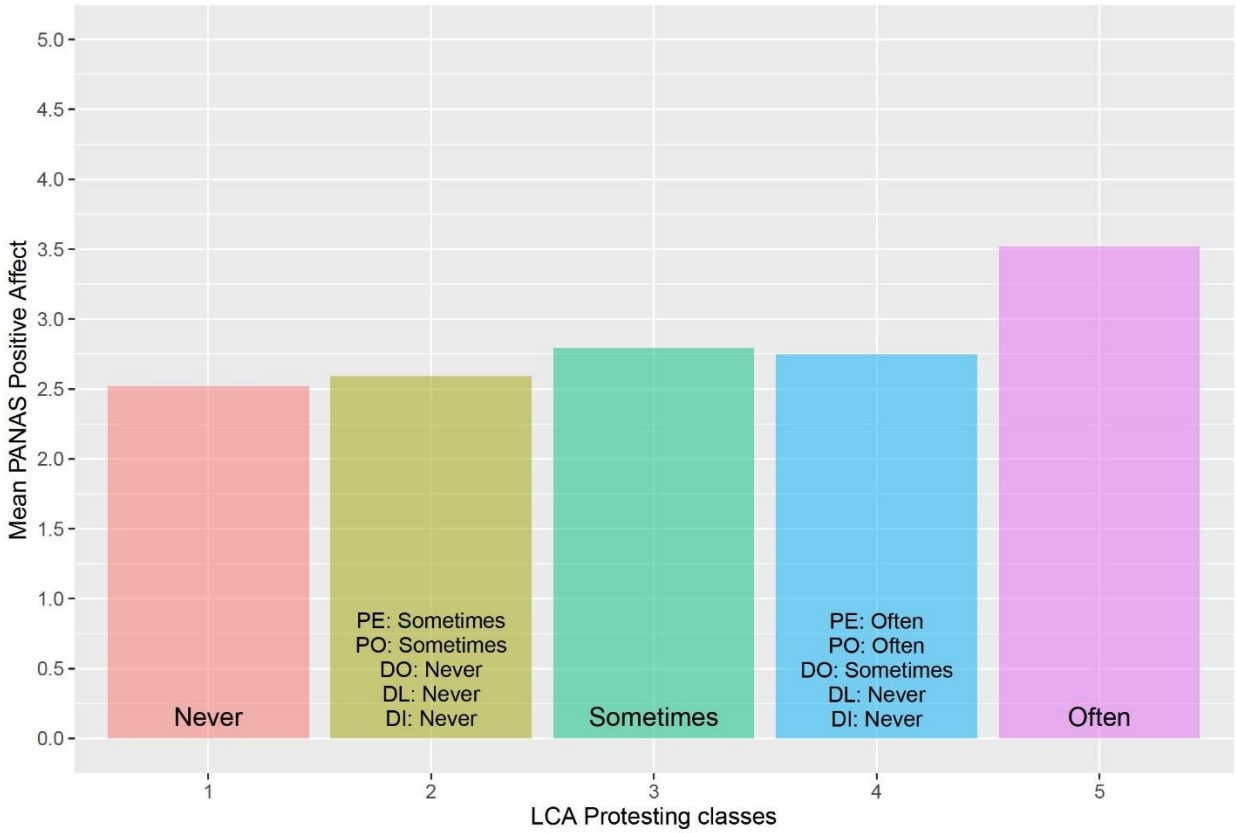
Notes: PE = petition; PO = post online; DO = demonstrating online; DL = demonstrating (legally);
DL = demonstrating illegally; **N** = never; **S** = sometimes; **O** = Often
Bold font in the table indicates the highest probability
Source: Own calculations

Having obtained our latent classes, we can now use them to test whether they are connected to emotions in mutually distinct ways – whether there are any patterns in emotional distributions across the 5 categories of respondents.

We can start our exploration with the distribution of PA and NA across the 5 latent protesting classes, and then move towards distinct emotions.

Graph 8 displays the relationship between Positive Affect and latent protesting classes. Visually, we can observe a gradual increase of mean PA as we move from class 1 to class 3, followed by a very mild decrease between class 3 and class 4 (statistically not significant, as showed by a later ANOVA analysis) followed by a sharp increase in mean PA for group 5. One-way ANOVA shows a statistically-significant difference in mean rates of feeling proud by the latent classes of protesting ($f_{(4, 8291)} = 107.7$, $p < 0.001$). Post-hoc contrasts test (Tukey HSD) reveals that each group's mean PA is statistically unique, except for groups 3 and 4[44], between which there are no significant differences.

Graph 8: Distribution of PANAS PA across 5 LCA classes



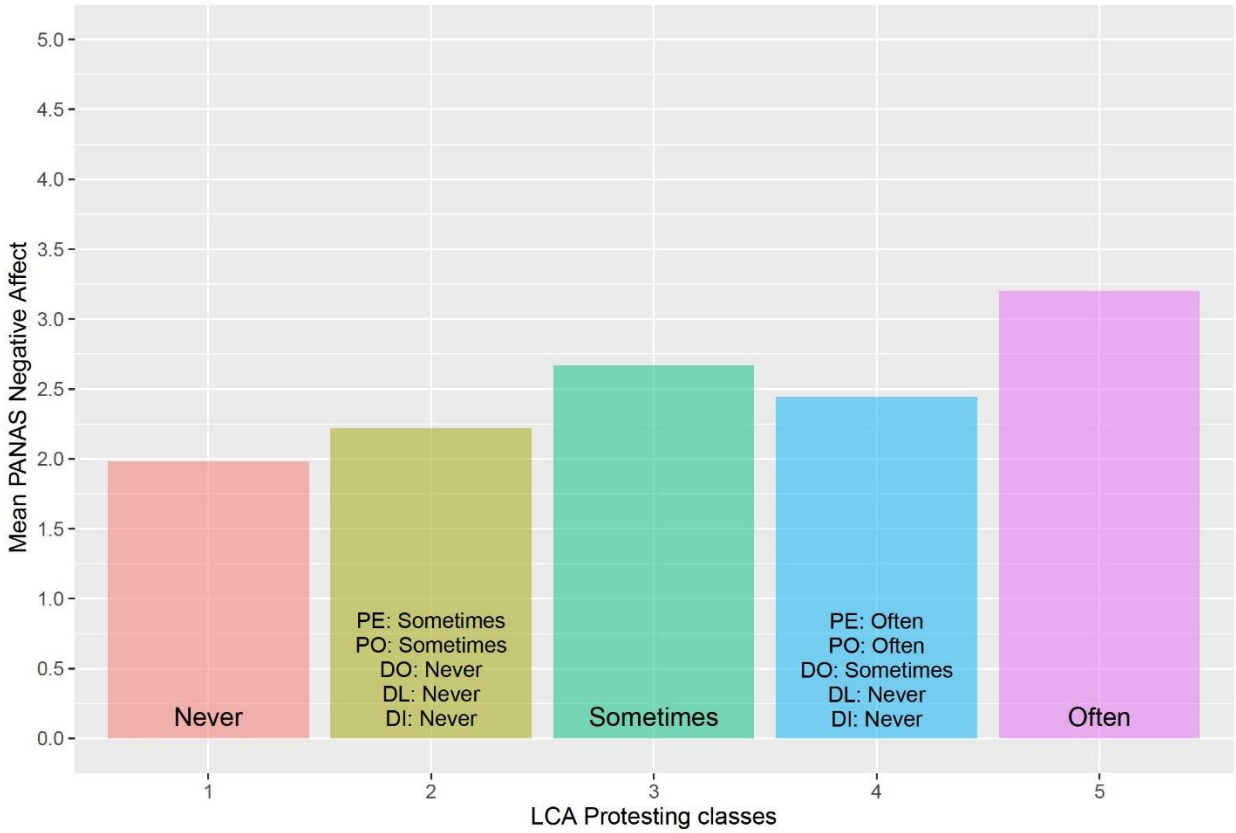
Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

In the same manner, we can explore the relationship between mean negative affect and 5 protesting latent classes. **Graph 9** allows observing a very similar distribution of mean NA across 5 latent

[44] For higher readability, I put these the results which prove this in Appendix: **Table 11A** and **Table 12A**.

classes. Average NA gradually increases as we move from class 1 to class 3, then mildly declines for class 4, followed by a sharp increase for class 5. Again, one-way ANOVA ($f_{(4, 8291)} = 265.7$, $p < 0.001$) shows us there indeed are significant differences in NA among the latent classes. Post-hoc contrasts test (Tukey HSD) reveals that each group's mean NA is statistically unique[45].

Graph 9: Distribution of PANAS NA across 5 LCA classes



Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

When we move towards distinct emotions, we mostly observe the same pattern of their distribution across the 5 latent classes of protesting, with only minor departures from it. I will now try to summarize this pattern, without going into all the details concerning each of the models. Their respective graphs and post-hoc (Tukey HSD) test outputs are available in the study Appendix[46].

[45] Appendix, **Table 11A** and **Table 13A**.
[46] Appendix: **Graphs 1A– 4A**; **Table 11A** and **Tables 14A – 17A**

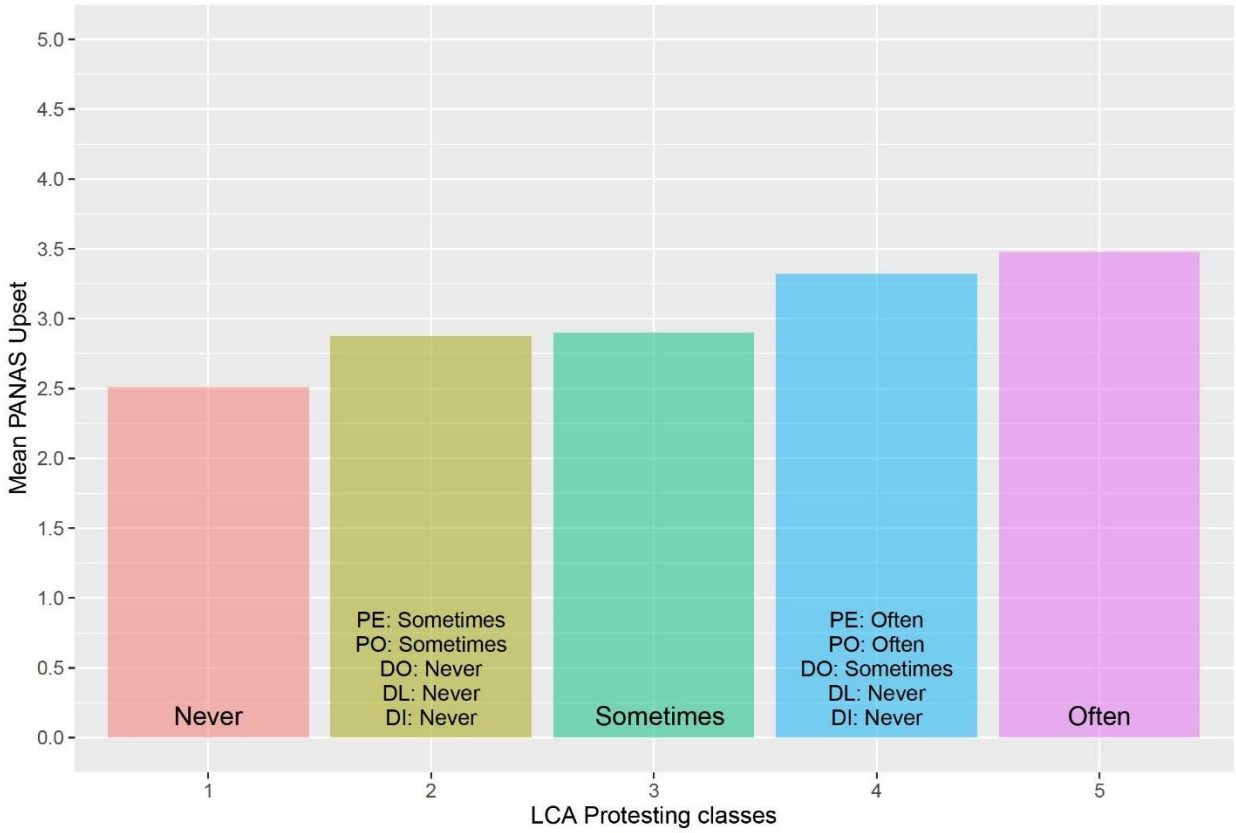
Class 5 (those who „often“ took part in each of the protest types) **always** has the highest mean emotional intensity, followed by the **universally second-highest** mean values for Class 3 (those who „sometimes“ took part in each of the protest types). Between the remaining classes 1, 2, and 4, we observe either a gradual stepwise increase (as in the case of feeling *ashamed*) or no changes at all (as in the case of feeling *proud*). In the cases of feeling *afraid* and *guilty*, we observe a slight increase from class 1 to class 2, followed by no significant differences between groups 2 and 4[47].

The one distinct emotion whose distribution across 5 latent classes differs from the described pattern is *anger* (as operationalized by PANAS *upset* indicator), so I kept the visual portrayal of this relationship graph available within the main text (**Graph 10**, below). It is the only distribution where Class 5 is not singled out with the highest mean levels of the given emotion, but both classes 4 and 5 (between which there are no significant differences in means) rather share the highest level (as can be observed in **Graph 10**, but also **Table 11A** and **Table 18A** in the Appendix). Class 3 mean level comes below this level and is not statistically different from Class 2. Class 1 has the lowest mean level of anger. More simply put, we observe increases from Class 1, to „joined“ classes 2 and 3, and finally to „joined“ classes 4 and 5.

I will interpret these findings, as well as all the previous ones from the rest of the „Results“ section within the next, „Discussion“ section of my study.

[47] This overview is based on the documentation available in this study’s Appendix: **Graphs 1A– 4A**; **Table 11A** and **Tables 14A – 17A**

Graph 10: Distribution of PANAS Upset across 5 LCA classes



Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

6 DISCUSSION

I will structure this study's discussion section in the following manner: I will start by elaborating the results of my hypotheses tests, and interpreting them more closely. I will outline what their implications for each of the hypotheses are, starting with hypotheses related to Positive and Negative Affect, followed by distinct-emotions hypotheses. I will then offer some initial interpretations for the results of my exploratory analyses (EFA and LCA). Finally, I will outline the main limitations as well as contributions of my study. I will end this section by commenting on the directions that could be undertaken by similar future research.

6.1 The state of PA and NA hypotheses

Firstly, I hypothesized that both Positive (**H_1**) and Negative Affect (**H_2**) will positively predict protest participation. Drawing back on the data displayed in **Graph 4** and **Graph 5**, as well as the OLS regression results reported in **Table 11**, I can conclude that both hypotheses were supported by my results. More precisely, focusing on **Model 3** from **Table 11** (Adjusted $R^2 = 0.20$; $F_{(4, 8255)} = 507.2$; $p < 0.001$), we observed how both PA ($\beta = 2.53$; $p < 0.001$) and NA ($\beta = 3.80$; $p < 0.001$) acted as significant, positive predictors of my combined protesting indicator, explaining almost 20% of the total variance in our protest participation indicator (together with age and gender as control variables), and supporting **H_1** and **H_2**.

Secondly and relatedly, I hypothesized that Positive Affect will moderate the impact of Negative Affect on protesting (**H_3**). Drawing back on the data displayed in **Table 12** and **Graph 6**, I can conclude that this moderation hypothesis was supported by my results. More precisely, my OLS regression model with PA*NA interaction (Adjusted R2 = 0.26; $F_{(5, 8254)} = 573.1$; $p < 0.001$), showed a significant interaction between PA and NA on frequency and intensity of protest participation ($\beta = 3.27$; $p < 0.001$), as reported in **Table 12**. In other words, **H_3** is also supported by my results.

As a sidenote, statistically speaking, moderation testing and interaction testing rely upon the same procedure, so that data in **Table 12** could be used as support not just for the moderating effect of PA on NA as a predictor of protesting, but also for a reversed moderating effect, or a mutual interaction effect of PA and NA as predictors of protesting. I have, however, kept to the one-sided moderation interpretation of my results (as visualized in **Graph 6)**, with the effects of NA as – assumedly less universally mobilizing emotional experience – depending upon underlying levels of PA. In the light of my results that show that NA has a stronger main effect on protest participation, future research should re-examine the exact mechanisms through which PA and NA exert combined effects on motivating protest participation.

Importantly, as I have already mentioned, and as documented in Appendix (**Table 4A** & **Table 5A**), these findings were almost exactly replicated and thus fully supported by my robustness checks, conducted on the sample from the second SolZiv-panel-wave, in Germany.

Taken together, hypotheses 1-3 show us that both negative and positive emotions seem to play a vital role in motivating and maintaining protest participation. Although negative emotions (NA) do exhibit a stronger impact on protesting (**Table 11**, Model 3), positive emotions (PA) must not be ignored – as they do not only impact protesting on their own but also as moderators of the impact of negative emotions. To illustrate this finding's relevance – it seems like the full protest-mobilizing power of negative emotions is only reached when high levels of positive emotions are also present. Without the empowering, mobilizing, encouraging, and optimism-increasing impact of positive emotions, negative emotions (even though they might be the most direct reflections of protest-causing grievances) do not exhibit their full protest-mobilizing potentials and seem to rather be connected with relatively infrequent and less intense protest types[48].

I next turn to elaborate on the status of my distinct emotions hypotheses.

[48] This can be observer in **Graph 6**, where the participants with low levels of PA only reached the scores of close to 10 on the combined indicator of protesting frequency and intensity, as their NA increased. Those with both high PA and NA scores, on the other hand, were predicted to reach more than twice as high scores of the combined protesting indicator, indicating twice as high protest frequency and intensity.

6.2 The state of distinct emotions hypotheses

I will briefly remind the reader of my distinct-emotions hypotheses. They can roughly be divided into two groups, depending on whether they are concerned with so-called main effects, or moderation effects of emotions on protesting. Regarding the **main effects**, I hypothesized that pride, anger, shame, and guilt will be positively related to protest participation (**H_4**, **H_5**, **H_8**, **H_{10}**). I also hypothesized that fear will be negatively related to protest participation (**H_6**). I had also posed two **moderation-effect** hypotheses: that the impact of fear on protesting will be positively moderated by feeling angry (**H_7**) and that the impact of shame on protesting will be positively moderated by feeling proud (**H_9**).

I tested the main effect hypotheses by putting all of my distinct-emotions variables as predictors into an OLS regression model, with age (in years) and gender as control variables, and my protesting indicator as the dependent variable (**Table 13)**. For testing my moderation-effect hypotheses, I added interaction effects (pride*shame and anger*fear) as predictors to the previously described model (**Table 14**).

To explain what my results imply for the state of these hypotheses, I will firstly focus on hypotheses that gained clear support from my empirical results (positive main effect of guilt, shame, and pride on protesting, as well as positive moderation effect of pride on shame). Then, I will comment on the remaining hypotheses which either gained empirical support but require additional elaboration (main effect of anger) or failed to obtain empirical support (negative effect of fear on protesting, positive moderation effect of anger on fear).

Starting with the hypotheses which gained empirical support, I can say that even after controlling for the impact of other emotions, the effects of *guilt* ($\beta = 3.26$; $p < 0.001$), *shame* ($\beta = 1.61$; $p < 0.001$), and *pride* ($\beta = 1.05$; $p < 0.001$), remained positive and statistically significant predictors of protesting (**Table 13**). In other words, my hypotheses **H_{10}**, **H_8**, and **H_4** are supported by the empirical results. However, I found some aspects of these results unexpected.

Interestingly and contrary to my implicit expectations, feeling ashamed (β = 1.61) had an even stronger effect on protesting than feeling proud (β = 1.05). Also, I did not expect that the impact of feeling guilty would be as strong – the strongest among all the emotions I have tested (β = 3.26). What could explain this?

The somewhat surprising strength of guilt's and shame's effects could be explained in several ways that are linked with the unique settings of my study – the Covid-19 pandemic. It could be that – perhaps due to social distancing restrictions, some protesters experienced their collective action participation as a violation of internalized public health norms. Feelings of guilt and shame, in other words, might have come *after* the acts of public protesting, rather than *predating* them. Some support for this interpretation can be when observing how feelings of guilt and shame vary across the latent protesting classes (Appendix: **Graph 3A** and **Graph 4A**). In both cases, we notice a significant increase in mean feelings of guilt and shame as we go from latent class 2 (respondents who sometimes took part in signing petitions and posting political content online, but **never** took part in public protests) to latent class 3 (respondents who **sometimes** took part in all five types of protest). This evidence seems probable, although it is not conclusive – as the same increase between groups 2 and 3 was evident for other emotions as well (e.g., PA and NA; pride and fear), and since the data does not allow to conclusively establish whether it was the addition of public types of protest or an increased total frequency of protesting that drove the difference between latent classes 2 and 3.

Another related possibility is that certain protesters, or their relevant others, might have perceived participating in public protests as an increased risk for one to get infected with the virus and bring others at risk (e.g., members of their household). Those who did have this perception might have felt more guilty or ashamed if they still decided to join public protests. We know that individuals can have different, and sometimes opposing social identities, that can be directly confronted through participation in social movements (see: Klandermans, 2014). The pandemic might have made it more difficult to balance such identities and allegiances in some cases – such as an allegiance to one's family (not risking to spread the virus) as opposed to the social movement they support. Perhaps this resulted in higher rates of negative self-evaluative feelings among those who protested in public. This possibility is unfortunately not directly testable with the SolZiv dataset,

so it is on future research to explore the consequences of confronted identities and allegiances for the potential protester's feelings.

Final Covid-19 related explanation would be that protesting against certain issues (e.g., against pandemic-related restrictions) was linked with stronger feelings of guilt and shame – due to its widespread perceived illegitimacy (e.g., Shure, 2020). With data from the SolZiv study, I have tested several simple models that could support or disprove such a possibility. While feeling *guilty* does not seem to be connected with protesting against Covid-19 related issues, and is rather related to protesting for environmental protection (assumably motivating such protests – see: Appendix: **Table 19A**), feeling *ashamed* does seem to be linked with protesting against pandemic-related freedom restrictions (but not exclusively – it is also linked with protesting for environmental protection and for „other issues" – see: Appendix: **Table 20A**). Emotions of public protesters in conditions when public protesting is largely discouraged, or when they are protesting for unpopular causes, should therefore be further studied.

Lastly, even though some aspects of the pandemic might be called upon to understand the relationship between protesting and guilt and shame – they do not account for all protesters and do not explain the entire scope of this relationship. My theoretical review and my results (**Table 13**; Appendix - **Table 19A** and **Table 20A**, which show that guilt and shame as predictors of protesting for environmental protection) support the idea that these two emotions often do act as *motivators* of protests for different aims, and do not merely arise *after* „inappropriate" acts of protesting in pandemic times. Unfortunately, since the connection of these emotions with protesting was rarely tested while controlling for other emotions, I do not have „baseline" levels of their effects in non-pandemic times with which I could compare the results obtained in this study.

Regarding my first moderation hypothesis, the results also showed that pride moderates the impact of shame on protesting (**Table 14**: $\beta = 1.26$; $p < 0.001$). At low levels of feeling proud, increases in feeling ashamed do not lead to increases in protesting (**Graph 7**). It is only at high levels of feeling proud, that increases in feeling ashamed are predicted to lead to increases in protesting. Thus, I also consider **H_9** to be supported by my empirical results.

Importantly, the obtained significant interaction effect of pride and shame could also be interpreted as shame having moderated the impact of pride on protest participation. Based on my theoretical review, I chose to adhere to the interpretation where pride, as the supposedly, more universally activating emotion, moderates the impact of shame, whose effects then depend on the „underlying" levels of pride. However, as my results show that shame might actually be the stronger motivator of the two (although I can not know for sure whether it was more present as a motivator or a consequence of protesting), future research should attempt to discern the mechanics of the combined impact of pride and shame more closely.

Having discussed the hypotheses which obtained clear support by my results, I now turn to the ones which have not, or for which the results are less simple to interpret.

Firstly, I hypothesized that anger will be positively related to protest participation (**H_5**). As shown in **Table 13**, even after controlling for the impact of other emotions, its effects on protesting did remain positive and statistically significant ($\beta = 0.43$; $p < 0.001$). In other words, H5 is also empirically supported by my results. However, the fact that anger's effect is weaker than that of guilt, pride, and shame is somewhat unexpected, given how prevalent anger is in theoretical and empirical treatises of protesting.

Even more surprisingly, my hypothesized negative effect of fear on protesting (**H_6**) also failed to obtain empirical support. As evident in **Table 13**, fear had a weak, although statistically significant, positive effect on protesting ($\beta = 0.27$; $p < 0.012$). Additionally, as evident in **Table 14**, the hypothesized positive moderation effect of anger on fear as a predictor of protesting (**H_7**) was also not empirically supported. Instead, my results show a negligible in size, negative, and statistically non-significant effect ($\beta = 0.02$; $p = 0.803$).

In order to inspect potential reasons behind such unexpected results (the relatively weak effect of anger on protesting, positive effect of fear, and their non-significant interaction effect), I first suspected that my anger indicator might not have been the most optimal one. As already mentioned in the „Data and Methods" section, the SolZiv survey contained the PANAS scale translated into three languages: German, Italian and Polish. Having obtained my results, and detected the

unexpectedly (comparatively) weak effects of anger on protesting, I inspected the translations more closely and noticed a slight difference between them. More specifically, while German translation (*verärgert*) of the English „upset“ item does closely correspond to anger (making this item suitable to use as an operationalization of anger in German-speaking populations), its Polish (*zmartwiony*) and Italian (*turbato*) translations slightly differ from this meaning, and rather imply feeling “annoyed”. One could expect this difference to be linked with how the indicator performs as a predictor of protesting – *verärgert* seems to capture the protest-motivating anger much more closely, while *zmartwiony/turbato* might rather express a more diffuse and less motivating state of negative emotional arousal. If this guess is true, I should observe differences in the effects of feeling *verärgert* and *zmartwiony/turbato* when I divide the sample into German speakers (Germany, Austria, and Switzerland) and non-German speakers (Italy and Poland).

Indeed, I observe such a difference. **Table 20** compares the effects of the PANAS “upset” indicator across four samples: full 5-country sample, German-speaking sample, non-German-speaking sample, and second panel-wave sample in Germany. The effect remains significant and positive whenever German-speaking respondents are included (*verärgert*), but loses its significance, and turns to negative values in the sample consisting of respondents from Italy and Poland (*turbato/zmartwiony*). This seems to confirm my doubts: differences in translation resulted in two different concepts being put under the name PANAS “upset” indicator. *Verärgert* does indicate protest-motivating anger, while *turbato*/*zmartwiony* rather indicates annoyance/frustration/nervousness which seems not to be protest-mobilizing. This itself seems to be an interesting finding (even if it is unintentional) since both of these concepts imply a state of negative emotional arousal, yet anger also implies attributing blame for the undesirable circumstances on others, while annoyance (arguably) does not. It can be interpreted similarly to Javeline’s 2003 findings that protesting requires clear blame attributions, which distinguished protesters from non-protesters in 1990s Russia. Although the non-protesters were facing the same social injustices (wage arrears), yet could not identify who to blame them for, and whom to direct their anger at.

Table 20: OLS Regression with distinct emotions as predictors of the combined protest indicator, across different samples

	Full Sample			German-speaking sample			Italy and Poland			Wave 2 Germany		
Predictors	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)
(Intercept)	-2.02	0.49	**0.000**	-2.52	0.57	**0.000**	0.20	0.96	0.834	-2.63	1.41	**0.063**
Age (years)	-0.08	0.01	**0.000**	-0.08	0.01	**0.000**	-0.09	0.01	**0.000**	-0.11	0.02	**0.000**
Gender: Female*	-1.82	0.19	**0.000**	-1.80	0.22	**0.000**	-1.78	0.38	**0.000**	-1.90	0.54	**0.000**
Pride	1.05	0.08	**0.000**	1.03	0.10	**0.000**	1.04	0.16	**0.000**	1.11	0.24	**0.000**
Upset	0.43	0.09	**0.000**	0.58	0.10	**0.000**	-0.13	0.22	0.564	0.52	0.24	**0.034**
Fear	0.27	0.11	**0.012**	0.24	0.13	0.061	0.30	0.24	0.208	0.02	0.36	0.953
Guilt	3.26	0.13	**0.000**	3.08	0.15	**0.000**	3.76	0.26	**0.000**	4.55	0.39	**0.000**
Shame	1.61	0.12	**0.000**	1.66	0.14	**0.000**	1.42	0.24	**0.000**	1.75	0.36	**0.000**
Observations	8250			5860			2390			1002		
R^2/R^2 adjusted	0.263 / 0.262			0.266 / 0.265			0.260 / 0.258			0.369 / 0.365		

*Reference category: Male

Note: Bolded p-values indicate significance below 0.05

Source: Own calculations

However, this is not the only interesting observation we can obtain from **Table 20**. While none of the other emotions' effects change significantly, the effect of fear loses its significance as we move through different samples. In the first wave German-speaking sample, its effect is marginally significant ($\beta = 0.24$, $p = 0.061$), while in the Italian-Polish ($\beta = 0.30$, $p = 0.208$) and the second wave German sample ($\beta = 0.02$, $p = 0.953$) fear appears as a non-significant predictor of protesting.

This can be interpreted as an indication that fear, when joined by other emotions, loses its distinct impact on protest participation – since it is largely contained in other emotions such as guilt or shame (where one fears threats to their self- or ingroup-image). Support for this suggestion can be found in the results I report in Appendix – **Table 23A**. The table shows how fear loses its effect as a predictor of protesting when controlled for other distinct emotions. Unlike other emotions, it fully loses the significance of its effect when controlled for all other emotions. This calls for more research on fear as a motivator/de-mobilizer of protesting in real-life situations, where it can be experienced simultaneously with other emotions, which can resemble it and "overtake" its impact on protesting through their more distinct appraisals and action tendencies.

Having determined that differences in translations do impact effects of the PANAS upset indicator across different-language samples, I went on to check if this could also have impacted the hypothesized moderation of anger on fear as a predictor of protest. This, however, does not seem to be the case, as indicated by the results in **Table 20**. Across all the samples included, the

upset*afraid interaction effect stays either non-significant or negative, as in the German Wave 2 sample (β = -0.52, p = 0.012). This indicates that the effects of fear do not at all depend on the "underlying" levels of anger, or at least – that the interaction is not positive as I expected.

Table 21: OLS Regression with distinct emotions' interaction effects, across different samples
Dependent Variable: The combined protesting indicator

	Full Sample			German-speaking sample			Italy and Poland			Wave 2 Germany		
Predictors	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)
(Intercept)	3.01	0.69	**0.000**	3.66	0.79	**0.000**	3.24	1.40	**0.021**	0.68	1.99	0.733
Age (years)	-0.08	0.01	**0.000**	-0.08	0.01	**0.000**	-0.08	0.01	**0.000**	-0.11	0.02	**0.000**
Gender: Female*	-1.70	0.19	**0.000**	-1.58	0.22	**0.000**	-1.80	0.38	**0.000**	-2.01	0.53	**0.000**
Pride	-1.02	0.14	**0.000**	-1.37	0.17	**0.000**	-0.29	0.28	0.304	-1.08	0.40	**0.007**
Upset	0.48	0.16	**0.003**	0.46	0.19	**0.014**	0.05	0.38	0.901	1.35	0.44	**0.002**
Fear	0.24	0.23	0.289	-0.02	0.26	0.930	0.42	0.49	0.383	1.79	0.76	**0.019**
Guilt	2.84	0.13	**0.000**	2.58	0.15	**0.000**	3.52	0.26	**0.000**	3.90	0.39	**0.000**
Shame	-1.41	0.21	**0.000**	-1.69	0.24	**0.000**	-0.79	0.45	0.081	-1.63	0.62	**0.009**
Pride:Shame	1.33	0.08	**0.000**	1.54	0.09	**0.000**	0.87	0.15	**0.000**	1.42	0.21	**0.000**
Upset:Afraid	-0.02	0.06	0.803	0.07	0.08	0.399	-0.06	0.13	0.662	-0.52	0.21	**0.012**
Observations	8250			5860			2390			1002		
R^2/R^2 adjusted:	0.289 / 0.288			0.301 / 0.300			0.270 / 0.267			0.401 / 0.395		

*Reference category: Male
Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Interpreting this unexpected finding without knowing the exact targets of feeling angry/annoyed and afraid is very challenging. Perhaps anger, as typically experienced by my respondents, did not have high mobilizing properties that I would expect some of its types (group-based, other-directed anger) to have – properties that I viewed as necessary for anger to act as a positive moderator of fear. Following this assumption, my further explorations of the SolZiv data showed that the PANAS *hostility* indicator, when used instead of PANAS *upset*, proves to be a more mobilizing contributor to protesting (Appendix, **Table 21A** – as compared with **Table 13**). Also, I found some indications that its interaction with fear (hostility*fear) might be a positive predictor of protesting (Appendix, **Table 22A**). In this light, I suspect that the PANAS *hostile* indicator comes closer to the mobilizing properties of group-based, or other-directed anger – than PANAS *upset* (even in its *verörgert* translation). As such, it might contain "more focused" blame distributions than the PANAS *upset* indicator (even in its *verärgert* version), and a higher potential for forming and strengthening social identities („us" being defined in opposition to the others, whom the hostility is directed at). Both of these features are the properties that I assumed could „balance out" de-mobilizing aspects of fear. However, these exploratory results are far from conclusive, as I observe

a sharp difference between German-speaking and Italian/Polish samples concerning the hostile*afraid interaction (Appendix, **Table 22A**)[49]. Still, I believe that this is the direction future research should take in order to properly examine the hypothesized moderation effect of anger on fear as a predictor of protesting.

In conclusion, my $\mathbf{H_5}$ is supported by the results. Anger was shown to significantly and positively predict protest participation (**Table 13**). Any doubt concerning the impact of differences in translations can be lifted by **Table 20** which showed that feeling *värgert* (as an undoubtedly valid indicator of anger) is a significant, positive predictor of protesting in German-speaking samples.

My $\mathbf{H_6}$ was not supported by the results. Fear does not have a significant negative effect on protesting in any of the models (**Table 13, Table 20**).

Lastly, the data does not support my hypothesis $\mathbf{H_7}$. Feeling angry does not positively moderate the impact of feeling afraid on protesting (**Table 13**; **Table 21**).

[49] One, although very provisional, potential explanation for this would be that these emotions had different typical targets in different countries, which might have been related with different country-impact of the Corona crisis. One could imagine the combined effect of these emotions to vary greatly depending on their targets. For example, fear of climate changes together with hostility towards government officials who ignore them might be protest-mobilizing. On the other hand, fear for health together with hostility towards people violating Covid-19 measures might be de-mobilizing.

6.3 EFA Interpretation

In this section I will briefly elaborate on my EFA findings, mostly referring to **Table 15** and **Table 17**, which respectively contain the factor scores I obtained for 20 PANAS items in the sample of people who at least „seldom“ took part in at least one type of protest (the „protesters“) and the sample of those who had not at all protested since the beginning of the Covid-19 pandemic. I will also refer to **Table 16**, which reports the results of the OLS model which used the factors obtained in the first sample to predict „the protesters'“ changes in the frequencies and intensities of protest participation.

First of all, I should restate that EFA is a subjective and iterative process (Cabrera-Nguyen, 2010). The best a researcher can do is to carefully document and explain all the important decisions they have made which might influence the final appearance of their factors – so that their results can be replicated. This is precisely what I have done.

My results are supported by existing theories from the field of emotions and social movements. Most importantly, the „guilt and optimism“ factor detected in the protesters-sample points (**Table 15**), and its remarkable[50] impact on protesting (**Table 16 -** emotional factors as predictors of protesting: $\beta = 6.86$; $p < 0.001$) can be seen as yet another empirical proof of Jasper's (2011) „moral batteries“ concept – where emotions of different „polarities“ (valences) are suggested to exert a shared impact on protesting intentions. Optimism was suggested by many authors (e.g., Sabucedo & Vilas, 2014) to be an important element in motivating and sustaining protests, and it is interesting to see that my EFA coupled it with the emotion that is seemingly most strongly related to protesting: feeling guilty. This pairing might be interpreted as accepting our responsibility for certain negative events (guilt) but believing that they can be changed for the better through our actions (optimism).

[50] An increase of size 1 of this emotional factor is connected with an increase of almost 7 (6.86) units of our combined protesting indicator (which, in the model reported in **Table 16**, varied from 1 to 60). This predicted change is much more intense than the impact of other two factors included in the model.

Also very interesting and somewhat counter-intuitive finding is that of a negative impact (**Table 16**: $\beta = -1.52$; $p < 0.001$) of the „action-readiness and motivation" factor on protest participation, even though this factor consists only of positively-valenced items. It sheds new light on our finding that PA is positively related to protest participation. It indicates that *not all* the emotional items contained within the 10-item PA indicator have the same, positive link with protesting. In other words, PA seems not protest-motivating in all of its components. Negative effect of the „action-readiness and motivation" indicator, and the very strong positive effect of the „guilt and optimism" indicator on protesting, signal that it is not behavioral, *activating* property of PA that matters the most for protesting, but rather its *appraisal*, *future-oriented* and *optimistic* property. This also changes the way we interpret the finding of PA moderating the impact of NA on protest participation. It does not seem like the most important role played by PA is balancing the de-activating aspect of NA, with its action-oriented behavioral properties, but rather helping potential protestors see the brighter future that their actions might contribute to, despite grievances they are currently facing.

Next, the positive impact of the „fear, stress and negative emotional agitation" factor on protesting (**Table 16**: $\beta = 2.13$; $p < 0.001$) might be indicative of protest-related grievances, and their awareness, which can be protest motivating (Azab & Santoro, 2017).

Finally, we can compare the underlying emotional structure in the protesters and non-protesters samples. In the non-protesters sample (**Table 17**), all positive PANAS items (except for feeling enthusiastic) are grouped within a single factor, which can be termed („truncated") positive affect. Here, we do not observe a tendency of the future-oriented positive emotions to group separately from the ones that capture action readiness and motivation, nor a grouping of any negatively-valenced emotion (e.g., guilt) together with positively-valenced ones. This is yet another indication that certain patterns of a *pairing* of positive and negative emotions predispose individuals towards (higher rates) of protesting (as suggested by: Jasper, 2011). Perhaps it even implies that individuals rarely participate in protests unless these mixed-emotional preconditions are met. Future research should explore this more closely.

Next, I will elaborate on the results of Latent Class Analysis, and the distributions of my emotions-indicators across the 5 latent classes of protesting.

6.4 LCA Interpretation

Perhaps the most interesting finding regarding my LCA results (besides, of course, the in-itself very interesting insight into how types of protesting and frequencies of protest-participating are clustered in my sample) – is the pattern of distribution of various emotional indicators across the five classes generated by LCA. As I reported earlier, a very similar pattern characterizes the distribution of PA and NA, as well as distinct emotions of pride, shame, fear, and guilt across the 5 latent protesting-classes[51]. The reason why this is so interesting is that very *different* emotions (e.g., pride and fear) are characterized by the *same* pattern of distribution. It raises the question of whether these similar statistical patterns also imply similarities in the underlying mechanisms linking such diverse emotions and protests? If so, what could these mechanisms be? I will return to this question upon restating what this distributional pattern is.

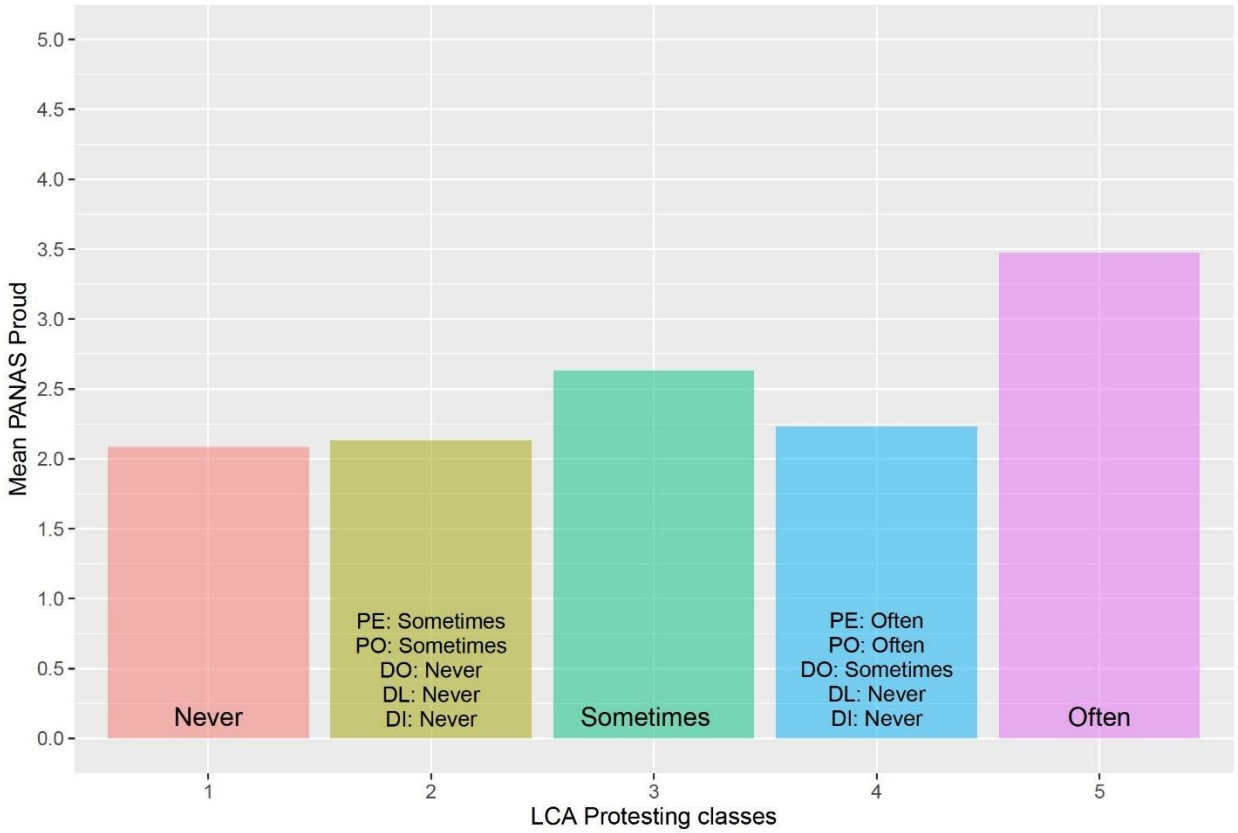
The pattern (see, for example, **Graph 11** – below, or Appendix: **Graph 1A**), can be summarized as follows: Those who *often* took part in all types of protest activities (latent class 5) reported, on average, the highest scores for all of these emotional indicators, out of all the latent classes of protesting. Second-highest average score on these emotional indicators belongs to latent class 3, composed of those who *sometimes* took part in all types of protest activities. Those who *never* protested during the Covid-19 pandemic (latent class 1) always have the lowest mean score – whether it is statistically unique, or similar to scores of latent class 2 and/or 4. **What conclusions can we draw from this distribution pattern?**

Firstly, a comparison between mean scores of multiple emotional indicators for classes 3 and 5 – consisting of respondents who all took part in each type of protest activities (same activities), yet with different frequencies – clearly indicates that emotions are linked with the *frequency* of

[51] As I previously described, only the distribution of diffuse anger diverges somewhat significantly from this main pattern, but it can also be observed as its variation.

protesting. In other words, this comparison (e.g., as in **Graph 11**, below) suggests that higher protesting frequencies (latent class 5) are linked with more intense emotional experiences.

Graph 11: Distribution of PANAS Proud across 5 LCA classes



Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

The second, very interesting and intuitively conceivable, yet seemingly untestable possibility would be that emotions are also linked with the *intensity* of protest activities. Unfortunately, our data do not allow us to isolate the *intensity* of the undertaken protest activity from the *frequency* of participating in it, to observe how emotions and protest-intensities are related – not even after running LCA. For example, if we compare mean values of feeling proud between latent class 2 and latent class 3 (**Graph 11**; **Table 11A** in Appendix) – we can not *unanimously* attribute the increase in mean pride to the addition of more intense types of protest only (e.g., „never“ as opposed to „sometimes“ publicly demonstrating, legally or illegally), since it might rather/also be connected to a higher cumulative protest frequency (more protesting overall). Comparing classes

3 and 4 also fails to deliver *unambiguous* results, for similar reasons. However, this does seem to be the most likely interpretation: the more intense the undertaken protests activities seem to be related to higher emotional intensity. Devising a methodologically sound strategy for isolating these two features of protesting (frequency and intensity) is one of the challenges that future research should take[52].

As announced, upon re-iterating this repeating pattern of emotional distribution across LCA classes, I will now touch upon its wider implications for the emotions-protest link. What could be the reasons behind very *different* emotions *being* distributed in the same way across clusters of protesting frequencies and types, so that higher rates of all studied emotions correspond with higher frequencies of protesting across all types of protest activities? One possibility is simply that people who are generally more emotionally reactive might also tend to protest more. Another, more subtle possibility, is that the more one is personally interested in or affected by certain protest issues (climate changes, social inequality) the more intense their emotional reactions to the given issues and protesting are. Perhaps, this results in both increased negative emotions (e.g., guilt for not doing more to stop climate changes), as well as increased positive emotions (e.g., pride in being a part of a movement that actively advocates environmental protection). Yet another possibility, coming from a reversed causal perspective is that protests are such emotionally rich and diverse events, that protesting often results in heightened levels of many different emotions, as compared to those who protest less often. Future research should apply more suitable methods for precisely answering these questions.

Lastly, I have mentioned that the distribution of feeling „upset" (as my operationalization of anger) across the 5 latent protesting classes differs from the described pattern other emotions had (**Graph 10**; Appendix: **Table 12A**). I will not elaborate on this in much detail. I have already referred to differences in this item's translations in German, Italian, and Polish. I assume that these differences caused this comparably slightly unusual distribution.

[52] It is indeed a challenging task, which should be undertaken both theoretically and methodologically. My data shows that a typical protester tends to participate in more than one protest activity. This makes it challenging to separate the type of activities they take part in and the increased frequency of protesting brought by each additional type of activity. A table that displays this clearly is given in my Appendix, **Table 1A**.

Having interpreted all of my empirical analyses, I will move on to addressing my study's limitations, in the next sub-section.

6.5 Limitations of my study

Certainly, the biggest limitation of this study is its inability to answer causal questions. As mentioned before, the data I used does not allow one to distinguish between emotional experiences which predated protesting and the ones which followed participation in collective action. This is however a limitation that is commonly met in social research. To account for it, in the Literature Review section, I carefully delineated how different emotional experiences might lead to protesting, opposed to how they might be caused by protesting. Relatedly, I also interpreted my empirical models with caution – however, the very terminology used to describe these models often implies a certain causality (e.g., predictor and outcome variables), so I could not fully escape the causality assumption. Again, my Literature Review section often suggests that this assumption is not improbable.

The second and related important limitation of my study is not knowing the exact targets of my respondents' emotions. More broadly, I did not know the context of their emotional experiences, and I could not know for sure whether they were at all linked with protest issues or not. Still, I observed stable patterns of connection between protesting and emotions, and most of my expectations concerning their relationship were met, which implies that I could not have been fully mistaken.

Additionally, using PANAS items that refer to a longer time frame to operationalize distinct emotions („How do you feel since the beginning of the Corona crisis?") might even be a valuable, innovative approach to study emotions and protesting. Although it does not capture immediate emotional targets, it can be said to capture individuals' long-term emotional climates, which in some cases lend themselves to a mobilization that results in protesting. In other words, my research taps into the concept of „Emotional Opportunity Structures" (Riuz-Junco, 2013). According to

Ruiz-Junco, this concept allows us to think about how certain emotions that are experienced in individuals' everyday lives (and not only concerning the immediate protest issues), may contribute to one's propensity to participate in protests. This perspective views emotions as forming an underlying layer of affects, cognitions, and action tendencies that can be mobilized by social movements (2013). It perspective allows us to think of emotions that potential protestors „bring along" to a social movement as a resource (Flam, 2005, p. 26; Turner, 2014) that can be enhanced and used for realizing specific goals of the given social movement (Britt & Heise, 2000, p. 264). My use of PANAS items that ask the respondents to generalize the emotions they experienced since the beginning of the pandemic might be seen as an unintentional contribution to this perspective. Additionally, it can be seen as a contribution to Jasper's (2011) suggestion of studying the impact of various types of emotional states (not only short-term and clearly directed, but also long-term, and diffuse) on protesting.

Another characteristic of my study that can be seen as a limitation is that it empirically isolates emotions from other well-established protest predictors, such as social identity and perceived group efficacy. My models did not include these concepts so the obtained effects of emotions are likely exaggerated. However, it was a purposeful decision on my side. This study did not aim at establishing and testing a comprehensive model of protest participation. It rather aimed at revealing the emotional richness of protest behavior, and outlining a more detailed link between protest behavior and (different types of) emotions, as one factor in the complex causal chain that motivates protest participation. I would even argue that deeper insights into the role of any distinct protest predictor can only be made at the cost of somewhat isolating it from other determinants. The research cycle should however not end at this point, as this knowledge should be incorporated into existing models at a higher level of complexity.

Similarly, I made a purposeful decision to abstract from different issues of protesting, and to rather focus on the as-general-as-possible link between emotions and protest. My rationale was that this link would remain stable across different protest issues, in at least its broadest outlines. I hold that this strategy succeeded in its aim – giving us a general overview of how different emotional experiences and protesting are related. Further research should examine how the impact of certain emotional experiences on motivating protesting might differ across protest issues.

6.6 Contributions of my study

Although my study had limitations that need to be kept in mind, it also resulted in several important contributions to the state of research on Emotions and Social movements. It approached emotions in more complexity than empirical (especially quantitative) studies typically do – by studying the impact of „emotional constellation“ (PA, NA), as well as distinct emotions and their interactions (moderating effects) on protesting. It also applied innovative methods (LCA, EFA), and used a unique, five-countries sample to capture the complexity of emotional experiences concerning protest. Also, rather than studying individuals' imagined future participation in collective actions (as many studies do – e.g., Iyer et al., 2007; Leach et al., 2006), this dataset enabled me to distinguish between individuals who truly have and have not protested in a certain time-frame, which can be seen as a small methodological contribution on its own.

My results clearly show that positive emotions (PA) are closely related to protesting, and should not be excluded from emotions-informed studies of protest participation. Even more importantly, this study empirically shows how emotional experiences of different and even opposing properties such as appraisals and action tendencies (e.g., PA and NA, shame and pride) might exhibit a joined effect on protesting, through „balancing“ each other's de-mobilizing aspects and strengthening the activating ones. In doing so, my study greatly contributes to the state of the art of research on Jasper's (2011) „moral batteries“ concept in particular.

Additionally, this study belongs to only a handful of works that control for the impact of other emotions when studying how a certain emotion impacted protesting (also done in: Asún et al., 2020; Rees et al., 2015), making its findings even more trustworthy. Lastly, although I mostly used very simple statistical models to „predict“ protesting, they nevertheless managed to account for unusually significant shares of the total variance in my protesting indicators (e.g., **Table 14**, **Table 16**), demonstrating that emotions indeed play a very important role in explaining protest behavior, and motivating increased future efforts in this study field.

6.7 Directions for future research

Future research should, of course, find ways to build upon this study's strengths and overcome its weaknesses. An entire study program might be devised from the questions that this study has touched upon, but unfortunately had not been able to answer.

For one, future research could focus on deepening our knowledge on how wider political and cultural contexts might influence the relationship between protest and certain emotional experiences. For example, even though it was not one of its primary aims, this study showed that feelings of hostility and fear interact differently as protest predictors in different parts of our sample (Appendix, **Table 22A**). Similarly, Kleres and Wettergren (2017) show that messages of anger and hope have different effectiveness in helping potential climate activists overcome fears in different parts of Europe. Also, Flam (2005) suggests that fear plays different protest-related roles in democratic as opposed to authoritarian societies.

As we know, different cultures can have different „feeling rules" (Hochschild, 1983), which might impact the link between emotions and protest, and can be studied in the future. A good example can be found in the commonly met anthropological finding that societies differ in terms of their propensity towards eliciting guilt or shame (Wallbott & Scherer, 1995), as well as in the claim that different norms for self-reflective emotions (such as guilt, shame, and pride) characterize different cultures (Eid & Diener, 2001). This might be a promising direction for future studies, as this study points exactly to the self-reflective emotions as closely linked with protesting. Different societies are also suggested to have different norms for feeling mixed emotions (Miyamoto et al., 2010), which also featured as potent predictors of protest in this study, as well as different cultural emotions-display rules, and generalized feeling expectations (Eid & Diener, 2001). All of the above points to comparative research as a good direction for future studies.

As already mentioned, another way to improve this study and built upon it would be to focus more specifically on different types of protest activities and different protest causes and issues. We explored the idea that different emotional profiles predispose people towards different protest experiences (e.g., online protesting as a less confrontational type of protest activity, as opposed to

demonstrating publicly). Even though we could not support this idea unambiguously, it is definitely worth further future efforts. An even further step worth taking is focusing on individual social movements and studying their emotional opportunity structures, as well as their strategies for mobilizing potential protesters' emotional experiences, in a greater depth.

Also, focusing on different „families" or „types" of emotions seems to be a task worthy of further pursuit, as already suggested in the literature (most notably by: Jasper, 2011). Also interesting would be to compare the effects of „individually felt" and „group-based" emotions on protesting – a distinction that our data, unfortunately, did not allow us to draw. One could also study potential emotional differences between first-time protesters and protesters that are already actively involved in a social movement, as well as the differential impact of emotions as motivators of one-time protest participation as opposed to continual social activism (Asún et al., 2020).

Causal inference is often seen as the primary goal of scientific pursuit. We have explained why this study could not directly strive towards such a goal. It however lays a solid foundation for future research, by asking many important causal questions, even if it was not able to answer all of them. Future studies should include precise, pre-, and post-protest measurements of their participants' emotional states. Additionally, even if it causes losses in ecological validity, future studies should come up with experimental ways for testing how distinct emotions impact a willingness to participate in protests.

Finally, as ambiguous and dynamic phenomena that depend on meaning individuals give them, emotions lend themselves well to qualitative research perspective. Qualitative inquires should complement qualitative ones, and the two types of research should mutually inspire and drive each other forward.

7 CONCLUSION

This study attempted to answer the research question of which emotions predicted protest participation in five European countries during the Covid-19 pandemic. The choice of emotional experiences it tested as potential predictors of protest, as well as its choice of methods used to test

their hypothesized effects and explore further emotional complexities of protesting, can be seen as accounting for the observed gaps in the wider literature on emotions and social movements. For example, a lack of focus on constellations of simultaneously experienced emotions was accounted for by its focus on the effects of Positive and Negative Affect on protest participation.

The often-neglected positive emotions (PA) were shown to be a strong predictor of protest participation alongside NA. A positive moderation effect of PA on NA as a predictor of protest was also hypothesized. The study additionally featured several distinct emotions as potential predictors of protest, testing their main effects and their interaction (moderation) effects. Pride, anger, shame, and guilt were found to be positively related to protesting in our sample.

Testing our hypotheses, we showed how emotional constellations (both PA and NA) play an important role as predictors of protest participation, and that their effects can align, contributing to participation even more strongly. Generally, the theme of a combined, aligning effect of emotions with different characteristics on protest participation, was an important motive of this study, and it was also shown in the cases of pride and shame, and indicated by the results of exploratory factor analyses.

Importantly, our results aligned with our theoretical expectations in not indicating that the Covid-19 pandemic drastically changed the connection between emotions and protesting. We rather approached the pandemic as a suitable context for testing the connection between emotions and protesting, since it introduced novel protest grievances and intensified, especially in its early phases, negative emotions. The results we obtained pose no doubt to the validity of such an approach.

We also accounted for the pandemic context in our methodological choices. The indicator of protesting we mainly used was wide enough to include both indoor and outdoor activities, accounting for some respondents' potential hesitation to participate in public protest actions. Additionally, we checked many of the results' robustness on the second panel-wave dataset including respondents from Germany. This data set, obtained in a later phase of the Covid-19 pandemic, when its initial impact would be expected to somewhat decrease, showed no major differences in comparison to the results obtained on the larger, five-countries sample from

October-November 2021. Also, we have tested multiple ways in which the pandemic context might have influenced certain findings. Although most of them were not supported by the models, we have indicated where the impact of the pandemic context on our results might have been observable.

This study also shows how innovative methods can be used to draw a detailed image of the emotional complexities of protesting. Additionally, it can also be used as one of a handful of examples of controlling for the effects of other distinct emotions while testing a specific distinct emotion's impact on protest, which would improve the state of scholarship on emotions and social movements, and solidify its findings.

The study, as any other, certainly had its limitations – some of which were based on the dataset it used. However, it brings very interesting findings and can be used to build upon in the future.

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9 APPENDIX

Survey Questions:

Seit Beginn der Corona-Krise bis heute: Wie oft haben Sie ...?

- ...an einer genehmigten Protestaktion im öffentlichen Raum teilgenommen (z.B. Demonstration, Menschenkette)?
- ...an einer nicht genehmigten Protestaktion im öffentlichen Raum teilgenommen (z.B. Demonstration, Blockade)?
- ...an einer Protestaktion im Internet teilgenommen (z.B. Netzstreik)?
- ...politische Inhalte im Internet gepostet oder geteilt, zum Beispiel auf Blogs, per E-Mail oder in sozialen Medien wie Facebook oder Twitter?
- ...sich an einer Petition oder Unterschriftensammlung beteiligt?

1: Nie	2: Selten	3: Manchmal	4: Oft	5: Sehr oft	6: keine Antwort

Table 1A: Overlap between participation in different types of protest activities

	no demo*	petition	post online	demo online	demo	demo illegal
How many respondents participated *only* in *this* activity?	4562	770	678	28	34	22
How many respondents participated in *at least one other*, less intense protest activity?		/	635	398	354	779
Out of the previous row - how many respondents took part in *all* less intense activities as well			635	269	161	594
In total, how many respondents took part in this activity, not excluding other activities?	4562	2799	2654	1361	1090	804

* This column indicates the total number of respondents who have taken part in any type of protest activity since the beginning of the Covid-19 pandemic

Source: Own calculations

Table 2A: Frequencies of illegally protesting by issues that motivated protests

	Often	Very often	Total
Climate protection	97	62	159
Corona - freedom restrictions	76	47	123
Racism	55	41	96
Corona - financial aid	39	36	75
Other issues and causes	13	9	22

Source: Own calculations

Table 3A: Descriptive statistics - Characteristics of my PA and NA:
Comparisons between German participants who participated in both panel waves

	Germany - Wave 1 n = 1004		Germany - Wave 2 n = 1004	
	Positive Affect	Negative Affect	Positive Affect	Negative Affect
min	1	1	1	1
max	5	5	5	5
mean	2.58	2.06	2.65	1.98
median	2.60	1.90	2.65	1.80
SD	0.82	0.79	0.81	0.80
skeweness	0.09	0.74	0.13	0.84
kurtosis	2.78	3.17	2.73	3.19

Source: Own calculations

Table 4A: OLS Regression with PA and NA as predictors of the combined protesting indicator

Data: Solziv Panel Wave 2

Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-3.95	1.68	-2.35	**0.019**
Gender: Female*	-2.80	0.57	-4.89	**0.000**
Age (years)	-0.16	0.02	-7.95	**0.000**
Positive Affectivity	2.77	0.35	7.98	**0.000**
Negative Affectivity	5.12	0.36	14.12	**0.000**
Observations	1002			
R^2/R^2 adjusted	0.284 / 0.281			

*Reference category: Male

Notes: Bolded p-values indicate significance below 0.05

Source: Own calculations

Table 5A: OLS Regression with PA*NA interaction effect - SolZiv Panel Wave 2

Dependent Variable: Combined Protest Indicator				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	12.86	2.38	5.40	**0.000**
Gender: Female*	-2.58	0.55	-4.70	**0.000**
Age (years)	-0.16	0.02	-8.06	**0.000**
Positive Affectivity	-3.46	0.73	-4.74	**0.000**
Negative Affectivity	-3.87	1.00	-3.87	**0.000**
PA*NA	3.29	0.34	9.59	**0.000**
Observations		1002		
R^2/R^2 adjusted		0.345 / 0.341		

*Reference category: Male
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 6A: OLS Regression with distinct emotions as predictors - SolZiv Panel Wave 2

Dependent Variable: Combined Protest Indicator				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-2.63	1.41	-1.86	0.063
Gender: Female*	-0.11	0.02	-5.40	**0.000**
Age (years)	-1.90	0.54	-3.50	**0.000**
Feeling proud	1.11	0.24	4.72	**0.000**
Feeling upset	0.52	0.24	2.12	**0.034**
Feeling afraid	0.02	0.36	0.06	0.953
Feeling guilty	4.55	0.39	11.67	**0.000**
Feeling ashamed	1.75	0.36	4.88	**0.000**
Observations	1002			
R^2/R^2 adjusted	0.369 / 0.365			

*Reference category: Male
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 7A: OLS Regression with distinct emotions' interaction effects - SolZiv Panel Wave 2

Dependent Variable: Combined Protest Indicator				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	0.68	1.99	0.34	0.733
Age (years)	-0.11	0.02	-5.55	**0.000**
Gender - Female*	-2.01	0.53	-3.78	**0.000**
Pride	-1.08	0.40	-2.71	**0.007**
Anger	1.35	0.44	3.09	**0.002**
Fear	1.79	0.76	2.35	**0.019**
Guilt	3.90	0.39	9.96	**0.000**
Shame	-1.63	0.62	-2.63	**0.009**
Pride:Shame	1.42	0.21	6.82	**0.000**
Anger:Fear	-0.52	0.21	-2.50	**0.012**
Observations	1002			
R^2/R^2 adjusted	0.401 / 0.395			

*Reference category: Male
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 8A: Pearson Correlations between PANAS items

	proud	upset	afraid	scared	ashamed	guilty
PANAS proud	1.00	-0.01	-0.03	-0.01	0.16	0.22
PANAS upset		1.00	0.46	0.49	0.32	0.21
PANAS afraid			1.00	0.66	0.35	0.32
PANAS scared				1.00	0.36	0.29
PANAS ashamed					1.00	0.52
PANAS guilty						1.00

Source: Own calculations

Table 9A: Factor Correlation Matrix – PANAS items in the sample of "protesters"

Factor	1	2	3
1	1.000	-0.028	0.392
2		1.000	0.155
3			1.000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.
Source: Own calculations

Table 10A: Factor Correlation Matrix – PANAS items in the sample of "non-protesters"

Factor	1	2	3
1	1.000	-0.034	0.136
2		1.000	0.134
3			1.000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.
Source: Own calculations

Table 11A: Means of different emotional indicators across latent protesting classes

Latent protesting classes	Mean PA	Mean NA	Mean pride	Mean anger	Mean fear	Mean shame	Mean guilt
1	2.52	1.98	2.08	2.51	2.12	1.43	1.29
2	2.59	2.22	2.13	2.87	2.33	1.57	1.43
3	2.79	2.67	2.63	2.90	2.76	2.43	2.40
4	2.75	2.44	2.23	3.32	2.49	1.90	1.54
5	3.52	3.20	3.47	3.48	3.21	3.08	3.05

Source: Own calculations

Table 12A: Tukey multiple comparisons of PA means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.069	0.002	0.137	**0.042**
3-1	0.270	0.181	0.360	**0.000**
4-1	0.227	0.108	0.345	**0.000**
5-1	0.998	0.855	1.141	**0.000**
3-2	0.201	0.095	0.307	**0.000**
4-2	0.157	0.026	0.288	**0.009**
5-2	0.929	0.775	1.082	**0.000**
4-3	-0.044	-0.187	0.100	0.921
5-3	0.728	0.563	0.892	**0.000**
5-4	0.771	0.590	0.953	**0.000**

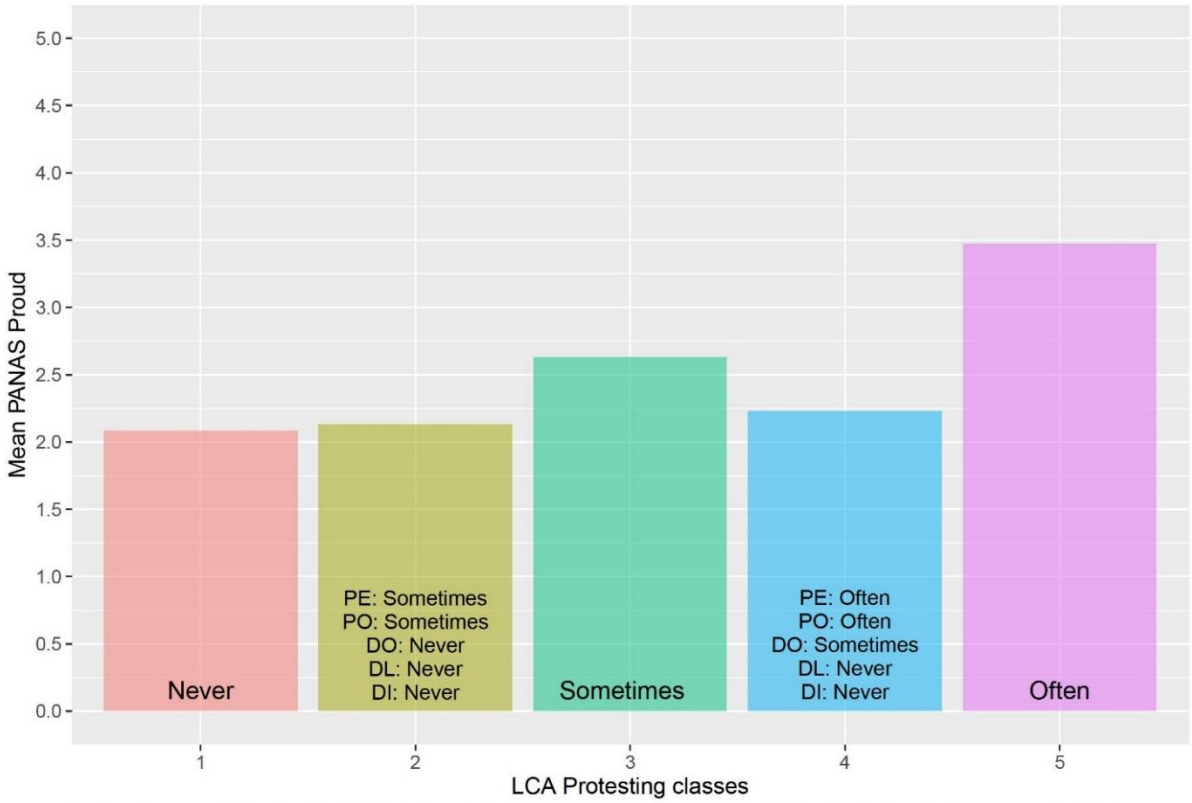
Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 13A: Tukey multiple comparisons of PANAS NA means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.24	0.17	0.30	**0.000**
3-1	0.69	0.60	0.78	**0.000**
4-1	0.46	0.34	0.58	**0.000**
5-1	1.22	1.08	1.36	**0.000**
3-2	0.45	0.35	0.56	**0.000**
4-2	0.22	0.10	0.35	**0.000**
5-2	0.98	0.83	1.13	**0.000**
4-3	-0.23	-0.37	-0.09	**0.000**
5-3	0.53	0.37	0.69	**0.000**
5-4	0.76	0.58	0.94	**0.000**

Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Graph 1A: Distribution of PANAS Proud across 5 LCA classes



Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

Table 14A: Tukey multiple comparisons of PANAS pride means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.048	-0.053	0.149	0.692
3-1	0.547	0.414	0.680	**0.000**
4-1	0.145	-0.031	0.321	0.161
5-1	1.390	1.177	1.603	**0.000**
3-2	0.499	0.342	0.656	**0.000**
4-2	0.097	-0.098	0.292	0.652
5-2	1.342	1.113	1.571	**0.000**
4-3	-0.402	-0.615	-0.188	**0.000**
5-3	0.843	0.599	1.088	**0.000**
5-4	1.245	0.974	1.515	**0.000**

Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

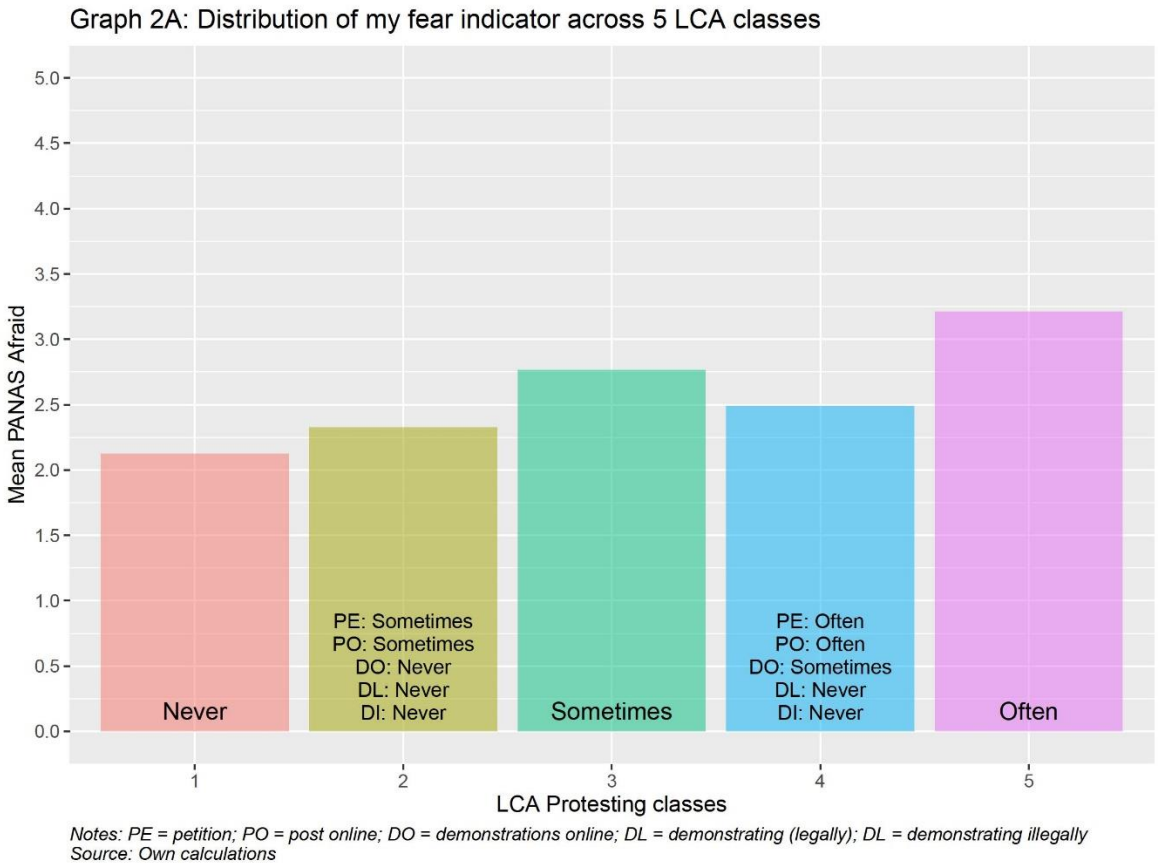


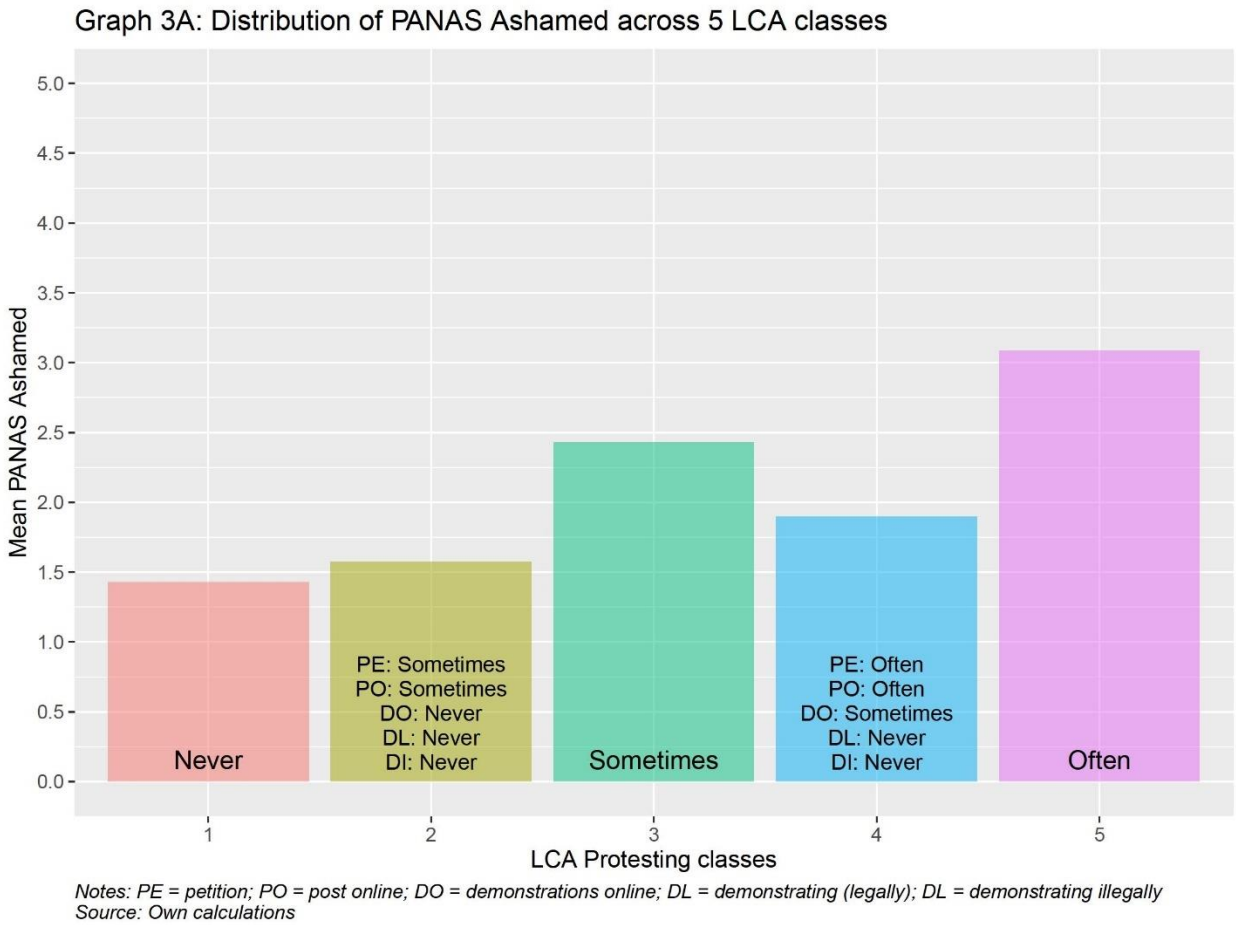
Table 15A: Tukey multiple comparisons of fear* means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.202	0.097	0.307	**0.000**
3-1	0.640	0.501	0.780	**0.000**
4-1	0.365	0.181	0.549	**0.000**
5-1	1.089	0.867	1.312	**0.000**
3-2	0.438	0.274	0.603	**0.000**
4-2	0.163	-0.040	0.367	0.185
5-2	0.887	0.648	1.126	**0.000**
4-3	-0.275	-0.498	-0.052	**0.007**
5-3	0.449	0.193	0.705	**0.000**
5-4	0.724	0.441	1.007	**0.000**

*As described earlier, this indicator was obtained by combining PANAS afraid and PANAS scared indicators

Note: Bolded p-values indicate significance below 0.05

Source: Own calculations



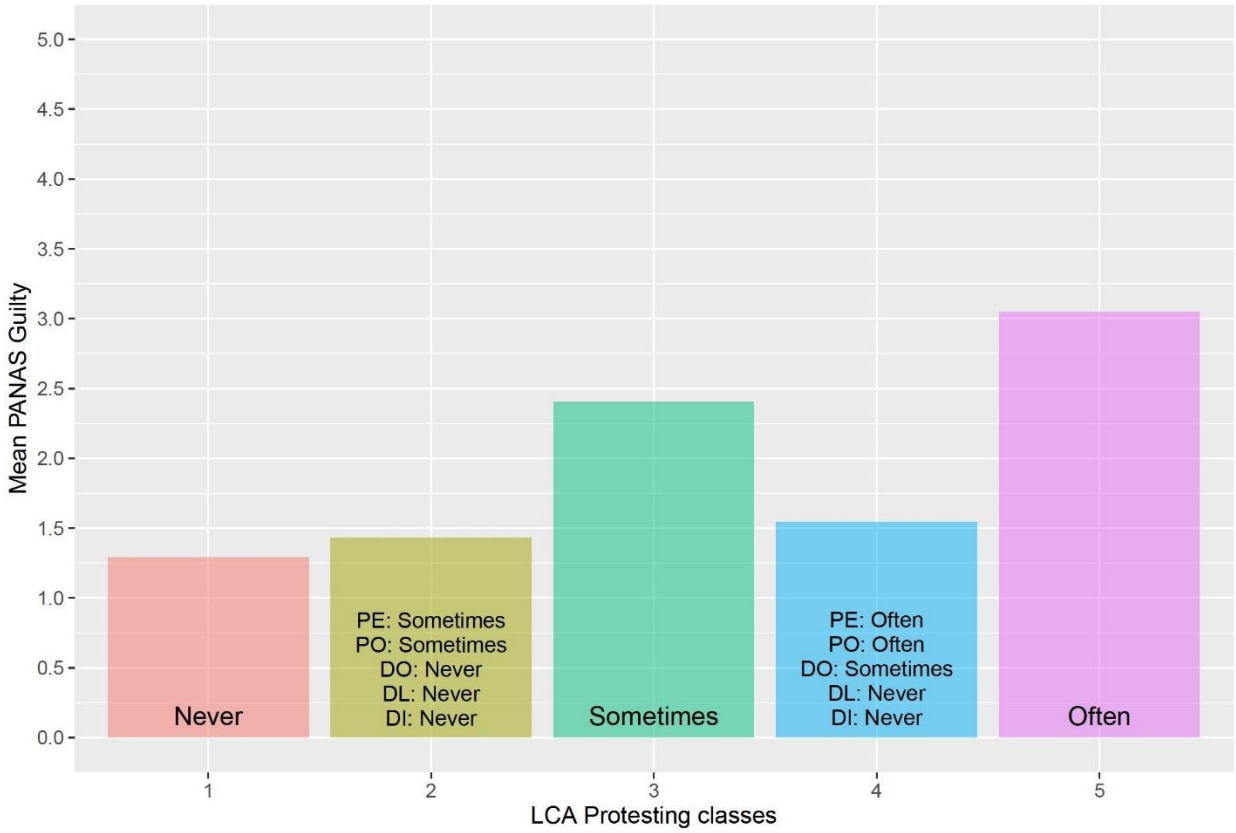
Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

Table 16A: Tukey multiple comparisons of shame means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.143	0.063	0.223	**0.000**
3-1	1.002	0.896	1.107	**0.000**
4-1	0.468	0.328	0.607	**0.000**
5-1	1.654	1.485	1.822	**0.000**
3-2	0.859	0.734	0.983	**0.000**
4-2	0.324	0.170	0.479	**0.000**
5-2	1.510	1.329	1.692	**0.000**
4-3	-0.534	-0.703	-0.365	**0.000**
5-3	0.652	0.458	0.846	**0.000**
5-4	1.186	0.972	1.400	**0.000**

Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Graph 4A: Distribution of PANAS Guilty across 5 LCA classes



Notes: PE = petition; PO = post online; DO = demonstrations online; DL = demonstrating (legally); DL = demonstrating illegally
Source: Own calculations

Table 17A: Tukey multiple comparisons of guilt means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.143	0.073	0.212	**0.000**
3-1	1.115	1.024	1.207	**0.000**
4-1	0.253	0.132	0.374	**0.000**
5-1	1.758	1.611	1.904	**0.000**
3-2	0.973	0.864	1.081	**0.000**
4-2	0.111	-0.023	0.245	0.161
5-2	1.615	1.458	1.772	**0.000**
4-3	-0.862	-1.009	-0.715	**0.000**
5-3	0.642	0.474	0.811	**0.000**
5-4	1.504	1.318	1.690	**0.000**

Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 18A: Tukey multiple comparisons of anger (PANAS upset) means across latent classes of protesting

		95% Confidence Interval		
Latent Classes of Protesting	Mean Difference	Lower Bound	Upper Bound	p-adjusted
2-1	0.367	0.259	0.476	**0.000**
3-1	0.390	0.246	0.533	**0.000**
4-1	0.813	0.624	1.003	**0.000**
5-1	0.969	0.740	1.199	**0.000**
3-2	0.023	-0.147	0.192	0.996
4-2	0.446	0.236	0.656	**0.000**
5-2	0.602	0.356	0.849	**0.000**
4-3	0.424	0.194	0.654	**0.000**
5-3	0.580	0.316	0.843	**0.000**
5-4	0.156	-0.135	0.447	0.588

Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 19A: OLS Regression with protest issues as predictors of feeling guilty

Dependent Variable: PANAS guilt				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.56	0.06	41.42	**0.000**
Age (years)	-0.02	0.00	-19.38	**0.000**
Gender [Female]	-0.14	0.03	-4.52	**0.000**
Climate protection [yes]	0.12	0.03	3.64	**0.000**
Racism [yes]	0.01	0.03	0.32	0.749
Corona - freedom restrictions [yes]	0.05	0.04	1.37	0.171
Corona - financial aid [yes]	-0.03	0.04	-0.75	0.455
Other issues and causes [yes]	-0.17	0.04	-4.14	**0.000**
Observations: 3936 (only respondents who have protested for at least one of these issues)				
R^2/R^2 adjusted: 0.108 / 0.106				

Reference categories: Gender - Male; Protest issues - No
Question wording for protest issues: “Have you protested for/against this cause since the beginning of Corona crisis?”
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 20A: OLS Regression with protest issues as predictors of feeling ashamed

Dependent Variable: PANAS shame (1-5)				
Predictors	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	2.55	0.07	37.93	**0.000**
Age (years)	-0.02	0.00	-14.63	**0.000**
Gender [Female]	-0.19	0.03	-5.51	**0.000**
Climate protection [yes]	0.08	0.04	2.25	**0.024**
Racism [yes]	0.00	0.04	-0.01	0.996
Corona - freedom restrictions [yes]	0.22	0.04	5.24	**0.000**
Corona - financial aid [yes]	-0.01	0.04	-0.24	0.809
Other issues and causes [yes]	-0.16	0.04	-3.72	**0.000**

Observations: 3936 (only respondents who have protested for at least one of these issues)
R^2/R^2 adjusted: 0.108 / 0.106

Reference categories: Gender - Male; Protest issues - No
Question wording for protest issues: "Have you protested for/against this cause since the beginning of Corona crisis?"
Notes: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 21A: OLS Regression with distinct emotions as predictors across different samples:
Inclusion of PANAS hostile instead of PANAS upset indicator

	Full Sample			German-speaking sample			Italy and Poland			Wave 2 Germany		
Predictors	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)
(Intercept)	-2.45	0.48	**0.000**	-2.59	0.55	**0.000**	-0.94	0.95	0.323	-2.93	1.37	**0.033**
Age (years)	-0.07	0.01	**0.000**	-0.08	0.01	**0.000**	-0.08	0.01	**0.000**	-0.10	0.02	**0.000**
Gender: Female*	-1.64	0.19	**0.000**	-1.58	0.22	**0.000**	-1.69	0.38	**0.000**	-1.74	0.54	**0.001**
Pride	0.97	0.08	**0.000**	0.91	0.09	**0.000**	1.03	0.16	**0.000**	1.04	0.23	**0.000**
Hostile	1.45	0.11	**0.000**	1.67	0.13	**0.000**	0.93	0.20	**0.000**	1.84	0.35	**0.000**
Fear	0.14	0.10	0.137	0.04	0.12	0.735	0.01	0.17	0.976	-0.31	0.35	0.374
Guilt	2.98	0.13	**0.000**	2.80	0.15	**0.000**	3.54	0.26	**0.000**	4.23	0.39	**0.000**
Shame	1.37	0.12	**0.000**	1.47	0.14	**0.000**	1.19	0.25	**0.000**	1.41	0.36	**0.000**
Observations	8251			5861			2390			1002		
R^2/R^2 adjusted:	0.277 / 0.277			0.283 / 0.282			0.266 / 0.264			0.384 / 0.380		

*Reference category: Male
Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 22A: OLS Regression with distinct emotions' interaction effects, across different samples
Dependent Variable: The combined protesting indicator

	Full Sample			German-speaking sample			Italy and Poland			Wave 2 Germany		
Predictors	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)	Estimate	Std. Error	Pr(>|t|)
(Intercept)	2.65	0.71	**0.000**	3.99	0.80	**0.000**	1.53	1.48	0.303	0.12	2.00	0.953
Age (years)	-0.07	0.01	**0.000**	-0.08	0.01	**0.000**	-0.07	0.01	**0.000**	-0.10	0.02	**0.000**
Gender: Female*	-1.55	0.19	**0.000**	-1.39	0.21	**0.000**	-1.70	0.38	**0.000**	-1.76	0.53	**0.001**
Pride	-0.99	0.14	**0.000**	-1.27	0.17	**0.000**	-0.34	0.28	0.220	-0.99	0.39	**0.012**
Upset	0.49	0.18	**0.006**	0.79	0.21	**0.000**	-0.12	0.40	0.771	1.83	0.52	**0.000**
Hostile	0.65	0.25	**0.009**	-0.25	0.30	0.389	1.57	0.48	**0.001**	0.23	0.77	0.769
Fear	-0.07	0.23	0.780	-0.59	0.27	**0.027**	0.54	0.50	0.284	1.54	0.76	**0.041**
Guilt	2.58	0.13	**0.000**	2.30	0.15	**0.000**	3.29	0.27	**0.000**	3.53	0.39	**0.000**
Shame	-1.52	0.21	**0.000**	-1.64	0.23	**0.000**	-1.09	0.46	**0.017**	-1.79	0.61	**0.004**
Pride:Shame	1.26	0.08	**0.000**	1.40	0.09	**0.000**	0.90	0.15	**0.000**	1.33	0.21	**0.000**
Upset:Afraid	-0.12	0.07	0.091	-0.21	0.09	**0.013**	-0.03	0.13	0.851	-0.95	0.25	**0.000**
Hostile:Afraid	0.24	0.08	**0.003**	0.65	0.10	**0.000**	-0.20	0.14	0.171	0.64	0.28	**0.024**
Observations	8250			5860			2390			1002		
R^2/R^2 adjusted:	0.302 / 0.301			0.320 / 0.319			0.278 / 0.274			0.419 / 0.412		

*Reference category: Male
Note: Bolded p-values indicate significance below 0.05
Source: Own calculations

Table 23A: Varying effects of individual PANAS items as predictors of the protesting indicator

	Controlling for (in addition with age and gender):							
	No emotion	Proud	Upset	Hostile	Afraid	Ashamed	Guilty	Full set of emotions
Proud	1.74	/	1.75	1.45	1.77	1.32	1.07	0.97
Upset	1.32	1.34	/	0.42	0.67	0.54	0.76	0.17[A]
Hostile	3.08	2.88	2.87	/	2.69	2.05	1.90	1.41
Afraid*	1.85	1.88	1.46	0.89	/	0.77	0.76	0.07[B]
Ashamed	3.55	3.30	3.33	2.70	3.20	/	1.95	1.35
Guilty	4.70	4.39	4.49	3.91	4.38	3.60	/	3.00

* This indicator is obtained by combining PANAS “afraid” and PANAS “scared” items
Notes: All effects are statistically significant, unless indicated.
A: p = 0.0585
B: p = 0.5347
Source: Own Calculations

10 DECLARATION

Department of Politics & Social Sciences Examination Office

MA Sociology – European Societies

Declaration in lieu of oath re. Master's thesis

by

Višković, Vukašin, 5398542

(Surname, first name(s), student ID No.)

This is to confirm that my Master's thesis was composed/authored independently by myself, using solely the referenced sources and support.

I additionally assert that this thesis has not been part of any other examination process.

15.02.2022 (Date)

Vukašin Višković (Signature)